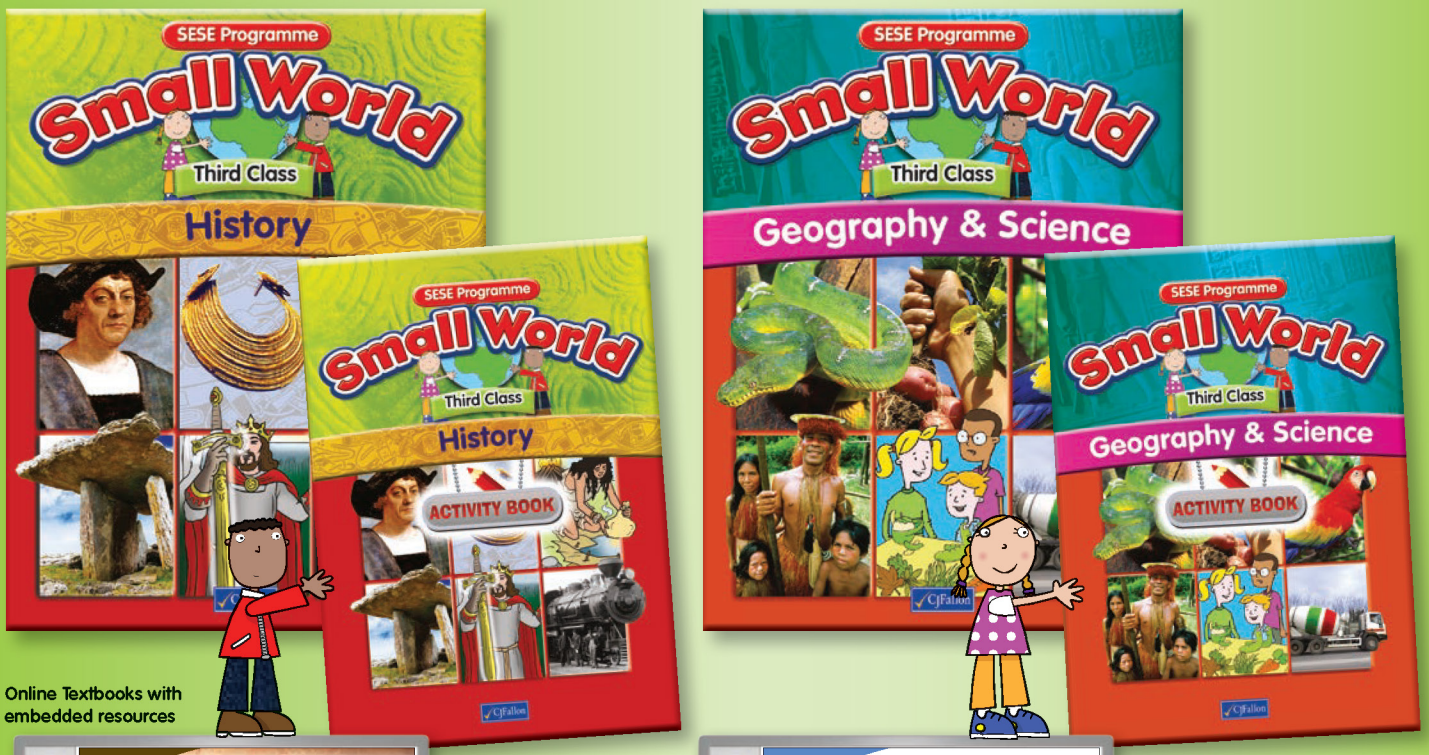
SESE Programme

Small World

Third Class

SESE – History, Geography & Science

Teacher's Manual



Online Textbooks with embedded resources

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SESE Programme

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Third Class

Teacher's Manual

History
Geography & Science

CJFallon

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At the time of publication, all the web addresses referenced in this manual were active and contained information which was relevant to the SESE curriculum. However, CJ Fallon and the authors do not accept responsibility for the information contained in these websites.

Web references and external content may change beyond our control. These links and references are intended as a resource and as a guide for teachers. Pupils should be supervised at all times when investigating websites.

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Contents

Introduction

Welcome to the *Small World History, Geography & Science Teacher's Manual* for Third Class. We hope that you will enjoy using it as much as we enjoyed creating it.

The manual should be read in conjunction with the NCCA Curriculum and NCCA Curriculum guidelines for SESE. There is such a broad canvas in the SESE syllabi, that you have the freedom to choose from very many topics. Some of these you are likely to explore in great detail, particularly when a topic grabs the attention of your pupils. When choosing the order in which we set out the topics, we began with the 'easier' ones and progressed to those with more challenging language and concepts. You may, of course, decide to study them in a different order.

One feature that sets this series apart from earlier texts is the embedding of relevant www material in the e-book versions of the textbooks. Your school principal will need to contact the NCTE (National Centre for Technology in Education), if this hasn't already been done, to change your school's content filtering level to allow YouTube videos. To make full use of the embedded resources in the e-books, Level 4 filtering will be required. **The NCTE Content Filtering Level Form is printed on page 11.**

Showing web-based videos and other content to pupils is not without risk. At the time of publishing, the weblinks were checked and found to be fine, but the internet is in a constant state of change. We urge you to check all web content in advance to be on the safe side. If you discover anything of which you feel we ought to be aware, please contact the publisher and we will correct or remove the link. That said, don't be put off. Of all the subject matter in primary school, SESE is probably the package that most lends itself to interactive and audio-visual material. Use it to the full to enrich your lessons and to give pupils a memorable experience of a theme. We have made it as easy as possible – no more trawling through numerous sites to find something relevant and child-friendly. Simply click the link in the e-book version of a textbook on your IWB and voilà!

If you have doubts about using the more relaxed level of NCTE filtering that allows YouTube, we urge you to talk to teachers in the many schools that have taken this step. To our knowledge, there have been no negative or worrying events. As always, consult your school's *Internet Acceptable Use Policy,* view material in advance, and, needless to say, never conduct a live search in the presence of children.

This manual occasionally provides background information on a topic for the teacher. It is not always intended to be taught; rather it should serve to give the teacher a deeper insight into the topic. We hope you will find some interesting nuggets contained therein, which you can toss nonchalantly out to your class and make them believe you're a real expert!

History, Geography and Science are nice subjects to teach. There is so much scope for discovery, research and experimentation. If you can radiate a sense of wonder, if you can indicate surprise at an outcome, if you can appear puzzled or amazed or doubtful as the situation requires, then you will arouse the child's natural curiosity, you will pique his/her interest, and your job is done.

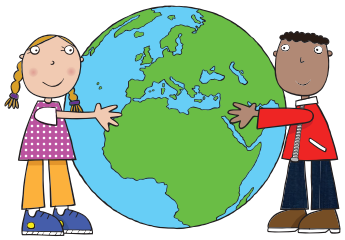
Note (1): As additional time has now been allocated to **Literacy and Numeracy**, the unit content could form the basis of an English lesson. Reading and exploring the textbooks will help children's literacy through vocabulary and language development, along with developing skills such as skimming and scanning.

Note (2): The *Teacher's Manual* is available in an electronic format from the CJ Fallon website. This will facilitate cutting and pasting yearly schemes/fortnightly plans, etc. into the Primary Curriculum Planning Tool. For the Primary Curriculum Planning Tool, see: www.curriculumonline.ie → *Home* → *Primary School Curriculum.*

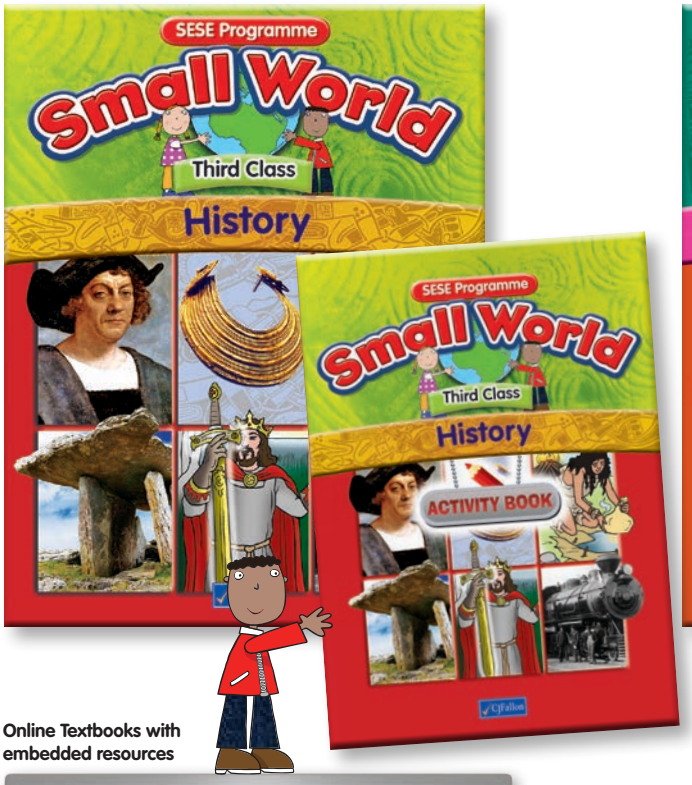
Note (3): Many of the assessment strategies in the *Teacher's Manual* correspond to those recommended by the NCCA. Examples and templates are provided for teachers to make them user friendly.

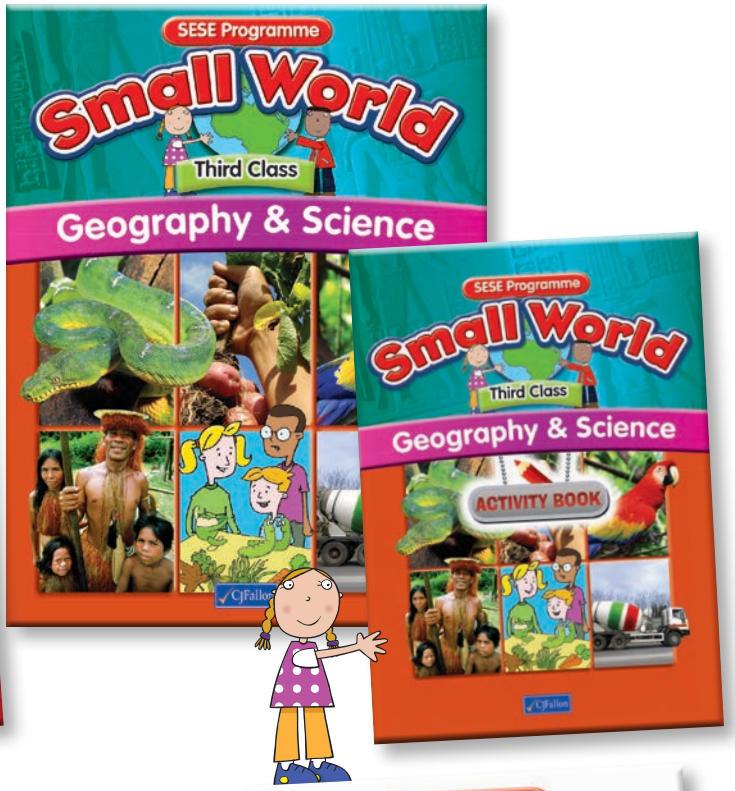
The Small World Team

SESE Programme

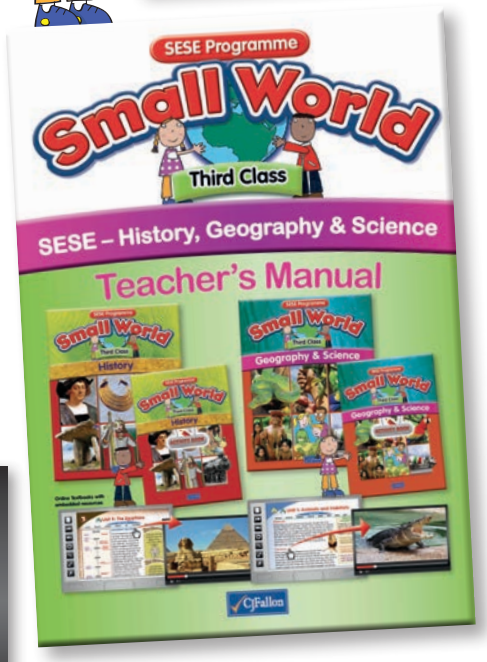


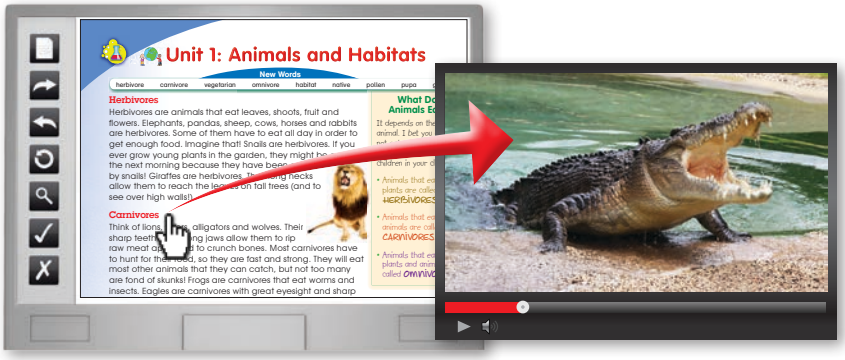
Series Components for Third Class





Online Textbooks with embedded resources





Small World SESE – Overview of the Programme

Note About Health and Safety

The issue of your personal safety and the safety of those in your charge must never be taken lightly. The producers of this series urge you to carefully plan and supervise all scientific and geographical research, experiments, activities and field trips. A moment of inattention can have unpleasant consequences. Always try to anticipate what might go wrong and take all appropriate steps to avoid putting yourself, your pupils or others in a situation of potential danger. The tasks and activities described and recommended in this series have been carried out many times by others and are deemed safe. However, engaging with unfamiliar equipment, procedures and situations requires extra vigilance and attentiveness. Be careful with experiments and research, especially those involving chemicals, forces, light (eyes) and animals. Check for allergies to animals, chemicals, nuts, etc. Never use mains electricity in experiments. Occasionally, protective clothing such as plastic gloves may be required and of course, washing hands after using soil, compost or similar is recommended. Websites should be checked in advance to ensure that there is no violent or explicit content.

Above all, use common sense and ensure that everything is planned and prepared in advance. If in doubt, seek extra help and advice. Check your school policies on SESE and school trips. Permission from parents and guardians may be required for field trips. Check your school policies on acceptable use of the internet. A copy of the Content Filtering Form (CFL) from the National Centre for Technology in Education (NCTE) follows on page 11.

	Pupil Textbook	Pupil Activity Book	Pupil Textbook	Pupil Activity Book		
	History	History	Geography & Science	Geography & Science	Teacher's Manual	Digital Material
Third Class	96 pages	40 pages	120 pages	48 pages	✓	Colour-coded links embedded in the e-book
Fourth Class	96 pages	40 pages	120 pages	48 pages	✓	Colour-coded links embedded in the e-book
Fifth Class	112 pages	40 pages	128 pages	48 pages	✓	Colour-coded links embedded in the e-book
Sixth Class	112 pages	40 pages	128 pages	48 pages	✓	Colour-coded links embedded in the e-book

Key Features of *Small World SESE*

- Fully integrated SESE programme
- Digital resources embedded in the teacher's e-book – at your fingertips, so no need to search for resources elsewhere
- Interactive e-books mean 'cross pollination' of Geography/Science and History
- Enticing and refreshing pupil books that will engage the pupils and encourage further learning
- History, Geography and Science interlinked through 'Hot History', 'Hot Science' and 'Hot Geography' sections
- Practical Teacher's Manual with fortnightly plans, yearly schemes, integrated themes, pragmatic extension notes for each unit, answers, differentiation options, photocopiable templates, etc.

- Pupil Activity Book (activities on timelines, new vocabulary, templates for recording of investigations and surveys)
- Spiral approach used sparingly, e.g. the Great Famine might be taught in Third Class and also in Fifth Class, but you won't see the Romans being covered every year

Small World History Textbook – Key Features

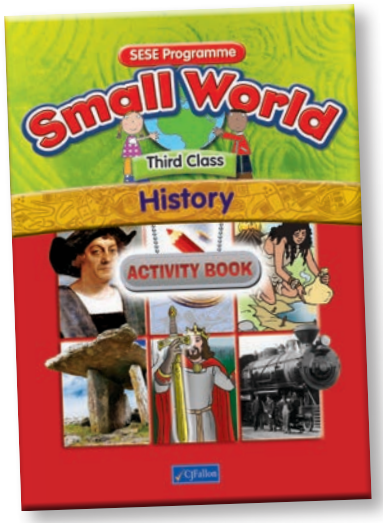
- Two-year approach (Third and Fourth Class), e.g. Stone Age people are studied in Third Class and Early Christian Ireland is studied in Fourth Class; menu options are supplied for both classes
- Possibility of covering the topics in chronological format if required
- Reading the Textbook – expansion of **Literacy skills** including skimming and scanning
- Technology being directly associated and linked to the textbook through embedding of resources and website references
- The Textbook is part of a 'triumvirate' – there is a Geography & Science Textbook. The three subjects interlink through the 'Hot' sections in each book ('Hot History', 'Hot Geography', 'Hot Science')
- Timelines: These are relevant to the topic. An item on the timeline can be a period of time, e.g. (era of) the Romans, the Egyptians. The purpose of the timeline is for pupils to see what was happening concurrently in Ireland and another part of the world, e.g. while the Celts were in Ireland, the Romans were building an empire in Europe. This means that pupils won't end up wondering, e.g. if the Stone Age was going on in Ireland while the Roman Empire was rising in Italy
- Glossary at the back of the Textbook, providing definitions of selected new words introduced at the beginning of each unit: These words can be used in a pre-reading activity
- Strands and strand units are listed at the bottom of each unit
- Short, engaging units with plenty of interesting facts and information laid out in a child-friendly, enticing way
- Intermittent questions appear approximately halfway through many units. They serve to recap and revise information. They can also be used as group activities, if some groups need the teacher's attention. The types of activity include: writing a summary (key dates are given), debating a topic and writing points for the motion, writing a fact-file about X, drawing a diagram to illustrate a point, concept mapping/brainstorming, 'What if?' scenarios and outcomes

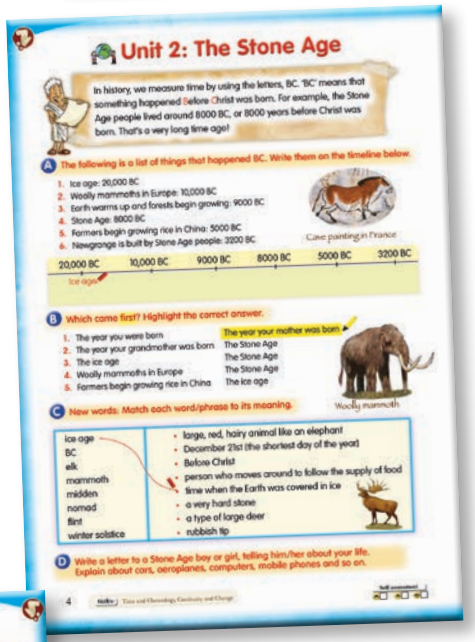
End-of-unit Activities

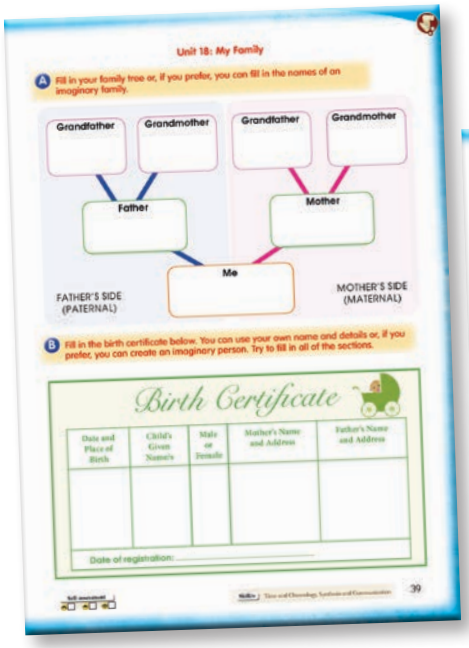
- **A. Can you Remember?** (revision) This section comprises about 7–10 'easy' questions. The children will write the answers in their History copies.
- **B. Choose the Correct Answer to Complete Each Sentence.** These activities can be based on the timeline and will assess if pupils understood and grasped the time period. They also test if pupils have understood the nuances in the information.
- **C. Think About It.** This section varies: 'If X had happened what would have been the outcome?' (cause and effect); 'Give reasons for X'; 'Explain in your own words'; 'Name two or three changes that came about because of X'; 'Choose the odd one out and say why'; 'Put in the correct sequence'; 'Give the definitions' or 'Explain this word'; BC and AD activities.
- **D. Get Creative.** This section covers role-play, music, discussion, artwork and drama, e.g. empathy (lives of other people). Activities include debates, art, reports, letters and interviews.
- **E. Digging Deeper** (working as an historian) This section includes suitable websites, historical novels to read, non-fiction books to research for information, project/pair work, local studies information, and films to watch.

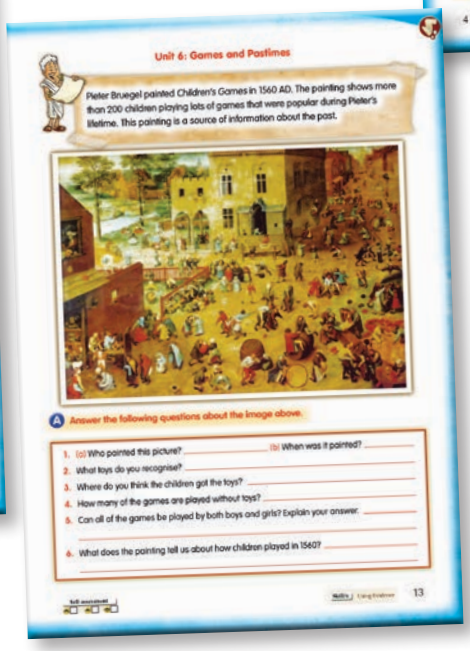
Small World History Activity Book – Key Features

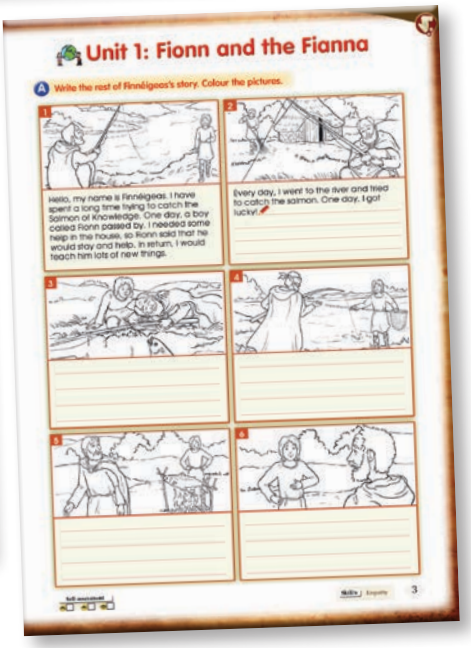
- Timeline activities
- Activities on new vocabulary – ensuring that children understand the new words
- Activities on 'What came before?' and 'What came after?' – sequencing activities providing an opportunity to assess if pupils have grasped that, e.g. the Romans came after the Stone Age
- Self-assessment for pupils
- One page or more for each unit of the Textbook
- Templates for local study and family trees
- History skills being used are listed at the bottom of each page, for example:
  - *Time and Chronology:* Using timelines; using words associated with time, etc.
  - *Change and Continuity:* Comparing photographs (evidence) from 'then' and 'now'
  - *Cause and Effect:* 'If this event never happened' or 'If this event/person had been different'
  - *Using Evidence:* Photos; documents
  - *Synthesis and Communication:* Conversation between two historical characters; drama; artwork, etc.
  - *Empathy:* Imagine the feelings and motives of people from the past











Small World Geography & Science Textbook – Key Features

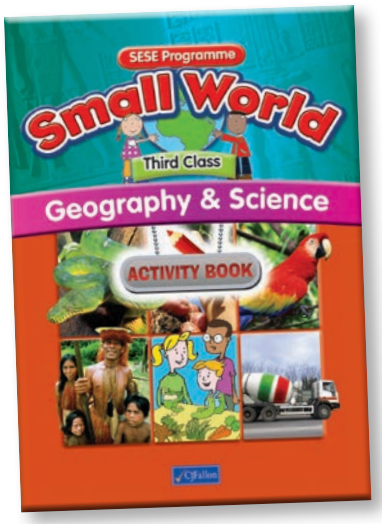
- Strands with extensive content are covered over a two-year period. Strands with less content are covered either in Third or Fourth Class
- Reading the Textbook – expansion of **Literacy skills** including skimming and scanning
- Technology directly associated with and linked to the book (through embedding of resources and website references)
- The Science & Geography book is part of a 'triumvirate' – there is a History Textbook. The three subjects interlink through the 'Hot' sections in each book ('Hot History', 'Hot Geography', 'Hot Science'). The 'Hot' sections contain quirky, fascinating, interesting facts, but also forge links within SESE, e.g. linking the topic of forces in Science to how the pyramids were built in Ancient Egypt
- Strands and strand units are listed at the bottom of each unit. The two subjects are colour-coded. Integration of Science and Geography is clearly shown.
- Short, engaging units with plenty of interesting facts and information laid out in a child-friendly, enticing way
- Eight double-page spreads (left- and right-hand pages) in the Textbook, e.g. in Third Class:

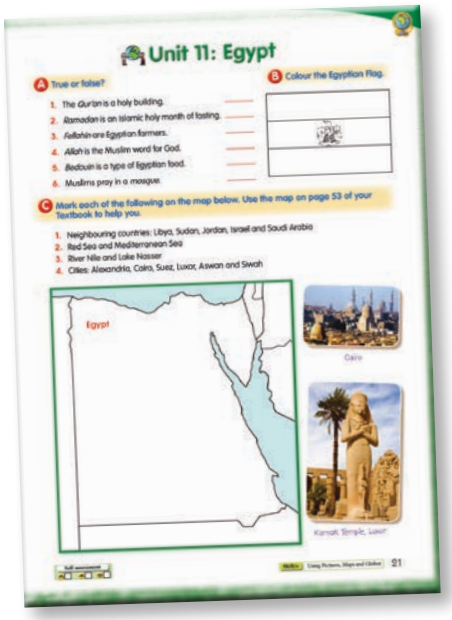
  1. Birds of Ireland; 2. Fruit and Vegetables; 3. Political & Physical Maps of Ireland;
  4. Aerial Photograph & Map of Ballysadare, County Sligo; 5. Map of Britain & Map of Egypt;
  6. Political Map of the World; 7. Physical Map of the World; 8. The Solar System

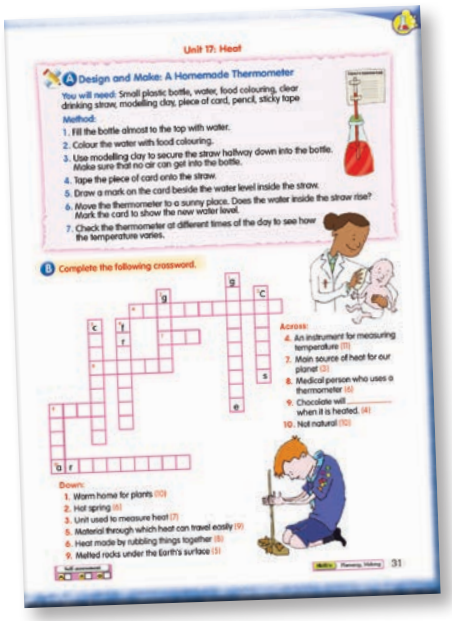
- Glossary at the back of the Textbook, providing definitions of selected new words introduced at the beginning of each unit. These words can be used in a pre-reading activity
- Design and Make activities
- Investigations (templates/record sheets in the Pupil Activity Book)
- Intermittent questions appear approximately half-way through many units. They serve to recap and revise information. They can also be used as group activities. The types of activity include: drawing a map/mapping a route, writing a fact-file about X, drawing a diagram to illustrate a point, concept mapping/brainstorming, 'What if?' scenarios and outcomes
- Range of activities on the last page of each unit, for example:
  - Telling the 'story', e.g. the story of a seed (Science), a diary entry for a mole (Geography)
  - Drawing a picture sequence for a short 'story'
  - Writing questions for answers provided
  - Writing a summary using key words or sentences
  - Finding the mistakes
  - Cloze test
  - Simple comprehension-type questions
  - Drawing a map, diagram or graph for the information
  - Composing a fact-file
  - Reading a graph or diagram
  - 'Think about it' – higher order questions/debate
  - Integration opportunities, e.g. Visual Arts, PE, Drama, Irish, Literacy
  - Digging Deeper activities supply websites (the e-book contains even more)
  - Clue-based questions or riddles
  - Drawing flags

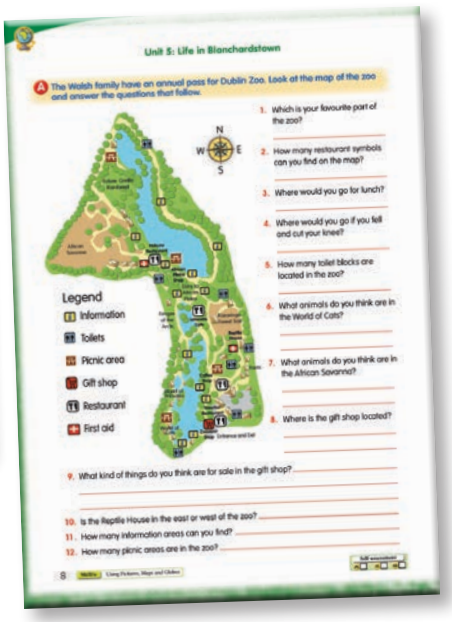
Small World Geography & Science Activity Book – Key Features

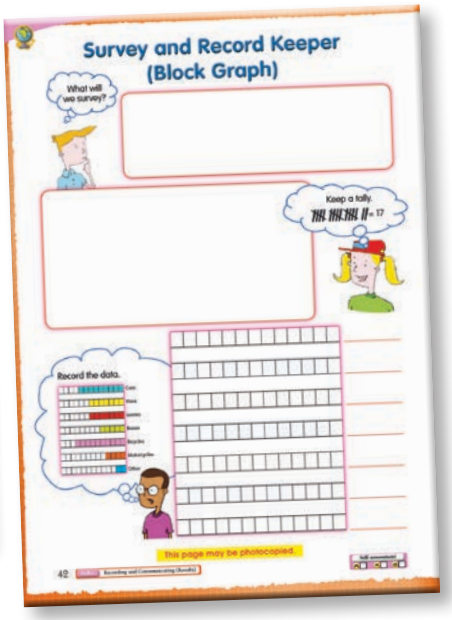
- Blank maps
- Investigation record sheets
- Design and Make planning sheets
- Mapping skills
- Activities on new vocabulary – ensuring that children understand the new words
- Self-assessment for pupils
- One page or more for each unit of the Textbook
- Templates for local study
- Geography/Science skills being used are listed at the bottom of each page, for example:
  - Observing
  - Predicting
  - Analysing
  - Investigating and Experimenting
  - Planning and Making
  - Recording and Communicating
  - Using Pictures, Maps and Globes
  - Sense of Place and Space
  - Sorting and Classifying











NCTE Form

Content Filtering Level Form (CFL form)

To request a particular content filtering level for your school please fill in the below form remembering to include your School Roll Number.

School Roll Number :-

School Name :	
Content Filtering Levels	***Tick One Box***
Level 1: This level is the same as Level 2 but **blocks** websites belonging to the **Internet Communications** category.	☐ Yes Level 1
Level 2: This level is the same as Level 3 but **blocks** websites belonging to the **Games** and **Personal Storage** category**.**	☐ Yes Level 2
Level 3 This level is currently used by the vast majority of schools. It gives access to millions of websites including games but **blocks** '**YouTube**' and websites that are categorized as **Personal** such as blogs and **Social Networking** such as Flickr and Facebook.	☐ Yes Level 3
Level 4 This level allows access to the same websites as Level 3, but also allows access to '**YouTube**'.	☐ Yes Level 4
Level 5 This level allows access to the same websites as Level 4, but also allows access to websites that are categorized as **Personal** such as blogs.	☐ Yes Level 5
Level 6 This level allows access to the same websites as Level 5, but also allows access to websites that are categorized as **Social Networking** such as Facebook.	☐ Yes Level 6

Table 1: *Level 1 is the most restricted level while level 6 allows the widest level of access.* ***All Filtering Levels are designed to block content of an illegal or pornographic content.***

As Principal I confirm the following on behalf of the school:

1. The school wishes to request a change to content filtering as per Table 1 (above).
2. The school has an appropriate AUP in use regarding content filtering level
3. School Authorities will inform staff and students that Internet and email use will be monitored and that inappropriate use of the service may result in sanction by the school.
4. The school accepts that it has obligations in relation to the provision of the service, in terms of non-abuse of the service, and confirms that it has an Acceptable Use Policy (AUP) in operation in the school and that it complies with the NCTE guidelines on School Internet AUP, at www.ncte.ie/InternetSafety and specifically with reference to supervision of online access.
5. The School understands and accepts the risks associated with using schools broadband at all levels of filtering and accepts that there are increased levels of risk associated with levels 4 to level 6.
6. The School understands and accepts that where a school is engaging in inappropriate online behaviour the Broadband Schools team reserve the right to take whatever actions are required to protect the network and other schools. This may require disconnecting the 'offending school' until the situation is resolved satisfactorily.
7. If a user accesses material which is considered inappropriate for schools, this should be reported to an appropriate staff member or school Principal, as per schools AUP, who are then recommended to report the matter to the NCTE Service Desk.

Signed by: _____ **Roll No:** _____
(Principal)
Principal's Name ***(in capitals)***: _____ **Date:** _____

Please return this signed form to:
AUP/CF forms, NCTE Service Desk, P.O. Box 10101, Dublin 17
Or **fax** to **01- 8473370**

Aims of the History, Geography and Science Curricula

Vision and Aims

(a) Vision

Relate the plan to the school's characteristic spirit (ethos), e.g. *We seek to assist the children in achieving…*

(b) Aims

State what the school ideally hopes to achieve by introducing the plan.

Aims of the History Curriculum

We endorse the aims of the Primary School Curriculum for History and aim to ensure that History is taught in tandem with the aims of the Curriculum (History Curriculum page 12):

- To develop an interest in, and curiosity about, the past
- To make the child aware of the lives of women, men and children in the past and how people and events have had an impact upon each other
- To develop an understanding of the concepts of change and continuity
- To provide for the acquisition of concepts and skills associated with sequence, time and chronology, appropriate to the development stages of the child
- To allow the child to encounter and use a range of historical evidence systematically and critically
- To provide opportunities for the child to communicate historical findings and interpretations in a variety of ways
- To foster sensitivity to the impact of conservation and change within local and wider environments
- To help the child recognise and examine the influences of the past on the attitudes and behaviour of people today
- To foster a willingness to explore personal attitudes and values and to promote an openness to the possibility of changing one's own point of view
- To encourage the child to recognise how past and present actions, events and materials may become historically significant
- To enable the child to acquire a balanced appreciation of cultural and historical inheritances from local, national and global contexts

Are there additional aims that relate to the context of your individual school?

Aims of the Geography Curriculum

We endorse the aims of the Primary School Geography Curriculum and aim to ensure that Geography is taught in tandem with the aims of the Curriculum (Geography Curriculum page 14):

- To develop knowledge and understanding of local, regional and wider environments and their interrelationships
- To encourage an understanding and appreciation of the variety of natural and human conditions on the Earth
- To develop empathy with people from diverse environments and an understanding of human interdependence

- To develop the ability to use a range of communicative methods, especially those concerned with the development of graphicacy (mapping and other non-verbal, non-numerical forms of data presentation)
- To encourage the development of a sense of place and spatial awareness
- To encourage the development of caring attitudes and responsible behaviour towards the environment, and involvement in the identification, discussion, resolution and avoidance of environmental problems
- To develop an understanding of appropriate geographical concepts

Are there additional aims that relate to the context of your individual school?

Aims of the Science Curriculum

We endorse the aims of the Science Curriculum and aim to ensure that Science is taught in tandem with the aims of the Primary School Curriculum for Science (Science Curriculum page 11):

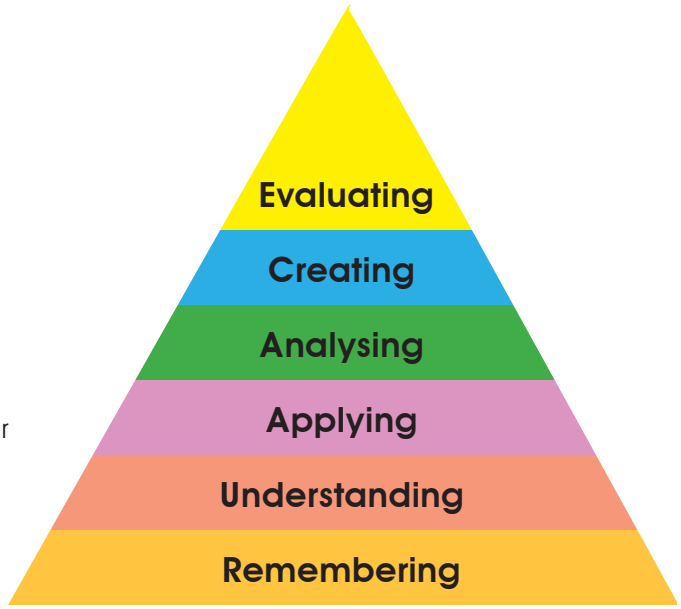
- To develop knowledge and understanding of scientific and technological concepts through the exploration of human, natural and physical aspects of the environment
- To develop a scientific approach to problem-solving which emphasises understanding and constructive thinking
- To encourage the child to explore, develop and apply scientific ideas and concepts through designing and making activities
- To foster the child's natural curiosity, so encouraging independent enquiry and creative action
- To help the child to appreciate the contribution of science and technology to the social, economic, cultural and other dimensions of society
- To cultivate an appreciation and respect for the diversity of living and non-living things, their interdependence and interactions
- To encourage the child to behave responsibly to protect, improve and cherish the environment and to become involved in the identification, discussion, resolution and avoidance of environmental problems and so promote sustainable development
- To enable the child to communicate ideas, present work and report findings using a variety of media

Are there additional aims that relate to the context of your individual school?

Assessment Guidelines

Bloom's Taxonomy

Teacher observation is a very valid and important type of assessment. However, it is important for teachers to vary question types and their expectations of pupils. Bloom's Taxonomy provides a good guide for teachers by making them more aware of what they are asking. Ideally, teachers should vary their technique rather than focusing on one particular type of questioning. Otherwise there may be an overreliance on recall and knowledge at times. Questioning is both a *teaching methodology* and a *form of assessment.*



Examples for Each Stage of Bloom's Taxonomy

(Taken from NCCA Assessment Guidelines, 2007)

Knowledge

Question cues		Sample questions
Tell	List	What happened after...? How many...? Who was it that...? Can you name the...? Describe what happened at... Who spoke to...? Can you tell why...? Find the meaning of... What is...? Which is true or false...?
Define	Name	
When	Where	
Identify	Show	
State	Locate	
Relate	Who	

Understanding

Question cues		Sample questions
Retell	Summarise	Can you write in your own words...? Can you write a brief outline...? What do you think could have happened next...? Who do you think...? What was the main idea...? Who was the key character...? Can you distinguish between...? What differences exist between...? Can you provide an example of what you mean...? Can you provide a definition for...?
Describe	Explain	
Discuss	Interpret	
Outline	Predict	
Restate	Compare	
Estimate	Contrast	

Application

Question cues		Sample questions
Solve	Show	Do you know another instance where…? Could this have happened in…? Can you group by characteristics such as…? What factors would you change if…? Can you apply the method used to some experience of your own…? What questions would you ask of…? From the information given, can you develop a set of instructions about…? Would this information be useful if you had a…?
Use	Illustrate	
Construct	Complete	
Examine	Classify	
Apply	Demonstrate	
Calculate	Modify	

Analysis

Question cues		Sample questions
Analyse	Distinguish	Which events could have happened…? If… happened, what might the ending have been? How was this similar to…? What was the underlying theme of…? What do you see as other possible outcomes…? Why did… changes occur? Can you compare your… with that presented in…? How is… similar to…? What was the problem with…? What evidence can you list for…?
Compare	Contrast	
Investigate	Categorise	
Identify	Separate	
Order	Explain	
Connect	Infer	

Synthesis

Question cues		Sample questions
Create	Invent	Can you design a… to…? Why not compose a song about…? Can you see a possible solution to…? If you had access to all resources, how would you deal with…? Why don't you devise your own way to deal with…? What would happen if…? How many ways can you…? Can you create new and unusual uses for…? Can you develop a proposal which would…?
Compose	Predict	
Plan	Construct	
Design	Imagine	
Propose	Devise	
Formulate	Combine	

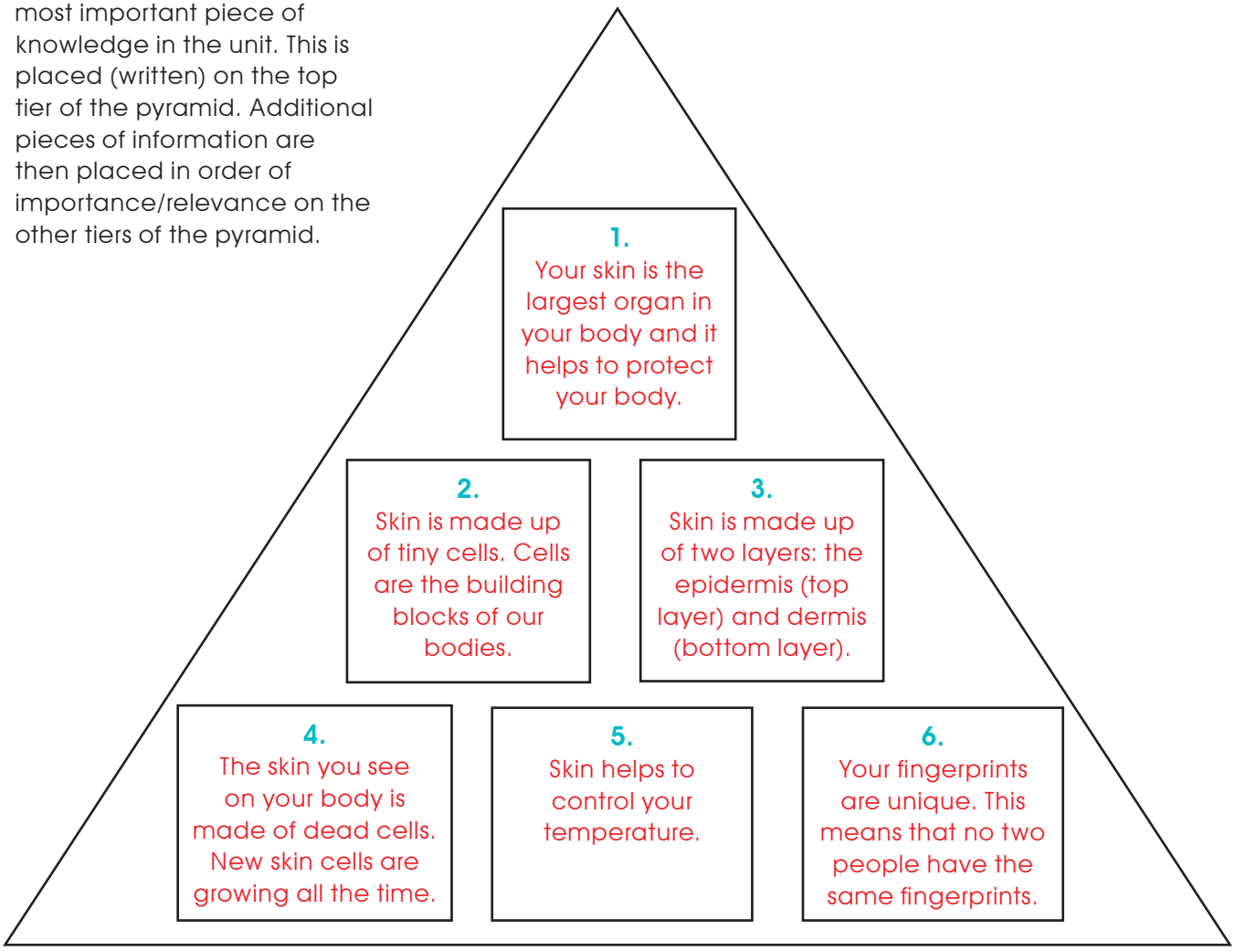
Evaluation

Question cues		Sample questions
Judge	Select	Is there a better solution to…? Judge the value of… Can you defend your position about…? Do you think… is a good or a bad thing? How would you have handled…? What changes to… would you recommend? What would you predict/infer from…? How effective are…? What do you think about…? How would you create/design a new…?
Choose	Decide	
Justify	Debate	
Verify	Argue	
Recommend	Assess	
Rate	Prioritise	

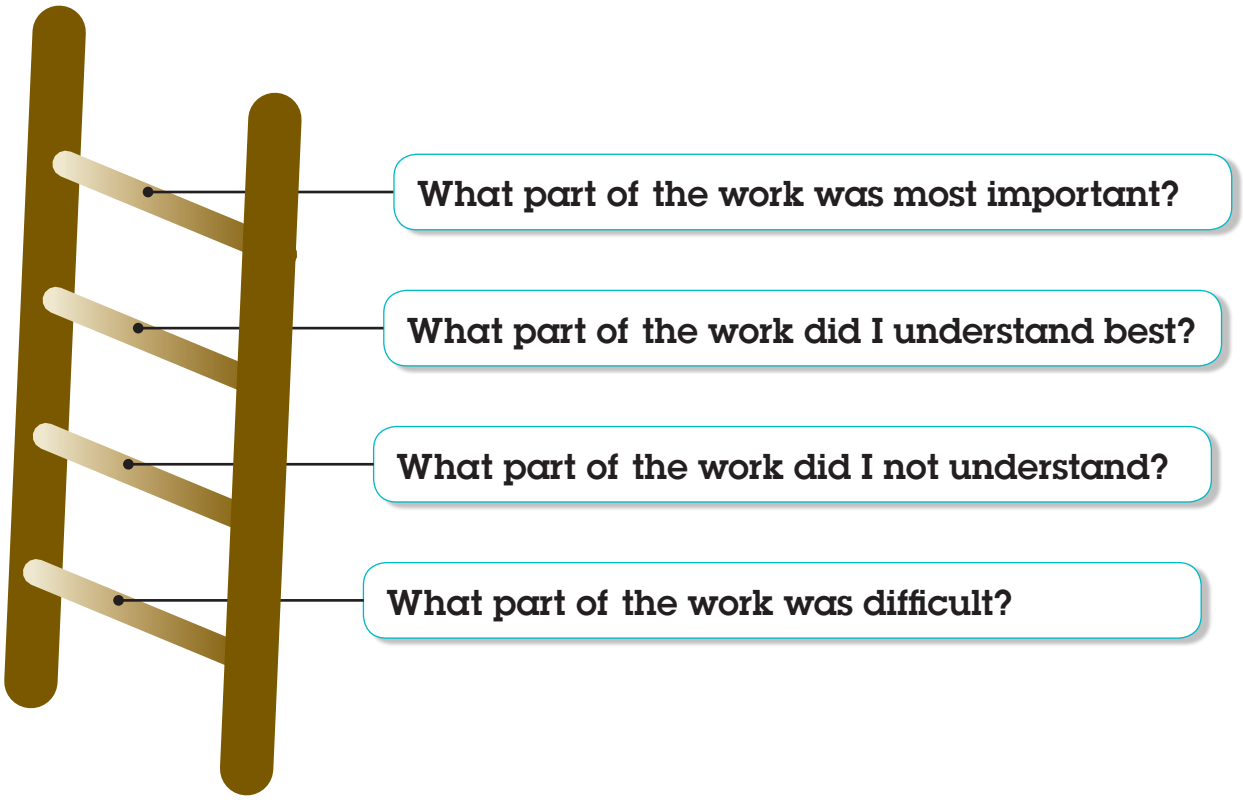
The following are examples of assessment strategies.

Pyramid Ranking

After they have studied a topic, e.g. the skin, pupils will decide on the most important piece of knowledge in the unit. This is placed (written) on the top tier of the pyramid. Additional pieces of information are then placed in order of importance/relevance on the other tiers of the pyramid.



Ladder Ranking



KWL Chart

What I know	What I want to find out	What I have learned

Rubric

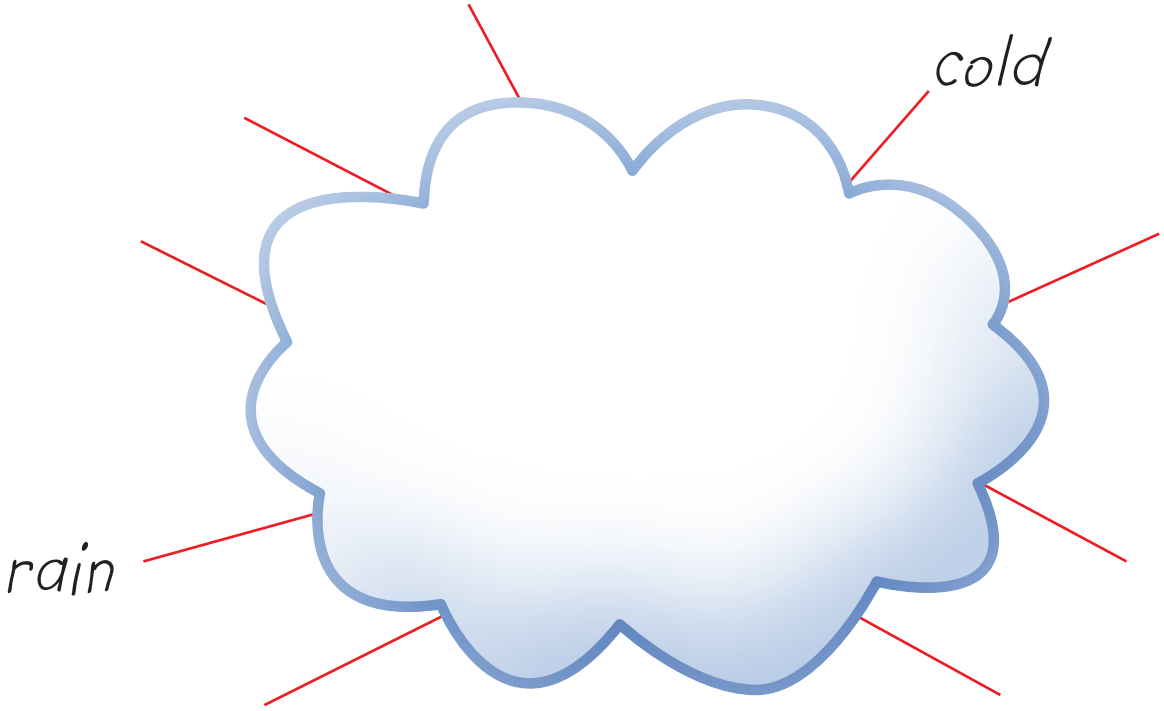
What I think about my			
	1	2	3
Plan			
Design			
Materials			
Appearance			

Example:

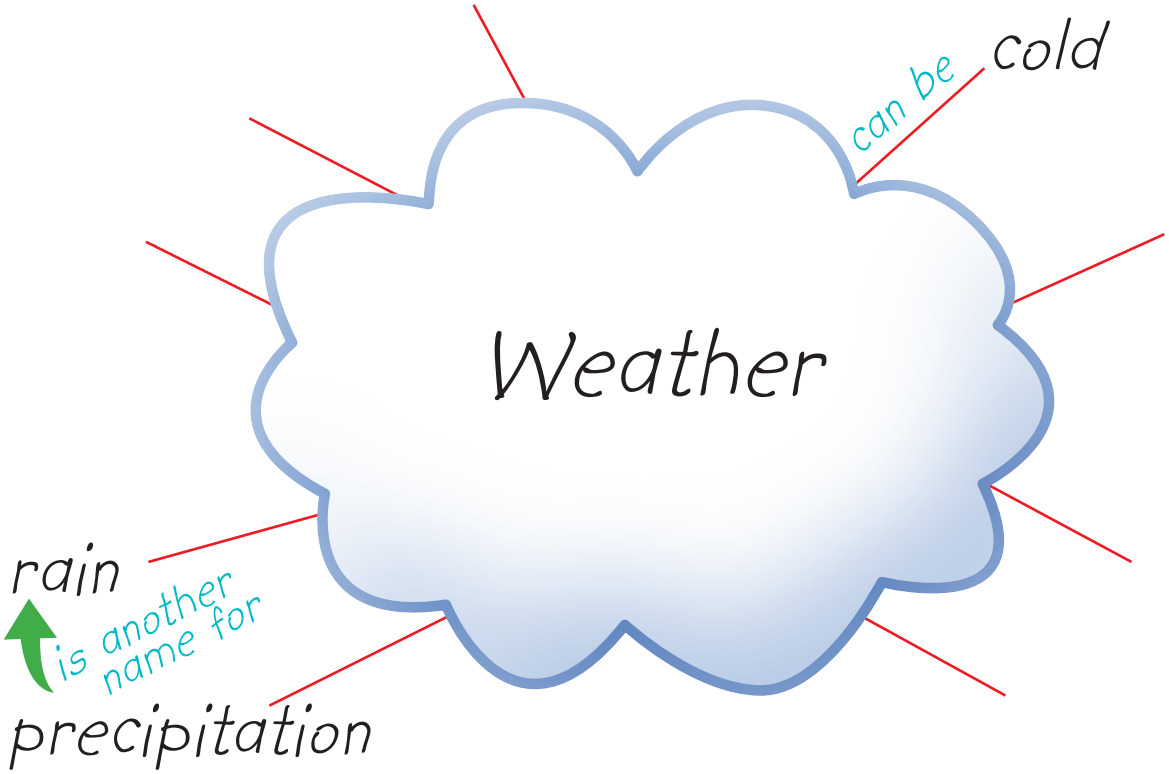
What I think about my	*stethoscope*		
	1	2	3
Plan	*I made out a plan for my stethoscope.* ✓	*I made out a plan for my stethoscope with a few details.*	*I made out a plan for my stethoscope with a lot of details.*
Design	*I didn't show the important parts of my design.*	*I showed some of the important parts of my design.* ✓	*I showed a lot of the important parts of my design.*
Materials	*The materials that I used were not suitable.*	*Some of the materials that I used were suitable.*	*A lot of the materials that I used were suitable.* ✓
Appearance	*My stethoscope looks okay.*	*My stethoscope looks good.* ✓	*My stethoscope looks great.*

Concept Map

Example of initial concept map:



Example of completed concept map at end of unit of work:



PMI Chart

As a self-assessment strategy, a PMI chart is similar to 'two stars and a wish', i.e. one thing that I liked (+), one thing that I could improve (–) and one thing that interested me (I).

You can also use a PMI chart to evaluate an issue or topic, as follows: 'P' stands for 'plus' or 'good facts'. 'M' stands for 'minus' or 'bad facts'. 'I' stands for 'Interesting facts' or 'implications'. Example: Choose a topic such as 'Should we place our seed tray on the classroom window sill?'

- Plus – lots of light, children can see progress…
- Minus – can get very cold at night – frostbite; windowsill is over the radiator – compost might dry out…
- Implications – Might it topple out if the window is opened? Remember to 'farm out' during Easter holidays, or the plants will die…

SESE Planning

Why Do SESE?

- Education of the whole child – enrichment
- Taking his/her place as a full member of society
- Practical, hands-on
- Skill development – modern work practices
- Success for less-able pupils
- Potential for better-able pupils
- Enjoyment, stimulation, interest
- Adds variety to the classroom
- Individual subjects in secondary school

Difficulties

- Time
- Curriculum overload
- Change overload
- Not a priority
- Not tested formally
- Lack of knowledge
- Lack of resources
- Too much preparation needed
- Class organisation a chore

What Must Be Done?

Science

– Something from each strand each year
– Split strand units over two years
– Select from objectives as a menu, not all have to be done

History

– All strands, strand units, objectives every year
– Third–Sixth Class: Choose from menu of topics
– Two in-depth studies each year – one local, one national/international

Geography

– **Strand:** Human Environments, **Strand Units:** People Living and Working in the Local Area, and People Living and Working in a Contrasting Part of Ireland – Select sub-units from these strand units.
– Local man-made environment: select from sub-units, cover all in two-year period
– Fifth/Sixth Class: Select one trade, development or famine issue
– Objectives – menu, not all have to be done

Time Allocation

- SESE short day – 2¼ hours per week
- SESE long day – 3 hours per week

Can block off periods of time when doing project, integrated work, in-depth study, etc.

Can use some discretionary time (2 hours) if the lesson targets literacy or numeracy

Skills

Working as a scientist	Working as an historian	Working as a geographer
▪ Investigation skills ▪ Design and Make	▪ Time and chronology ▪ Change and continuity (not for Infants) ▪ Cause and effect (not for infants) ▪ Synthesis and communication ▪ Using evidence ▪ Empathy (not for infants)	▪ Sense of place and space ▪ Maps, globes and graphical skills ▪ Investigation skills

How Are We Going to Do This?

- Using a variety of approaches and methodologies
- Letting pupils explore and discover for themselves
- Active learning
- Problem-solving tasks – open questions, pupils asking questions
- Facilitating talk and discussion
- Working from children's own ideas
- Variety of classroom structures: whole room, whole class, groups, pairs, individuals
- Using and exploring the local environment
- Integration
- Differentiation

Approaches and Methodologies

Science	History	Geography
▪ Open questions and initiating investigations ▪ Children's ideas as starting point ▪ Talk and discussion ▪ Brainstorm and concept mapping ▪ Concept cartoons ▪ Free play and discovery learning ▪ Annotated drawing ▪ Group or pair work ▪ Design and Make	▪ Story ▪ Use of historical novel ▪ Personal and family history (using evidence) ▪ Oral evidence ▪ Using artefacts ▪ Pictures and photographs ▪ Using the environment ▪ Documentary evidence ▪ Drama and role-play ▪ Using ICT ▪ Project work ▪ Use of maps ▪ Use of timelines	▪ Fieldwork ▪ Observation ▪ Annotated drawings, sketches ▪ Using photographs ▪ Surveys ▪ Interviews ▪ Stories ▪ Use of news/topical affairs ▪ Experiments and investigations ▪ Using simulations and models ▪ Keeping a wildlife garden ▪ Project work ▪ Video/DVD ▪ Maps and mapping ▪ ICT ▪ Artefacts

Vary the Recording Technique

Choose from:

- Annotated drawing
- Concept map
- Photographs
- Data tables
- Graphs
- Investigation planning sheet
- Concept cartoons
- Scrapbook
- Class poster
- Written reports
- Work portfolios
- Design and Make
- ICT
- Comprehension exercises
- Story/poetry
- Art/drama/music

What to Keep in Your Teacher's Notes

- Yearly plan/template – what strands and strand units I will cover
- Short-term planning – what objectives/skills I will cover and methods I will use
- Notes on resources, assessment, integration, differentiation, language

Assessment

- What did the children know before I started?
- What have they learned in terms of:
  - Knowledge?
  - Understanding?
  - Skills?
  - Attitudes?
- How will I assess? Choose from:
  - Teacher observation
  - Teacher-designed test and task
  - Brainstorm/concept map, pyramid ranking, ladder ranking, KWL chart, rubric, PMI chart
  - Work samples, drawings, portfolios
  - Pupil/parental feedback
  - Quizzes

Differentiation

- Find out what pupils know before you start
- Vary content, pace
- Ask a variety of questions
- Offer a variety of teaching styles
- Offer a variety of recording techniques
- Be conscious of the 'literacy barrier'
- Vary class organisation
- Consider groups carefully
- SNA/resource-teacher support
- Peer support/tutoring

Getting Started – Baselines for Each Subject

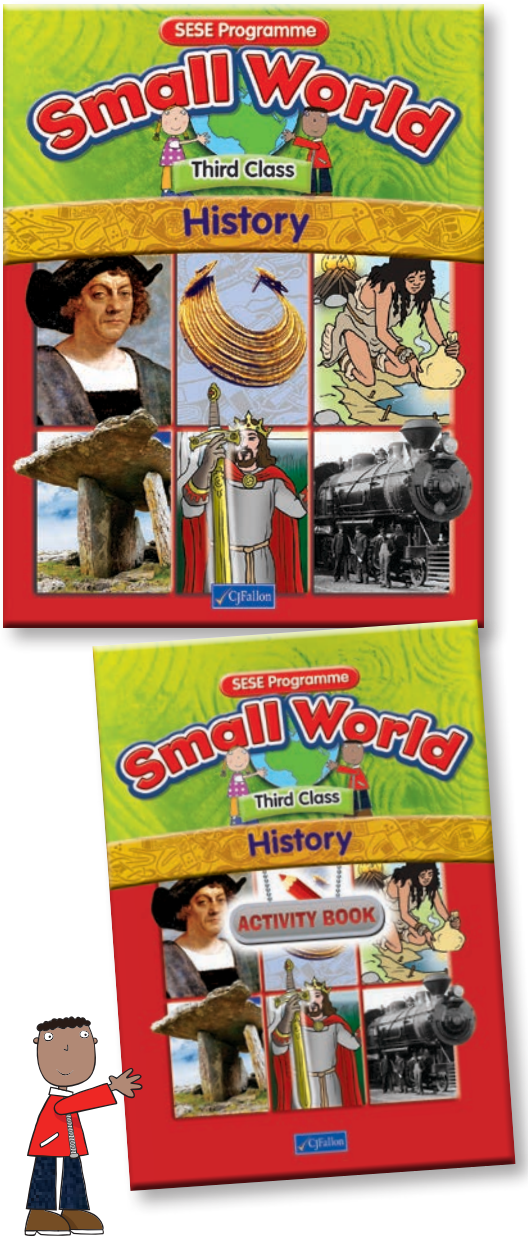
Science	History	Geography
▪ Hands-on investigations, use of equipment – at least one per topic ▪ Habitat studies – one or two per year ▪ Design and Make – one per term ▪ Children's ideas – before and after each topic ▪ Consider a whole-school approach to energy and forces strand units. ▪ Try a few exemplars.	▪ Timeline(s) in each class ▪ One history trail in each class ▪ Artefact day/school museum ▪ Try 'archaeology in the classroom' lessons. A resource pack called *It's About Time* was sent to schools by Limerick Education Centre (tel: 061 585060, email: info@lec.ie). You can download all 12 modules of the resource pack, which is also available on request from your local Education Centre. ▪ Try a few exemplars	▪ Maps and globes in every class – selection in a box/folder ▪ From First up, mark cardinal points in each classroom or on the yard ▪ Weather recording in every class ▪ Divide out the local man-made environment work ▪ Local trail ▪ Do a survey ▪ Try a few exemplars

Integrated SESE Projects

- Select two for each class
- Look at exemplars in Teacher Guidelines
- Plan using concept map and objectives

Teacher's Notes

History



History – Suggested Yearly Scheme at a Glance

Month	Unit	Strand, Strand Unit	Content Objectives The child should be enabled to:	Skills – The student will work as an historian in using the following skills:
September	**Unit 1:** Fionn and the Fianna	Story, Myths and Legends	▪ Learn about the events of the story of Fionn. ▪ Become familiar with the way people lived and got food. ▪ Become familiar with significant dates/events in the life of the Fianna, e.g. Samhain. ▪ Use a range of simple historical evidence, e.g. tests for joining the Fianna. ▪ Record main events of the story on a timeline. ▪ Examine continuity and change over time since the time of the story.	▪ Identify, discuss and retell in sequence the main events of the story. ▪ Recognise that people lived in a very different way than they do today. ▪ Use evidence of various kinds, e.g. oral, pictorial and documentary to add to knowledge of the topic. ▪ Look at the information in the unit from the point of view of the main characters in the story. ▪ Use evidence and imagination to reconstruct events from the past, e.g. how people travelled, dressed and ate. ▪ Explore the text to understand those elements of life during the time of the story that have changed and those that remain the same.
October	**Unit 2:** The Stone Age	Early People and Ancient Societies, Stone Age Peoples	▪ Become familiar with aspects of the lives of Stone Age people, e.g. arrival, settlement and life in Ireland, food, work, weapons, burial practices, faith and beliefs. ▪ Record the place of Stone Age people on timelines. ▪ Become familiar with evidence of Stone Age people in the locality, e.g. ancient settlements (rath and dún) and ancient burial sites. ▪ Explore the idea of the daily fight for survival in terms of the search for food. ▪ Compare the building practices of Stone Age people in relation to the development of the built environment in recent times.	▪ Record information about Stone Age people using a timeline, and understand and use date conventions, e.g. BC. ▪ Discuss the reasons for hunter-gatherers becoming farmers and the effect this had on their way of life. ▪ Look at the information in the unit from the points of view of the work done by Stone Age men, women and children ▪ Use evidence and imagination to reconstruct events, e.g. preparing to hunt the elk. ▪ Explore the text to understand those elements of life in Stone Age times that have changed and those that remain the same.

November	**Unit 3:** Food and Farming	Continuity and Change Over Time, Food and Farming	▪ Study aspects of social, technological and scientific developments over long periods of time. ▪ Identify items of change and continuity in the 'line of development'. ▪ Identify some of the factors that have caused or prevented change. ▪ Become familiar with important events in the history of the locality including those associated with the Great Famine and changes that may have occurred in farming practices. ▪ Collect related local ballads, stories and traditions. ▪ Refer to and use appropriate timelines.	▪ Distinguish between food-growing practices in the past and in the present. ▪ Record information about developments in food production using a timeline, and understand and use date conventions, e.g. BC. ▪ Discuss the reasons why potato blight was such a problem in the past. ▪ Look at the information in the unit from the point of view of the lack of variety in food eaten by people during the Middle Ages in comparison to the vast choice available today. ▪ Use evidence and imagination to reconstruct events from the past, e.g. the traditional way of making black pudding from pigs' blood.
December	**Unit 4:** People of the Tigris and Euphrates Rivers	Early People and Ancient Societies, Early Societies of the Tigris and Euphrates Valleys	▪ Become familiar with aspects of the lives of the people in the Tigris and Euphrates Valleys, e.g. settlement, food, work, weapons, burial practices, faith and beliefs. ▪ Become familiar with evidence of the people of the Tigris and Euphrates Valleys. ▪ Compare their building practices in relation to the development of the built environment in recent times. ▪ Record the place of the people of the Tigris and Euphrates on appropriate timelines.	▪ Record information about the people of the Tigris and Euphrates Valleys using a timeline, and understand and use date conventions, e.g. BC. ▪ Discuss the impact the discovery of metal had on their way of life. ▪ Look at the information in the unit from the points of view of the work done by men, women and children. ▪ Use evidence and imagination to reconstruct events from the past, e.g. building a great city. ▪ Explore the text to understand those elements of life that have changed and those that remain the same.
January	**Unit 5:** Setanta	Story, Myths and Legends	▪ Learn about the events of the story of Setanta. ▪ Become familiar with the way the people lived and celebrated. ▪ Become familiar with significant dates/events in the life of King Conor, e.g. the party at Eamhain Mhaca. ▪ Use a range of simple historical evidence, e.g. the strength of Setanta. ▪ Examine continuity and change over time since the time of the story.	▪ Identify, discuss and retell in sequence the main events of the story. ▪ Recognise that people lived in a very different way than they do today. ▪ Use evidence of various kinds, e.g. oral, pictorial and documentary to add to knowledge of the topic. ▪ Look at the information in the unit from the points of the main characters in the story. ▪ Use evidence and imagination to reconstruct events from the past, e.g. how people travelled, dressed and ate.

February	**Unit 6:** Games and Pastimes	Local Studies, Games and Pastimes in the Past	▪ Become familiar with some games and pastimes enjoyed in the locality. ▪ Explore and discuss games and pastimes enjoyed by parents and grandparents in the past. ▪ Gain some knowledge of games and pastimes enjoyed by children in ancient societies and in other lands. ▪ Identify how some games and pastimes, while they may have changed over time, still remain to this day. ▪ Identify some factors that have caused or prevented change. ▪ Refer to appropriate timelines.	▪ Record information about the progression of sport from ancient times using a timeline, and understand and use date conventions, e.g. BC. ▪ Discuss the reasons for changes in the ways that people like to enjoy themselves, e.g. cruelty to animals was commonplace in medieval times but is less acceptable today. ▪ Look at the information in the unit in terms of children having less time for play in the first part of the twentieth century. ▪ Use evidence and imagination to reconstruct events from the past, e.g. making a go-cart – sourcing the materials and tools needed, making the cart.
March	**Unit 10:** The Wooden Horse of Troy	Story, Myths and Legends	▪ Learn about the events of the story of Troy. ▪ Become familiar with significant dates/events in Troy and Greece. ▪ Use a range of simple historical evidence, e.g. the legend of the wooden horse. ▪ Record main events of the story on a timeline. ▪ Examine continuity and change over time since the time of the story.	▪ Identify, discuss and retell in sequence the main events of the story. ▪ Identify that people lived in a very different way than they do today. ▪ Use evidence of various kinds, e.g. oral, pictorial and documentary to add to knowledge of the topic. ▪ Look at the information in the unit from the points of view of the main characters in the story. ▪ Use evidence and imagination to reconstruct events from the past, e.g. how people travelled, dressed and ate. ▪ Explore the text to understand those elements of life during the time of the story that have changed and those that remain the same.
April	**Unit 11:** Schools and Education	Continuity and Change over Time, Schools and Education	▪ Study aspects of social, artistic, technological and scientific developments from the time of the Ancient Greeks to the present day. ▪ Identify items of change and continuity in the line of development of schools and educational practices. ▪ Identify some of the factors that have caused or prevented change in the area of education.	▪ Place information about various events to do with schools and education from the time of the Ancient Greeks on a timeline, and understand and use date conventions, e.g. BC. ▪ Discuss the reasons for the changes that took place in schools over time and the effect this had on children's education. ▪ Look at the information in the unit in terms of the kind of schooling and educational practices experienced by children in former times.

			▪ Refer to and use appropriate timelines. ▪ Investigate the development of present buildings and the history of earlier school buildings. ▪ Attempt to reconstruct a school day in the past using a range of simple evidence, e.g. memories of former pupils, oral history, old textbooks and photographs. ▪ Compare school furniture and equipment and the appearance of the classroom from the past with those of today.	▪ Use evidence and imagination to reconstruct events from the past, e.g. using a scroll, and being denied education if you were a girl or poor. ▪ Use a number of sources to create a broader picture of the history of education such as documents – e.g. roll-books, old texts – photographs, objects, etc. ▪ Explore the text to understand those elements of schools and education that have changed over time and those that remain the same.
May	**Unit 12:** Arthur and Excalibur	Story, Myths and Legends	▪ Learn about the events of the story of King Arthur. ▪ Become familiar with the way the people lived and worked as soldiers. ▪ Become familiar with significant dates/events in the life of Arthur, e.g. finding the sword Excalibur. ▪ Record main events of the story on a timeline. ▪ Examine continuity and change over time since the time of the story.	▪ Identify, discuss and retell in sequence the main events of the story. ▪ Recognise that people lived in a very different way than they do today. ▪ Use evidence of various kinds, e.g. oral, pictorial and documentary to add to knowledge of the topic. ▪ Look at the information in the unit from the points of view of the main characters in the story. ▪ Use evidence and imagination to reconstruct events from the past, e.g. how people travelled. ▪ Explore the text to understand those elements of life during the time of the story that have changed and those that remain the same.
June	**Unit 13:** Life in Norman Ireland	Life, Society, Work and Culture in the Past, Life in Norman Ireland	▪ Become familiar with aspects of the lives of the Normans in Ireland, e.g. arrival and settlement, food, weapons, leisure and pastimes. ▪ Become familiar with evidence of the Normans that may be found locally. ▪ Record the place of the Normans on appropriate timelines. ▪ Compare the building practices of the Normans with the development of the built environment in recent times. ▪ Identify items of change and continuity in the line of development of areas such as clothes, food, and homes/houses. ▪ Explore the origin of some family names, e.g. Fitzgerald and O'Sullivan.	▪ Record information about the Normans using a timeline, and understand and use date conventions, e.g. AD. ▪ Use a number of sources to create a broader picture of the history of the Normans – such as documents, e.g. the *Bayeux Tapestry*, buildings, objects, etc. ▪ Discuss the manner in which the Normans adapted to living in Ireland and the effect this had on their way of life; look at the information in the unit in terms of the Norman invasion and the resulting effects on both the Normans and the indigenous population. ▪ Use evidence and imagination to reconstruct events from the past, e.g. building a motte-and-bailey. ▪ Explore the text to understand those elements of life during Norman times that have changed and those that remain the same.

The units listed below may be substituted for those units above that come under the same strand according to the guidelines of the Curriculum. Teachers may also like to add these units into their programme as additional literacy opportunities (integrated with History).			
Unit 7: The Bronze Age	Early People and Ancient Societies, Bronze Age People	▪ Become familiar with aspects of the lives of Bronze Age people, e.g. homes, food, farming and mining, trade and transport, burial practices, faith and beliefs. ▪ Become familiar with evidence of Bronze Age people that may be found locally. ▪ Record the place of Bronze Age people on appropriate timelines. ▪ Become familiar with important events in the history of the locality, e.g. ancient settlements and burial sites. ▪ Explore the links that Bronze Age people had with people outside Ireland. ▪ Compare the means of transport used by Bronze Age people with developments in this area down through the ages to recent times.	▪ Record information about Bronze Age people using a timeline, and understand and use date conventions, e.g. BC. ▪ Discuss the reasons for Bronze Age people becoming traders and craftsmen and the effect this had on their way of life. ▪ Look at the information in the unit in terms of the work done by Bronze Age men, women and children. ▪ Use evidence and imagination to reconstruct events from the past, e.g. your community travelling to a celebration at the standing stones. ▪ Explore the text to understand those elements of life in Bronze Age times that have changed and those that remain the same.
Unit 8: Saint Brendan	Story, Myths and Legends	▪ Learn about the events of the story of Brendan. ▪ Become familiar with significant dates/events in the life of Brendan e.g. voyage to discovery. ▪ Use a range of simple historical evidence. ▪ Record main events of the story on a timeline. ▪ Examine continuity and change over time since the time of the story.	▪ Identify, discuss and retell in sequence the main events of the story. ▪ Recognise that people lived in a very different way than they do today. ▪ Use evidence of various kinds, e.g. oral, pictorial and documentary to add to knowledge of the topic. ▪ Look at the information in the unit from the point of the main character in the story. ▪ Explore the text to understand those elements of life during the time of the story that have changed and those that remain the same.
Unit 9: The Egyptians	Early People and Ancient Societies, Egyptians	▪ Become familiar with aspects of the lives of the Egyptians, e.g. settlement and way of life, food, work, weapons, burial practices, faith and beliefs. ▪ Become familiar with evidence of Egyptian people that may be found today. ▪ Record the place of the Egyptian people on appropriate timelines ▪ Compare the building practices of Egyptian people in relation to the development of the built environment in recent times.	▪ Record information about Egyptian people using a timeline and understand and use date conventions, e.g. BC. ▪ Discuss the reasons for the people becoming farmers and the effect this had on their way of life. ▪ Look at the information in the unit in terms of the work done by Egyptian men, women and children. ▪ Use evidence and imagination to reconstruct events from the past, e.g. preparing for building a great monument. ▪ Explore the text to understand those elements of life in Egypt that have changed and those that remain the same.

Unit 14: Life in Medieval Towns	Life, Society, Work and Culture in the Past, Life in Medieval Towns and Countryside in Ireland and Europe	▪ Become familiar with aspects of the lives of people who lived in medieval times in Ireland and Europe, e.g. food, work, leisure and pastimes. ▪ Become familiar with evidence of the lives of people from medieval times that may be found locally. ▪ Record the place of people from medieval times on appropriate timelines. ▪ Compare the building practices of people in medieval times with the development of the built environment in recent times. ▪ Study aspects of technological and scientific developments, e.g. the printed word and development of trades, over a long period of time. ▪ Identify items of change and continuity in the line of developments to do with dealing with disease and health.	▪ Record information about medieval people using a timeline. ▪ Discuss the reasons for the spread of the plague and the effect this had on the way of life for people in the Middle Ages. ▪ Look at aspects of the lives of town dwellers, e.g. communications, public health and sanitation, and administration of justice. ▪ Use evidence and imagination to reconstruct events from the past, e.g. going to the fair or to see the 'miracle plays'. ▪ Explore the text to understand those elements of life in the Middle Ages that have changed and those that remain the same. ▪ Use a number of sources to create a broader picture of the history of life in the Middle Ages such as documents, photographs, objects, etc.
Unit 15: Christopher Columbus	Story, Stories from the Lives of People in the Past	▪ Learn about the events of the story of Columbus. ▪ Become familiar with the way people lived and worked as sailors. ▪ Become familiar with significant dates/events in the life of Columbus, e.g. voyage to America. ▪ Use a range of simple historical evidence, e.g. arriving in America. ▪ Record the main events of the story on a timeline. ▪ Examine continuity and change over time since the time of the story.	▪ Identify, discuss and retell in sequence the main events of the story. ▪ Recognise that people lived in a very different way than they do today. ▪ Use evidence of various kinds, e.g. oral, pictorial and documentary to add to knowledge of the topic. ▪ Look at the information in the unit from the point of view of the main character in the story. ▪ Explore the text to understand those elements of life during the time of the story that have changed and those that remain the same.

Unit 16: Transport	Continuity and Change over Time, Transport	▪ Become familiar with and study technological and scientific developments over time. ▪ Identify some of the factors that have caused or prevented change. ▪ Examine changes and examples of continuity in relation to issues of transport in their locality. ▪ Refer to and use appropriate timelines. ▪ Become familiar with important events in the history of the locality, e.g. currach racing, Galway Hooker Festival and Tall Ships Festival, and local monuments and/or events that mark transport innovation, e.g. canal/coach stop/railway/airport. ▪ Compare modes of transport used in the past with those used in modern times.	▪ Record information about developments in transport using a timeline; understand and use date conventions, e.g. BC and AD. ▪ Discuss the reasons for innovation in transport, e.g. wind and steam power, and the effects these developments had on modes of travel and transport. ▪ Look at the information in the unit in terms of difficulties in travel experienced by men, women and children in the past, e.g. leaving family and friends to travel on the *Jeannie Johnston* to a new land and life. ▪ Use evidence and imagination to reconstruct events from the past, e.g. Amy Johnson preparing for her solo flight to Australia. ▪ Explore the text to understand in what ways and why transport has changed from the time of the first dug-out canoes to the present day.
Unit 17: Tom Crean	Story, Stories from the Lives of People in the Past	▪ Become familiar with significant dates/events in the life of Tom Crean, e.g. landing on Elephant Island. ▪ Use a range of simple historical evidence, e.g. South Pole Exploration. ▪ Record the main events of the story on a timeline. ▪ Examine continuity and change over time since the time of the story.	▪ Identify, discuss and retell in sequence the main events of the story. ▪ Use evidence of various kinds, e.g. oral, pictorial and documentary to add to knowledge of the topic. ▪ Look at the information in the unit from the points of the main characters in the story. ▪ Use evidence and imagination to reconstruct events from the past, e.g. how people travelled and dressed.
Unit 18: My Family	Local Studies, My Family	▪ Become familiar with aspects of his/her own family history. ▪ Become familiar with evidence of family history through exploration of oral history, photographs and family memorabilia. ▪ Examine changes and examples of continuity in the lives of parents and grandparents. ▪ Record events particular to his/her own family on appropriate timelines. ▪ Present findings using a variety of media and appropriate timelines.	▪ Record information about one's family using a timeline, and understand and use date conventions, e.g. AD. ▪ Use evidence of various kinds, e.g. oral, pictorial and documentary to add to knowledge of the topic. ▪ Look at the information in the unit from the points of view of parents (and siblings) when a new baby is born. ▪ Use evidence and imagination to reconstruct events from the past, e.g. how grandparents travelled to school and games they played. ▪ Explore the text to understand those elements of life in the times of older generations that have changed and those that remain the same.

History – Fortnightly Plan at a Glance

Month	Unit	Textbook page	Activity Book page	Manual page
SEPTEMBER (1st and 2nd fortnight)	1: Fionn and the Fianna	4	3	34
OCTOBER (1st and 2nd fortnight)	2: The Stone Age	10	4	37
NOVEMBER (1st and 2nd fortnight)	3: Food and Farming	16	6	40
DECEMBER (1st and 2nd fortnight)	4: People of the Tigris and Euphrates Rivers	22	8	43
JANUARY (1st and 2nd fortnight)	5: Setanta	28	10	46
FEBRUARY (1st and 2nd fortnight)	6: Games and Pastimes	32	12	48
MARCH (1st and 2nd fortnight)	10: The Wooden Horse of Troy	50	22	59
APRIL (1st and 2nd fortnight)	11: Schools and Education	54	23	61
MAY (1st and 2nd fortnight)	12: King Arthur and Excalibur	60	25	64
JUNE (1st and 2nd fortnight)	13: Life in Norman Ireland	64	26	66

The units listed below may be substituted for those units above that come under the same strand according to the guidelines of the Curriculum. Teachers may also like to add these units into their programme as additional literacy opportunities (integrated with History).

Unit	Textbook page	Activity Book page	Manual page
7: The Bronze Age	36	15	51
8: Saint Brendan	42	18	54
9: The Egyptians	46	19	56
14: Life in Medieval Towns	70	29	69
15: Christopher Columbus	76	32	72
16: Transport	80	34	75
17: Tom Crean	86	36	79
18: My Family	92	38	82

Unit 1: Fionn and the Fianna

September (1st and 2nd Fortnight)

Strand: Story **Strand Unit:** Myths and Legends

Objectives

The child should be enabled to:

- Compare the lives of Fionn and the Fianna with his/her own life.
- Discuss the chronology of events in the story of the life of Fionn.
- Discuss the actions and feelings of people in the time of the Fianna.
- Explore the idea of being one of the Fianna.
- Relate the story of the life of Fionn as a young boy.

Ref: Textbook p. 4

New Words

knowledge wisdom motto blister Samhain banquet goblin hazel

Lesson Kernel

The threads of this unit are as follows:

- What life was like for the Irish thousands of years ago
- The lives of the people were closely related to the high king.
- Young boys trained to be warriors.
- Fish was a common form of food.
- The lives of children of wealthy families were different from the lives of children of ordinary families.

Skills

- **Time and chronology:** Placing the lives of Fionn and the Fianna on a timeline
- **Cause and effect:** Discussing the effect that the Salmon of Knowledge had on the life of Fionn
- **Empathy:** Looking at the story from the points of view of the various characters, e.g. Finnéigeas
- **Synthesis and communication:** Using evidence and imagination to recreate elements from the story of the Fianna, e.g. the lives of children
- **Continuity and change:** Discussing how life has changed since the time of the Fianna, what elements remain the same, and what contributions of the Fianna are evident in society today

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what the pupils already know about the power and influence of the Fianna.
- On a blank map of Ireland (photocopiable page 87), show the River Boyne and the Hill of Tara, and discuss the implications of their location.
- Use a photograph of the Hill of Tara as a starting point for a discussion. What might have happened there? What were the buildings used for?

Stone of Destiny, Hill of Tara

Assessment of Learning

(Finding out what the pupils have learned)

- Completion and correction of the written exercises that accompany the unit (The same applies for all units.)
- Ask pupils to identify the location of Tara and the River Boyne on a blank map of Ireland (photocopiable page 87).
- Pupils should be able to empathise with children trying to join the Fianna.
- Ask pupils to order and sequence the events of the story.
- Ask pupils to sketch life on the banks of the Boyne as it would have looked at the time of the Fianna.

Differentiation – More Challenging

1. Complete the written exercises in the Textbook and the Activity Book. (The same applies for all units.)
2. Pretend you are one of the young warriors. Write a letter home to your family telling them about your life in training to be a warrior.
3. Do a mini-project on a similar legendary group, e.g. the Red Branch Knights.
4. Find out more about the tests needed to join the Fianna and prepare a presentation for your class.

Differentiation – Less Challenging

1. Complete the exercises in the Textbook orally or with a partner. (The same applies for all units.)
2. Pair work: Look at the tests for the joining the Fianna. Discuss with your partner what you like/dislike about them.
3. Draw the high king's castle.

Related Websites

http://resources.teachnet.ie/pcoleman/mark2/pages/readsalmon.htm
Salmon of Knowledge activities

http://meathfinegael.ie/?p=142 Aerial photograph of the Hill of Tara

www.mythicalireland.com/ancientsites/tara/
Photographs of various monuments in the vicinity of the Hill of Tara

Extra Ideas

- Have a class debate on the idea that only boys could join the Fianna.
- Read *Irish Legends for Children* by Yvonne Carroll (Gill and Macmillan).

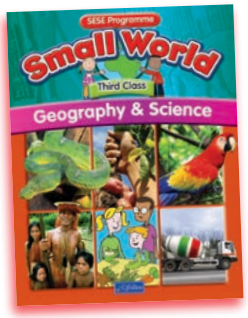
Linkage:

Strand: Local Studies, **Strand Unit:** My Locality Through the Ages – Is there an old fort or ruin dating back thousands of years?

Strand: Early People and Ancient Societies, **Strand Unit:** Early Christian Ireland – Explore facets of life in Pre-Christian Ireland.

Strand: Continuity and Change Over Time, **Strand Unit:** Schools and Education – Study the development of schools through the ages.

Integration:



Geography: *Small World Geography & Science* Political and Physical Maps of Ireland (pages 28-29) – examining maps and finding the places mentioned in the story

Science: Discuss the possibility of carrying out any of the tests for joining the Fianna. Which ones might be possible? Could you: Jump over a branch as high as yourself? Run under a stick set at the height of your knees?

Literacy: Reading from the story and retelling the events of the story in their own words

Numeracy: Calculating distances, length of journeys to Tara, etc.

Visual Arts: The events of the story are quite dramatic and lend themselves to the creation of cartoons, paintings and other media. Everyday life in the warrior training camps and children at play could be illustrated.

Answers – Textbook

Page 9: A. 1. Cumhall **2.** poetry, storytelling and many other skills **3.** the king's warriors **4.** by giving them a drink of water from his cupped hands **5.** you would fall into a deep sleep **6.** on a spit over a fire

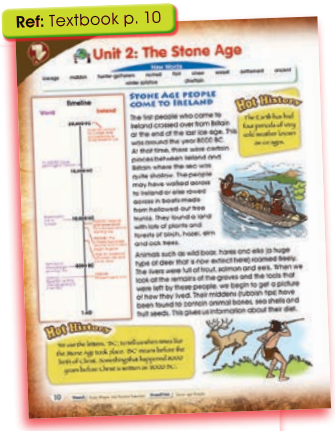
B. 1. wisdom and knowledge **2.** heroes and battles **3.** he fell asleep **4.** trying to catch the salmon **5.** put a cloth over his eyes

Unit 2: The Stone Age

October (1st and 2nd Fortnight)

Strand: Early People and Ancient Societies **Strand Unit:** Stone Age Peoples

Objectives



The child should be enabled to:

- Become familiar with aspects of the lives of Stone Age people, e.g. arrival, settlement and life in Ireland, food, work, weapons, burial practices, faith and beliefs.
- Become familiar with evidence of Stone Age people that may be found locally.
- Record the place of Stone Age people on appropriate timelines.
- Become familiar with important events in the history of the locality, e.g. ancient settlements in rath and dún, and ancient burial sites.
- Explore the idea of the daily fight for survival in terms of the search for food.
- Compare the building practices of Stone Age people with the development of the built environment in recent times.

New Words

midden	hunter-gatherers	nomad	flint	sinew	vessel
settlement	ancient	winter solstice			chieftain

Lesson Kernel

The threads of this unit are as follows:

- The first Stone Age people came to Ireland around 8000 BC, at a time when the land was rich with plants, forests and wildlife.
- The middens left by Stone Age people give us lots of information about their diet.
- The earliest Stone Age people lived by hunting animals and gathering plants. Because of this, they are known as hunter-gatherers.
- Stone Age people wasted nothing – every part of an animal they killed was used for some purpose.
- By 4000 BC, the hunter-gatherers had become the first farmers, learning to clear woodland so that they could grow crops and keep animals.
- Stone Age people were excellent builders and devised clever ways of transporting the materials needed for building.
- Newgrange is the most sophisticated Stone Age building to be found in Ireland. Many elements of its design and construction provide evidence of well-developed building skills.
- Stone Age people were astronomers. They believed that the worlds of the dead and the living were linked.

Skills

- **Time and chronology:** Recording information about Stone Age people using a timeline, and understanding and using date conventions, e.g. BC
- **Cause and effect:** Discussing the reasons for the hunter-gatherers becoming farmers and the effect this had on their way of life
- **Empathy:** Looking at the information in the unit in terms of the work done by Stone Age men, women and children
- **Synthesis and communication:** Using evidence and imagination to reconstruct events from the past, e.g. preparing to hunt the elk
- **Continuity and change:** Exploring the text to understand those elements of life in Stone Age times that have changed and those that remain the same

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what the pupils already know about Stone Age people.
- Make a list of the tools and weapons used by Stone Age people. What materials were used and how were they made?
- Use pictures of the spiral carvings on the standing stones at Newgrange to stimulate discussion about Stone Age artists. How were the carvings made? Why did they use this particular shape? What do you think the carvings might have meant to Stone Age people?

Assessment of Learning (Finding out what the pupils have learned)

Ask pupils to:

- Identify some places in the unit where evidence of Stone Age people has been found.
- Imagine what it felt like to be a boy or girl living in Stone Age times.
- Draw a timeline to show the sequence of events that happened between the time when the first Stone Age people came to Ireland and the building of Newgrange.
- Draw a sketch of three animals that were hunted by Stone Age people.
- Describe the preparations made by Stone Age people to cook a deer that had been killed by hunters.

Differentiation – More Challenging

1. Pretend you are a Stone Age boy going on his first elk hunt. Talk to your best friend about your feelings regarding the hunt, e.g. excitement, anxiety, skill with weapons, etc.

2. Do a mini-project on another group of early people that interests you, e.g. the Indus culture.
3. Find out about how people cooked when your parents/grandparents were young. Make a presentation to your class.

Differentiation – Less Challenging

1. Pair work: Examine the designs found on Stone Age boulders and buildings. Discuss with your partner what you like/dislike about them.
2. Complete Activity A on Stone Age numbers on page 5 of the Activity Book.

3. Draw a picture of a scene from Stone Age times that appeals to you.

Related Websites

www.bbc.co.uk/schools/primaryhistory/indus_valley Activity about the Indus Valley

www.rte.ie/trte/irelanddigit/ Archaeological adventure game

www.kidspast.com/world-history/0001-prehistoric-humans.php
Activities about prehistoric people

www.itsabouttime.ie/ Archaeology website for primary schools

www.askaboutireland.ie/learning-zone/primary-students/subjects/history/history-the-full-story/irelands-early-inhabitant/ Ireland's early inhabitants

Linkage: **Strand:** Local Studies, **Strand Unit:** My Locality Through the Ages – There may be a rath or dún in your locality.

Strand: Continuity and Change Over Time, **Strand Unit:** Food and Farming – Identify changes that have taken place with foods, farming methods and tools and machinery used. Explore how storage and cooking methods have changed over time.

Integration:

Geography Strand: Natural Environments, **Strand Unit:** The Local Natural Environment

Science Strand: Energy and Forces: How did Stone Age people manage to build structures that survive to this day without technology/machinery? For example, think about the energy required to lift heavy boulders.

Literacy and Oral Language Skills: Reading the text and drawing up comparative analyses under different headings (e.g. food, weapons, tools) with present times; presenting findings to the class

Music: Make a collection of materials that would have been available to Stone Age people, e.g. wood, bones, stones and pebbles (for shakers). Use these materials to explore their value as percussion instruments.

Visual Arts: Examine the symbols and decoration used by Stone Age people. Use various media – e.g. pencil drawing, crayon, Plasticine/modelling clay – to make your own Stone Age creations.

Answers – Textbook

Page 15: A. 1. around 8000 BC, on foot or in boats made from hollowed-out tree trunks **2.** meat, fish, nuts and wild berries **3.** stone (flint), bone, sinews and wood **4.** They needed fine weather for their crops to grow. **5.** how to make tools and weapons/rubbing animal fat on one's skin to keep out the cold/how to make a type of boat/'nappies'/farming methods/ making pottery from clay/animal-fat lamps/ moving large stones by rolling them on tree trunks/that the shortest day of the year is December 21st

B. 1. elephant **2.** France **3.** deer **4.** an axe

Answers – Activity Book

Page 4: C. ice age – time when the Earth was covered in ice; BC – Before Christ; elk – a type of large deer; mammoth – large, red, hairy animal like an elephant; midden – rubbish tip; nomad – person who moves around to follow the supply of food; flint – a very hard stone; winter solstice – December 21st (the shortest day of the year)

Page 5: A. 1. (b) 7 **(c)** 6 **(d)** 7 **(e)** 12 **2. (a)** 1 **(b)** 1 **(c)** 5 **(d)** 1 **(e)** 3 **3. (b)** 99 **(c)** 99 **(d)** 84 **4. (a)** 84 **(b)** 21 **(c)** 33 **(d)** 51

Unit 3: Food and Farming

November (1st and 2nd Fortnight)

Strand: Continuity and Change Over Time **Strand Unit:** Food and Farming

Objectives

The child should be enabled to:

- Study aspects of social, technological and scientific developments over long periods of time.
- Identify items of continuity and change in the line of development.
- Identify some of the factors that have caused or prevented change.
- Become familiar with the origins and traditions associated with various festivals, e.g. Annual Ploughing Championships, Ballinasloe Horse Fair, Galway Oyster Festival.
- Become familiar with important events in the history of the locality, including those associated with the Great Famine and changes that may have occurred in farming practices.
- Collect related local ballads, stories and traditions.
- Refer to and use appropriate timelines.
- Present findings using a variety of media.

New Words

yoke	combine harvester	quern-stone	archaeologist	blight
organic	domesticated	billycan	free range	battery

Lesson Kernel

The threads of this unit are as follows:

- Middens left by Bronze Age people provide lots of information about crops grown at that time.
- The same crops continue to be grown, but the manner of harvesting has developed over the years – particularly in wealthy countries, where large machinery is used for the task.
- Comparison with life in the past, when the variety of food that we have today was not available
- The origin and uses of the crop called maize
- Ireland's relationship with the potato; introduction to the Great Famine and its consequences for Irish people
- How the demands of a Roman Emperor laid the groundwork for the production of food in greenhouses, and an introduction to the notion of organic methods of food production
- Farm animals (cattle, sheep, pigs, poultry), the rearing of animals, patterns of farming in Ireland, and taking account of changed practices over time
- Products derived from animals – examples of traditions in relation to how meat is processed

Skills

- **Time and chronology:** Distinguishing between food growing practices in the past and in the present. Recording information about developments in food production using a timeline, and understanding and using date conventions, e.g. BC
- **Cause and effect:** Discussing the reasons why potato blight was such a problem in the past. Does it happen now to the same extent, and would it have the same effect on people's lives today?

- **Empathy:** Looking at the information in the unit from the point of view of the lack of variety in the food eaten by people in the Middle Ages, and in comparison to the huge choices available today
- **Synthesis and communication:** Using evidence and imagination to reconstruct events from the past, e.g. the traditional way of making black pudding from pigs' blood
- **Continuity and change:** Exploring the text to understand those elements of life since early times that have changed and those that remain the same

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what the pupils already know about early farmers.
- Make a list of the tools used by the early farmers. What materials were used and how were they made? How do they compare with modern farming implements?
- Use photographs of different foods (or samples of the foods themselves) to explore children's understanding of the animals and/or plants from which they are made.

Assessment of Learning (Finding out what the pupils have learned)

Ask pupils to:

- Identify some foods mentioned in the unit for which there is evidence from earliest times.
- Imagine what it feels like to be a boy or girl living in a country where maize and corn are still harvested by hand.
- Draw a timeline to show the sequence of events that happened from the time when the potato was brought to Ireland to the first breakfast cereal being developed.
- Draw a sketch of three animals or three plants that are used for food today.
- Describe the sequence of steps involved in turning wheat into bread.

Differentiation – More Challenging

1. Pretend you are a child in a family that has to leave Ireland because of the Great Famine. Talk to or write a letter to your best friend describing your feelings as you wait on the quayside before boarding the ship, e.g. anxiety, sadness, hope, excitement, etc.
2. Do a mini-project on (1) different ways to preserve food, or (2) dairy products.
3. Do a survey to find out which breakfast cereals are the most popular in your class or school. Make a presentation to your class.

Differentiation – Less Challenging

1. Pair work: Plan the meat, vegetables and fruit you would choose for your favourite meals. Discuss what you like/dislike about the foods you have chosen.
2. Complete Activity D on page 6 of the Activity Book on identifying the items that we still use in Ireland today.
3. Draw a picture of a scene to do with food.

Related Websites

www.eyewitnesstohistory.com/farmwife.htm The life of a farmer in 1900

http://knowtheromans.co.uk/ Information about the Romans

Extra Ideas

Find out from your parents and/or grandparents what kinds of food they used to have for breakfast and dinner. Make a list of these foods and compare them with the foods you eat today for the same meals. Was there more or less variety in the past? What are the reasons, in your opinion, for this? What changed? How did this happen? Do you think the food we eat and the way it is produced is better or worse now than it was in the past?

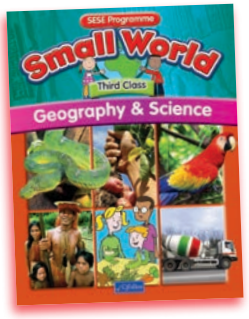
Linkage: **Strand:** Local Studies, **Strand Unit:** My Locality Through the Ages – Down through the years, milk has been sold in open cans, glass bottles and cartons. Divide into pairs/groups. Discuss which of these ways was best from the point of view of (1) freshness, (2) hygiene, (3) the environment and (4) recycling.

Integration: **Geography Strand:** Environmental Awareness and Care, **Strand Unit:** Environmental Awareness.

Science: *Small World Geography & Science* Unit 16: The Sun – Sunlight is necessary for growing food.

Music: Songs – 'Molly Malone', 'The Fields of Athenry', and 'Food, Glorious Food' (from *Oliver!*)

Drama: Dramatise events from the text, e.g. guiding a team of horses while ploughing, using a scythe, feeding hens, preparing the ground for planting, planting, using a quern-stone.



Answers – Textbook

Page 19: 1. planting – farming activity carried out in spring; harvesting – farming activity carried out in autumn; cereals – grain crops; yoke – a beam used between two horses or oxen to help them to pull together; scythe – a large, sharp tool used for cutting crops; combine harvester – a machine used to separate grains from stems; blight – a disease that affects the potato

Page 21: A. 1. wooden spades and ploughs **2. (a)** in the 1840s **(b)** More than a million people died of hunger and another million left Ireland to live in foreign countries. **3.** Mexico **4. (a)** pig **(b)** It was cured by smoking it over a wood fire. **5.** Tiberius

B. 1. the 1840s **2.** cattle **3.** milk **4.** 1 million

Answers – Activity Book

Page 6: C. quern-stones – pair of stones used to grind things like grain; Lumper – type of potato that was popular before the Great Famine; domesticated – no longer wild; tamed to live near people; billycan – an open can for milk; clippers – large scissors used to shear a sheep's fleece; free-range chicken – a chicken that can move around freely and peck the ground for food

D. ✓: Lumper potatoes, battery chickens, tractor, fridge, potatoes, greenhouse, combine harvester; ✗: quern-stones, bronze yoke, billycan, glass milk bottles, a pig's bladder as a football

Page 7: A. 1. (a) four **(b)** three **2.** on a quayside **6.** the sea, boats, a hill/mountain

Unit 4: People of the Tigris and Euphrates Rivers

December (1st and 2nd Fortnight)

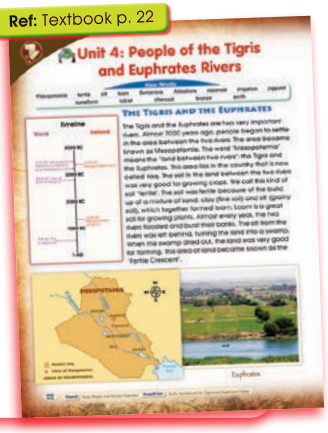
Strand: Continuity and Change Over Time **Strand Unit:** Food and Farming

Objectives

The child should be enabled to:

- Compare the lives of people of the Tigris and Euphrates with his/her own life.
- Discuss the chronology of events in the story.
- Discuss the actions and feelings of people of the Tigris and Euphrates.
- Explore the idea of working on the building of the city of Ur.
- Relate the story of the life of a wealthy person.

Ref: Textbook p. 22



New Words

Mesopotamia fertile silt loam Sumerians Akkadians reservoir irrigation ziggurat cuneiform tablet charcoal bronze smith

Lesson Kernel

The threads of this unit are as follows:

- What was life like for the Sumerians?
- Graves, statues and temples tell us a great deal about what life was like long ago.
- The lives of the people were closely related to the Tigris and Euphrates Rivers.
- Water was directed by means of irrigation.
- Mud from the river banks was used to make clay tablets.
- Fish, meat and vegetables were common types of food.
- The lives of children of wealthy families were different from the lives of children of ordinary families.

Ziggurat

Skills

- **Time and chronology:** Placing the lives of the people of the Tigris and Euphrates on a timeline
- **Cause and effect:** Discussing the effects of the location of the Tigris and Euphrates Rivers
- **Empathy:** Looking at the information in the unit from the points of view of various characters, e.g. priests, smiths
- **Synthesis and communication:** Using evidence and imagination to recreate elements from the story of the people of the Tigris and Euphrates, e.g. writers and traders
- **Continuity and change:** Discussing how life has changed since the time of the people of the Tigris and Euphrates, what elements remain the same, and what contributions of the people of the Tigris and Euphrates are evident in society today

Euphrates

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what the pupils already know about the people of the Tigris and Euphrates.
- On a blank map of the Middle East (photocopiable page 88), show Mesopotamia, the Tigris and Euphrates Rivers and the Fertile Crescent, and discuss the location.
- Use images of the city of Babylon as a starting point for a discussion. What might have happened there? What were the buildings used for, etc.?

Assessment of Learning (Finding out what the pupils have learned)

Ask pupils to:

- Identify some of the other places mentioned in the story.
- Empathise with Sumerian children.
- Order and sequence the events of the story.
- Sketch life on the banks of the Tigris and Euphrates Rivers as it would have looked at the time.
- Tell the story of a Sumerian family in their own words.

Differentiation – More Challenging

- Pretend you are one of the priests. Write a letter home to your family telling them about your life in the temple.
- Do a mini-project on another ancient civilisation of your choice.
- Find out about gods in Mesopotamia and prepare a presentation for the class.
- Find out about the importance of the discovery of bronze.

Differentiation – Less Challenging

Draw a home from the time of the people of the Tigris and Euphrates Rivers.

Related Websites

http://mesopotamia.mrdonn.org/ Information about Mesopotamia

http://knowtheromans.co.uk/ Information about the Romans

www.britannica.com/EBchecked/topic/47575/Babylon Images of Ancient Babylon

Extra Idea

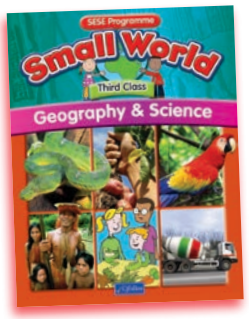
Have a class debate on the idea of the importance of a ziggurat.

Linkage:

Strand: Local Studies, **Strand Unit:** My Locality Through the Ages – Is there an old fort or ruin in your locality dating back 5000 years?

Strand: Early People and Ancient Societies, **Strand Unit:** Egyptians, *Small World History* Unit 9: The Egyptians – Find similarities between the Egyptians (living along the River Nile) and the Sumerians.

Integration:



Geography: Using pictures, maps and globes – examining maps and finding the places mentioned in the story

Science: *Small World Geography & Science* Unit 20: Soils – Learn more about the components of soil and how we depend on it to grow food.

Literacy: Reading the story and retelling the events of the story in pupils' own words

Numeracy: Calculation of distances, length of journeys on the Tigris and Euphrates Rivers, etc.

Visual Arts: The events of the story are quite dramatic and lend themselves to the creation of cartoons, paintings and other media. Everyday life in the Fertile Crescent and children at play could be illustrated.

Drama: Dramatising events from the text

Answers – Textbook

Page 27: A. 1. Mesopotamia (the 'Fertile Crescent') **2.** Sumerians and Akkadians/ Mesopotamians **3.** to guide the water to where it was needed for land irrigation **4.** 24,000 **5.** Priests

B. 1. between **2.** the irrigation system **3.** write **4.** patterns

Answers – Activity Book

Page 8: B. cuneiform – writing that uses patterns; Mesopotamia – 'land between two rivers'; reservoir – lake made by people for storing water; irrigation – guiding water to where it is needed; ziggurat – high tower with a temple built on top of it; fertile – land that is good for growing crops; bronze – mixture of tin and copper

C. ✓: reservoir, bronze, wheels, dam, canal, earrings, irrigation; ✗: ziggurat, cuneiform writing, clay tablet, stone tools, spear

Page 9: A. 1. Jack **2.** Ben **3.** Emma **4.** Grace **5.** Lily **6.** Adam **7.** Sarah **8.** Conor

Unit 5: Setanta

January (1st and 2nd Fortnight)

Strand: Story **Strand Unit:** Myths and Legends

Objectives

The child should be enabled to:

- Compare the lives of people of Ancient Ireland with his/her own life.
- Discuss the chronology of events in the story.
- Discuss the actions and feelings of people in Ancient Ireland.
- Explore the idea of preparing and hosting a banquet.
- Relate the story of the life of an Irish chieftain.

Ref: Textbook p. 28

New Words

sliotar Macra blacksmith banquet wolfhound

Lesson Kernel

The threads of this unit are as follows:

- What was life like for the Ancient Irish people?
- The lives of the people were closely related to the clan or family.
- Many young boys belonged to a group called the Macra.
- The warriors of the Red Branch Knights defended King Conor.
- Banquets were common at Eamhain Macha.

Irish wolfhound

Skills

- **Time and chronology:** Sequencing of events in the story
- **Cause and effect:** Discussing the consequences of killing the hound
- **Empathy:** Looking at the story from the points of view of the various characters, e.g. King Conor and the guests at the banquet
- **Synthesis and communication:** Using evidence and imagination to recreate elements from the story of Setanta, e.g. playing hurling
- **Continuity and change:** Discussing how life has changed since the time of Setanta, what elements remain the same, and what contributions of the Ancient Irish people are evident today.

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what the pupils already know about Irish myths and legends.
- On a blank map of Ireland (photocopiable page 89), show the four provinces and the location of the thrones of the kings and high king and discuss the implications of the locations.
- Use a photograph of Newgrange as a starting point for a discussion. What might have happened there? What was the building used for, etc.?

Assessment of Learning (Finding out what the pupils have learned)

Ask pupils to:

- Identify the location of Eamhain Macha and Ulster.
- Sketch life in Ulster as it would have looked at the time of Setanta.
- Retell the story of Setanta in their own words.

Re-examine the KWL chart and see what additional information the children have learned.

Differentiation – More Challenging

1. Pretend you are one of the Red Branch Knights. Write a letter home to your family telling them about your life defending the High King of Ireland.
2. Find out about the Kings of Ireland and prepare a presentation for your class.

Differentiation – Less Challenging

1. Pair work: Find out about the rules of hurling. Discuss what you like/dislike about them.
2. Draw Eamhain Macha.

Related Websites

www.newgrange.com/ Photographs of Newgrange

www.askaboutireland.ie/learning-zone/primary-students/looking-at-places/louth/cuchulainn/the-hound-of-culann/ The Hound of Culann

Linkage: **Strand:** Early People and Ancient Societies, **Strand Unit:** Early Christian Ireland

Integration: **Literacy:** Reading other Irish myths and legends

Visual Arts: The events of the story are quite dramatic and lend themselves to the creation of cartoons, paintings and other media.

Drama: Dramatising events from the text

Answers – Textbook

Page 31: A. 1. King Conor **2.** to learn to become a member of the Red Branch Knights **3.** the king's warriors **4.** for a banquet **5.** a hurling and camogie competition

B. 1. blacksmith **2.** deer **3.** sliotar **4.** Ulster

Unit 6: Games and Pastimes

February (1st and 2nd Fortnight)

Strand: Local Studies **Strand Unit:** Games and Pastimes in the Past

Objectives

Ref: Textbook p. 32

The child should be enabled to:

- Become familiar with some games and pastimes enjoyed in the locality.
- Explore and discuss games and pastimes enjoyed by parents and grandparents in the past.
- Gain some knowledge of games and pastimes enjoyed by children in ancient societies and in other lands.
- Identify how some games and pastimes, while they may have changed over time, remain to this day.
- Identify some factors that have caused or prevented change.
- Refer to appropriate timelines.

New Words

Colosseum gladiator mummers falconry

Lesson Kernel

The threads of this unit are as follows:

- The importance of keeping fit was recognised in Ancient Greece.
- Sport was so important in Ancient Greece that the Olympic Games were started there.
- The Romans also believed in the importance of sport, but their sporting events were much more violent than those of their Greek neighbours.
- Medieval pastimes continued with some cruel 'sports', but new forms of entertainment developed, e.g. miracle plays, card playing, mumming.
- By the beginning of the twentieth century, while children had to do an inordinate amount of work, there was some time for play. There were not many toys available, so children played games like skipping, marbles and hopscotch.
- Indoors, people entertained themselves by singing, dancing and playing musical instruments.
- In the 1950s, children continued to play with homemade toys, e.g. bows and arrows and go-carts.
- More toys became available during the 1950s, e.g. dolls, teddies, Meccano, Lego, board games and comics.

Skills

- **Time and chronology:** Recording information about the progression of sport from ancient times using a timeline, and understanding and using date conventions, e.g. BC
- **Cause and effect:** Discussing the reasons for changes in the ways that people like to enjoy themselves, e.g. cruelty to animals was commonplace in medieval times, but is less acceptable today

- **Empathy:** Looking at the information in the unit in terms of children having less free time for play in the first part of the twentieth century
- **Synthesis and communication:** Using evidence and imagination to recreate events from the past, e.g. making a go-cart
- **Continuity and change:** Exploring the text to understand those elements of life in Ancient Greece that have changed and those that remain the same

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what the pupils already know about games and pastimes in the past.
- Make a list of the toys and games used by children in the past. Identify which pastimes were undertaken indoors and outdoors.
- Use photographs or a short video showing children playing in the 1950s to stimulate discussion about the kinds of games they played. Where did they get their toys? Were they homemade? If so, how were they made? What do you think were the rules of the game?

Assessment of Learning (Finding out what the pupils have learned)

Ask pupils to:

- Imagine what it felt like to be a boy or girl living in medieval times. Which would have been your least-/most-liked pastimes?
- Draw a timeline to show the sequence of events that happened from the first public library being opened in Dublin to the creation of Mickey Mouse.
- Name three books that were published for children during the twentieth century.
- Describe how children in the 1950s collected and prepared chestnuts to be used as conkers. What materials did they need? Which conkers were the best? What were the rules of the game?

Differentiation – More Challenging

1. Pretend you are a gladiator about to enter the Colosseum. Talk to a friend about your feelings of fear, e.g. the moment you walk into the arena, the crowds shouting, the smell of the large animals, the fear of being hurt or even killed, your plan of action, your weapons, etc.
2. Do a mini-project on Dublin Zoo and compare the variety of animals housed there now with when it was opened in 1831.
3. Write out each step involved in making a daisy chain. Make a presentation to your class.

Differentiation – Less Challenging

1. Make a list of comics that were enjoyed by children in the past. What is your favourite comic?
2. Draw a picture of the most fearsome animal to be found in the Colosseum.
3. Discuss with a partner how the seasons affected the games played by children.
4. Pair work: Draw, colour and cut out your county crest. Display it on the classroom wall.

Related Websites

www.youtube.com/watch?v=h3KDVbKU7is Video clip of children playing street games

http://manchesterhistory.net/LONGSIGHT/GAMES/games2.html
Photographs of children playing street games

www.kidspast.com/history-games/index.php History games

www.itsabouttime.ie/ History games

www.bbc.co.uk/schools/primaryhistory/anglo_saxons/stories_and_pastimes/
Pastimes of the Anglo-Saxons

www.bbc.co.uk/schools/primaryhistory/ancient_greeks/growing_up_in_greece/
Growing up in Ancient Greece

www.bbc.co.uk/schools/primaryhistory/romans/family_and_children/
Ancient Roman families

Linkage: **Strand:** Local Studies, **Strand Unit:** Early Christian Ireland

Integration: **Geography:** Using pictures, maps and globes – Identify cities and countries mentioned in the text and find them on a map of Europe. **Science Strand:** Living Things, **Strand Unit:** Plants and Animals – How did the horse-chestnut tree get its name? Examine the base of a horse-chestnut twig to find the horseshoe shape. Grow your own conkers! Collect chestnuts in autumn. Put them in a paper bag. In spring, plant them in moist compost. **Literacy:** Teacher could read an extract from *Jimeen* to the class. Compare his life with that of children today. **Visual Arts:** Cartoon work based on discussion of Walt Disney characters, e.g. Mickey Mouse and more recent characters developed in Ireland, e.g. from the film, *The Book of Kells* **Drama:** Enact a 'miracle play'. **PE:** Games – Cowboys and Indians; ride a horse; use a lasso/bow and arrow

Answers – Textbook

Page 33: 1. gladiator – a man who took part in fighting competitions; miracle play – a play about a saint's life; mummer – an actor; falconry – using a bird to hunt; Colosseum – a large stadium where contests took place

Page 35: A. 1. every four years **2.** 1831 **4.** two pairs of wheels and a wooden box **5.** Ludo, Snakes and Ladders, Chess, Meccano, Lego **B. 1.** 1928 **2.** 1902 **3.** Rome **4.** horse-chestnut

Answers – Activity Book

Page 12: C. gladiator – man who took part in fighting contests; mummers – actors; falconry – using a falcon to hunt for sport; Colosseum – large arena in Rome, where contests took place

D. ✓ : chasing, football, conkers, hopscotch, marbles, cards, story-telling, board games; ✗ : falconry, stick and hoop, Cowboys and Indians, go-carting (Note: Answers depend on pupil's own experience.)

Page 13: 1. (a) Pieter Bruegel **(b)** 1560

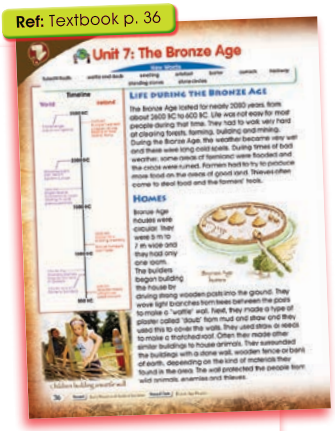
Page 14: B. Ludo – board game played using counters and dice; rounders – team game played using a bat and a ball; hopscotch – game that is played by hopping over marked squares; Cowboys and Indians – players ride imaginary horses and fight their enemies; tag – one person chases the group and says 'tag' when someone is caught; marbles – game that is played using small balls of coloured glass

Unit 7: The Bronze Age

(Optional/Alternative Unit)

Strand: Early People and Ancient Societies **Strand Unit:** The Bronze Age

Objectives



The child should be enabled to:

- Become familiar with aspects of the lives of Bronze Age people, e.g. homes, food, work (farming and mining), trade and transport, burial practices, faith and beliefs.
- Become familiar with evidence of Bronze Age people that may be found locally, e.g. ancient settlements and ancient burial sites.
- Record the place of Bronze Age people on appropriate timelines.
- Explore the links that Irish Bronze Age people had with people outside Ireland.
- Collect local stories and traditions related to the Bronze Age.
- Compare means of transport used by Bronze Age people with developments in this area through the ages, up until recent times.

New Words

fulacht fiadh	wattle and daub	smelting	artefact	barter
currach	trackway	standing stones		stone circles

Lesson Kernel

The threads of this unit are as follows:

- Description of life in the Bronze Age in terms of weather, work, development of building and mining
- The middens left by Bronze Age people provide lots of information about their diet.
- The beginning of mixed farming
- The development of mining and methods to extract minerals from rock
- How the Bronze Age people got their name
- The importance of trade and travel and the system of bartering for necessary goods
- Developments in methods of transport and the need for building trackways
- Bronze Age burial practices
- Standing stones and stone circles and their importance in religious events and celebrations

Skills

- **Time and chronology:** Recording information about Bronze Age people using a timeline, and understanding and using date conventions, e.g. BC
- **Cause and effect:** Discussing the reasons for Bronze Age people becoming traders and craftsmen, and the effect this had on their way of life
- **Empathy:** Looking at the information in the unit from the point of view of the work done by Bronze Age men, women and children

- **Synthesis and communication:** Using evidence and imagination to recreate events from the past, e.g. your community travelling to a celebration at the standing stones
- **Continuity and change:** Exploring the text to understand those elements of life during the Bronze Age that have changed and those that remain the same

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what the pupils already know about Bronze Age people.
- List the methods of transport on land and water that were used by Bronze Age people.
- Highlight the notion that Bronze Age people used barter, in order to stimulate discussion about how societies pay for the goods they require. What items could be swapped or traded? Why did they use this particular method? What do you think were some of the goods that were of particular importance to Bronze Age people?

Assessment of Learning (Finding out what the pupils have learned)

Ask pupils to:

- Identify some places mentioned in the unit where evidence of Bronze Age people has been found.
- Imagine what it felt like to be a boy or girl living in Bronze Age times.
- Draw a timeline to show the sequence of events that happened from the beginning of Europe's earliest copper mine to the making of Bronze Age trumpets.
- Draw a sketch of a Bronze Age home.
- Describe the method used by Bronze Age people to make a wattle-and-daub wall.

Differentiation – More Challenging

1. Pretend you are a Bronze Age child who has been left in charge of the fulacht fiadh because your mother has a cold. Ask your best friend to help you. Plan how you will cook a meal for the group of adults who will be returning from building a new trackway. Make a presentation to your class.
2. What difficulties would Bronze Age traders have had when travelling to England and Europe?
3. Explore another culture that was developing at the same time as the Bronze Age in Ireland, e.g. the Maya in Central America.

Differentiation – Less Challenging

1. Pair work: Examine some photographs of Bronze Age jewellery. Pay particular attention to the designs used. Discuss with your partner what you like/dislike about them.
2. Complete Activity D on page 15 of the Activity Book.
3. Draw a picture of a scene from Bronze Age times that appeals to you.

Related Websites

www.rte.ie/trte/irelanddigit/ Information about Bronze Age artefacts

www.scoilnet.ie/womeninhistory/content/unit1/bronze.html
Information about Bronze Age artefacts

www.askaboutireland.ie/learning-zone/primary-students/subjects/history/history-the-full-story/irelands-early-inhabitant/bronze-age-people/ Ireland's Bronze Age people

Linkage: **Strand:** Local Studies, **Strand Unit:** My Locality Through the Ages – There may be a standing stone or stone circle in your locality. Visit it and find out what you can about it.

Integration: **Science Strand:** Materials, **Strand Unit:** Properties and Characteristics of Materials **Literacy:** Reading the text and drawing up comparative analyses under different headings – e.g. house building, food preparation, methods of mining, with present times – and presenting findings to the class **Music:** Make a collection of stones, metals and other materials, e.g. wood, that were available during the Bronze Age. Use these to create a rhythm to go with a 'Bronze Age Class Rap'. Include some of the new words learned in History to make up your rap. **Visual Arts:** Design and make a model of a Bronze Age house/settlement/stone circle with a celebration taking place around it. Wool/fabric/paper could be used to make a representation of wattle-and-daub walls. (Link to introduction of flax at this time and the skill of weaving.) **Drama:** Dramatise events from the text, e.g. using the fulacht fiadh (show how care would be taken with hot stones and boiling water!), building a trackway, burial/celebratory rituals. **Gaeilge:** Identify phrases that would have been needed when preparing food in Bronze Age times. Practise these phrases in small groups/pairs.

Answers – Textbook

Page 38: 1. archaeologist – a person who studies ancient remains; blacksmith – a person who makes metal objects; fulacht fiadh – a water-filled pit used for cooking; flax – a crop grown for making cloth and giving oil; smelting – a method of separating a metal from rock; artefacts – old/ancient objects

3. Set the rocks on fire. When the rocks are red-hot, throw cold water on them to cause them to crack. Break the rocks into smaller pieces with a stone hammer. Heat the rocks again. As the copper heats up, it melts and flows out of the rocks.

Page 41: A. 1. tin and copper **2.** very wet with long cold spells **3.** 2600 BC **4.** circular, 5 m to 7 m wide **5.** Flax is a plant. Its fibres were used to make cloth and its seeds were used to make oil for lighting. **B. 1.** 2000 **2.** hazel sticks **3.** get copper from rock **4.** swap goods **C. 2.** Stone Age method: The pit was lined with waterproof animal skins and the meat was placed in the stomach of a dead animal. 'Fulacht fiadh' method: The pit was lined with wood or stones and the meat was wrapped in straw, allowing it to float, thereby making it easier to lift out.

Answers – Activity Book

Page 15: C. fulacht fiadh – wood or stone pit filled with water and used for cooking; wattle and daub – sticks and mud used for building walls; midden – rubbish tip; smelting – using heat to melt metal from rock; artefact – old/ancient object; barter – trading with goods instead of money; currach – small boat made from wood and canvas and coated with tar; standing stones – large, upright stones, sometimes marking a Bronze Age grave; stone circles – stones set in a circle and used to mark special events **D.** ✓ : gold, sewing needle, bell, pin, bronze, copper; ✗ : spear, roads made from hurdles, dug-out canoe, fulacht fiadh, midden, cauldron

Page 16: A. 2 When the rock was red-hot, they threw cold water on it. 3 The cold water caused the rock to crack and they used stone hammers to break it into smaller pieces. 4 Then, they heated the small pieces of rock with the copper inside. 5 The copper was given to smiths to make tools, weapons and ornaments. **B. 2.** armlets **3.** dagger **4.** horns **5.** collar **6.** shield **7.** bells **8.** earrings **9.** spear **10.** rings **11.** rattles **12.** tools **13.** knives **14.** needles **C.** 3 Light a fire. 4 Place stones in the fire to heat up. 5 Fill the pit with water. 6 Roll the hot stones into the water and wait for the water to boil. 7 Wrap meat in straw. 8 Place the wrapped meat in the boiling water. **Page 17: B. 1.** June 21st **2.** longest

Unit 8: Saint Brendan

(Optional/Alternative Unit)

Strand: Story **Strand Unit:** Myths and Legends

Objective

The child should be enabled to learn about the myths associated with the legends of Ireland.

Ref: Textbook p. 42

New Words

navigator cells Hy-brasil explorer manuscript monastery

Lesson Kernel

The threads of this unit are as follows:

- The voyage of Saint Brendan to America is one of the oldest explorations recorded in manuscript form.
- The story shows the stamina and endurance of a group of sailors on a very difficult journey.

Skill

Pupils will learn about the bravery and sense of adventure shown by explorers like Saint Brendan.

Prayer room at Gallarus

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Saint Brendan was one of the first people to sail west across the Atlantic Ocean. Has anyone ever heard of him? Fill in a KWL chart based on what the pupils already know about Saint Brendan.
- Exploration and adventure have always been important to people. Today we go on holidays. Where have some of the pupils been on holidays?
- Have the pupils or anyone they know ever been on a difficult/challenging journey, e.g. a long walk or hike? Has anyone had an adventure, e.g. been camping or sailing?

Assessment of Learning (Finding out what the pupils have learned)

Ask pupils to:

- Identify some places mentioned in the unit on a map of the world.
- Imagine what Saint Brendan and the other monks felt like when they landed in 'Paradise'.
- Tell the story of the Brendan Voyage in their own words.
- Draw a sketch Saint Brendan's boat.

Differentiation – More Challenging

1. Write your own story about what happened after Saint Brendan and his monks reached land.
2. Write a short story from the whale's point of view. How did it feel when a group of humans started walking around on its back? Did it get really annoyed when they lit a fire?
3. Describe how Tim Severin and his team might have prepared for their journey in the *Brendan*. What do you think they might have taken with them on the boat?
4. Write a poem about the monks seeing the 'silver coloured' iceberg and the walruses.

Differentiation – Less Challenging

1. Draw or paint a picture of Saint Brendan and the monks being thrown off the whale's back.
2. Colour a picture of Saint Brendan (photocopiable page 90).

Related Websites

https://sites.google.com/site/craggaunowenproject
Information about the Craggaunowen Project

www.youtube.com/watch?v=wB2EsZhzVtE *Saint Brendan the Navigator* (Part 1)

Linkage:

Strand: Early People and Ancient Societies, **Strand Unit:** Early Christian Ireland

Strand: Continuity and Change Over Time, **Strand Unit:** Transport – Compare Saint Brendan's voyage with Tim Severin's. How might their journeys have been different? (If something went wrong, Tim had access to various technologies that Saint Brendan didn't have.)

Integration:

Science Strand: Materials, **Strand Unit:** Properties and Characteristics of Materials – boatbuilding and the materials used to ensure that boats are waterproof

Geography Strand: Human Environments, **Strand Units:** Transport and Communications; People and Other Lands

Answers – Textbook

Page 45: A. 1. an iceberg **2.** walruses **3.** Mount Brandon **4.** *Brendan* **5.** The Central Bank of Ireland produced €10 coins showing Saint Brendan sailing towards America.

B. 1. Tralee **2.** explorer **3.** monastery **4.** Columbus

Answers – Activity Book

Page 18: B. navigator – person who gives directions; cell – small beehive-shaped hut, where a monk prayed; Hy-brasil – legendary island that was said to be covered in mist; manuscript – handwritten book; monastery – building in which monks live and pray; explorer – person who travels to discover new people and places

Unit 9: The Egyptians

(Optional/Alternative Unit)

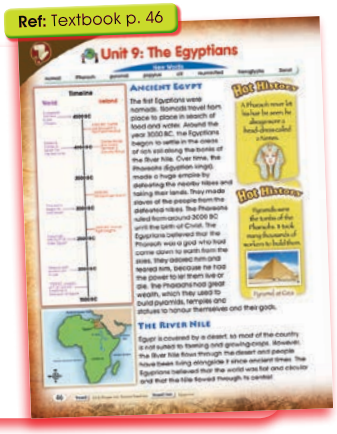
Strand: Early People and Ancient Societies **Strand Unit:** Egyptians

Objectives

The child should be enabled to:

- Compare the lives of the Egyptians with his/her own life and with the lives of other people in the past.
- Discuss the chronology of events in the story of the lives of the Egyptians.
- Discuss the actions and feelings of people in Ancient Egypt.
- Explore the idea of working on the building of the pyramids.
- Relate the story of the life of a poor person in Ancient Egypt.

Ref: Textbook p. 46



New Words

nomad Pharaoh pyramid papyrus silt mummified hieroglyphs Senet

Lesson Kernel

The threads of this unit are as follows:

- What was life like for the Egyptians?
- The pyramids, statues and temples tell us a great deal about what life was like in Ancient Egypt.
- People's lives were closely linked to the River Nile.
- Crops were planted after the land was flooded. Mud from the riverbanks was used to make bricks.
- Fish and bread were common forms of food.
- The lives of children of wealthy families were different from the lives of children of ordinary families.

Great Pyramid of Giza

Skills

- **Time and chronology:** Placing the lives of the Egyptians on a timeline
- **Cause and effect:** Discussing the effect that the flooding of the River Nile had on the lives of the Egyptians
- **Empathy:** Looking at the information in the unit from the points of view of various characters, e.g. Pharaohs and slaves/workers
- **Synthesis and communication:** Using evidence and imagination to recreate elements from the story of the Egyptians, e.g. lives of children
- **Continuity and change:** Discussing how life has changed since the time of the Egyptians, what elements remain the same, and what contributions of the Egyptians are evident in society today

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what the pupils already know about the Egyptians. Has anyone ever been to Egypt? Has anyone ever heard of Tutankhamun, the pyramids or the River Nile?
- On a blank map of Africa (photocopiable page 194), show Egypt, the River Nile and the Sahara Desert, and discuss the implications of their locations.
- Use a photograph of the pyramids as a starting point for a discussion. What might have happened there? What were the buildings used for, etc?

Mask of Tutankhamun

Assessment of Learning

(Finding out what the pupils have learned)

Ask pupils to:

- Identify the location of Egypt, the River Nile and the Sahara Desert on a blank map of Africa (photocopiable page 194).
- Empathise with Egyptian children.
- Sketch life along the banks of the River Nile as it would have looked during the time of the Egyptians.
- Retell the story of an Egyptian family in their own words.

Differentiation – More Challenging

1. Do a mini-project on another ancient civilisation of your choice.
2. Find out about temples in Egypt and prepare a presentation for your class.
3. Pair work: Find out more about hieroglyphs and write a message for your partner to decipher.

Differentiation – Less Challenging

1. Use the information that your classmates have discovered on hieroglyphs and copy some 'words' or just symbols for letters.
2. Colour the picture of the Egyptian head-dress, or Nemes (photocopiable page 91).

Related Websites

http://egypt.mrdonn.org/ Information about many aspects of life in Ancient Egypt

www.kids.nationalgeographic.com/kids/photos/ancient-egypt/
Egypt facts and photographs

Extra Idea

Have a class debate on the idea that schools were only for boys in Ancient Egypt.

Linkage:

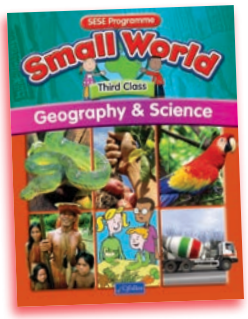
Strand: Local Studies, **Strand Unit:** My Locality Through the Ages – Make comparisons between the life of the Egyptians and life in Ireland, e.g. houses, games and education.

Strand: Continuity and Change Over Time, **Strand Unit:** Food and Farming – Study the development of food and farming through the ages.

Integration:

Science Strand: Energy and Forces, **Strand Unit:** Forces – Learn more about how the Egyptians built the pyramids using pulleys, ramps, tracks, rollers and sledges. Watch *Building the Great Pyramid* (BBC) at www.youtube.com/watch?v=zwiic6BoleQ. (This is the first of six videos depicting the construction of the Great Pyramid of Giza and life along the River Nile.)

Geography: *Small World Geography & Science* Unit 11: Egypt – Learn about modern Egypt in Geography while reading about Ancient Egypt in History.



Literacy: Read some additional library books about Egypt or the Egyptians.

Numeracy: Look at the timeline. Estimate and then calculate the difference in time between various events, e.g. when Newgrange was built and when the Bronze Age began.

Visual Arts: Paint a picture of everyday life along the River Nile and children at play.

Answers – Textbook

Page 49:

A. 1. the Pharaohs **2.** wheat, beans, onions, lettuce, leeks **3.** Floodwater from the River Nile left behind a rich mud called silt, which made the soil fertile. **4.** roasted goose, stewed beef, duck, gazelle, cheese, vegetables stewed in milk, wine **5.** They wore stylish clothes and jewellery made from fine materials, green eyeshadow, black eyeliner, red lipstick, perfume and wigs.

B. 1. paper **2.** tombs **3.** letters **4.** game

Answers – Activity Book

Page 19:

C. 1. People who travel in search of food and water: nomads **2.** A type of king: Pharaoh **3.** Tombs of the Pharaohs: pyramids **4.** A fine, rich and fertile mud: silt **5.** A type of paper made from reeds: papyrus **6.** A mummified Pharaoh: mummy **7.** Picture signs that stood for letters and words: hieroglyphs **8.** An Ancient Egyptian board game: Senet

D. ✓: wheel, mirror, bread, perfume, eyeshadow; ✗: papyrus, hieroglyphs, pens made from reeds

E. ✓: catch fish for food, get tattoos, write the year a wine was produced on its label; ✗: create mummies when people die, only go to school if you are very rich, wear no clothes until you become a teenager

Page 20: A. 3 (a) I live beside the Nile **(b)** I can see a pyramid **(c)** I write on papyrus

Unit 10: The Wooden Horse of Troy

March (1st and 2nd Fortnight)

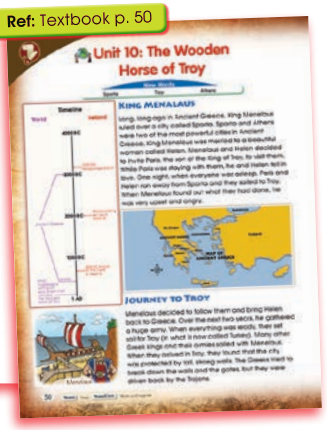
Strand: Story **Strand Unit:** Myths and Legends

Objectives

The child should be enabled to:

- Compare the lives of the Trojans with his/her own life and with the lives of other people in the past.
- Discuss the chronology of events in the story of the wooden horse.
- Discuss the actions and feelings of people in Trojan times.
- Explore the idea of working on the building of the wooden horse.
- Relate the experience of a Greek soldier inside the wooden horse.

Ref: Textbook p. 50



New Words

Sparta Troy Athens

Lesson Kernel

The threads of this unit are as follows:

- What was life like for the Trojans and Ancient Greeks 5000 years ago?
- Statues and temples tell us a great deal about what life was like 5000 years ago.
- The lives of the people were closely linked to the war for 10 years.
- Preparations for the siege took two years.
- Achilles and Hector were killed in battle.
- The Greeks decided to return home, but their final trick was to build the wooden horse.

Skills

- **Time and chronology:** Placing the lives of the Trojans on a timeline
- **Cause and effect:** Discussing the effect that the Trojan War had on the lives of the ordinary people
- **Empathy:** Looking at the information in the unit from the points of view of various characters
- **Synthesis and communication:** Using evidence and imagination to recreate elements of Trojan life
- **Continuity and change:** Discussing how life has changed since the Trojan War and what elements remain the same

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what pupils already know about the Ancient Greeks.
- On a blank map of Greece (photocopiable page 92), show the cities of Troy, Sparta and Athens, and discuss the implications of the location in the preparation for war.
- Use a photograph of the wooden horse as a starting point for a discussion. What might have happened? What was this used for, etc?

Assessment of Learning (Finding out what the pupils have learned)

Ask pupils to:

- Identify some of the other places mentioned in the story.
- Empathise with Trojan/Greek children.
- Sketch life in the city of Troy before the war.
- Retell the story of a Trojan family in their own words.

Differentiation – More Challenging

1. Pretend you are one of the Greek warriors. Write a letter home to your family telling them about your life of fighting for 10 years.
2. Do a mini-project on another ancient civilisation of your choice, e.g. the Maori.
3. Find out about the Greek gods and prepare a presentation for your class.
4. Write the story of what would have happened if the Trojans had taken the advice of the old woman.

Differentiation – Less Challenging

Draw a picture of Achilles' mother dipping him in the River Styx and holding him by the heel.

Related Websites

www.clubs.calvin.edu/chimes/article.php?id=4245
Photograph of the wooden horse used in the film, *Troy*

www.youtube.com/watch?v=9RYGQQ_qybY
Cartoon: *The Trojan Horse* (identify differences between this version and the unit)

www.bbc.co.uk/schools/primaryhistory/ancient_greeks/
Information about Ancient Greece

Linkage: **Strand:** Continuity and Change Over Time, **Strand Unit:** Schools and Education – Read about schools in Ancient Greece in Unit 11, page 54.

Integration: **Science Skills:** Design and Make – Research some information on how the wooden horse was built. Can the children design and make a model replica? Could they use different materials to make it?

Literacy: Read other Greek legends such as *King Midas*, *Daedalus and Icarus*, *Jason and the Golden Fleece* and *Androcoles and the Lion*.

Answers – Textbook

Page 43: 1. Menelaus **2.** Achilles **3.** 10 years **4.** a wooden horse **5.** The Greek warriors climbed out of the horse during the night and opened the city gates, allowing the Greek army to enter. **B. 1.** Sparta **2.** strong walls **3.** a plan **4.** Greece

Answers – Activity Book

Page 22: A. 1. Turkey **2.** Italy **3.** Albania, Macedonia, Bulgaria **4.** Aegean Sea **5.** Ionian Sea **6.** Black Sea **B.** Helen – Queen of Sparta; Menelaus – King of Sparta; Hector – greatest warrior in Troy; Paris – brother of Hector; Achilles – greatest warrior in Greece

Unit 11: Schools and Education

April (1st and 2nd Fortnight)

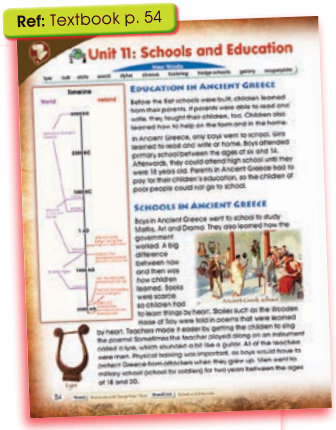
Strand: Continuity and Change Over Time **Strand Unit:** Schools and Education

Objectives

The child should be enabled to:

- Study aspects of social, artistic, technological and scientific developments from the time of the Ancient Greeks to the present day.
- Identify items of continuity and change in the line of development of schools and educational practices.
- Refer to and use appropriate timelines.
- Attempt to reconstruct a school day in the past using a range of simple evidence.
- Compare school furniture and equipment and the appearance of the classroom from the past with those of today.

Ref: Textbook p. 54


Unit 11: Schools and Education

EDUCATION IN ANCIENT GREECE

SCHOOLS IN ANCIENT GREECE

New Words

lyre ludi slate scroll stylus abacus fostering hedge schools gallery copperplate

Lesson Kernel

The threads of this unit are as follows:

- Early educational practices in Ancient Greece – children were taught first by their parents
- In Ancient Greece, only boys went to school, where they learned a variety of subjects including Mathematics, Art, Drama and the workings of government. Much learning was done by heart and children chanted their lessons. PE was considered to be very important.
- Girls were expected to attend school in Ancient Rome. Methods included using a scroll for reading and a wax tablet and stylus for writing.
- The difficulties of teaching and learning Mathematics using Roman numerals
- Learning a craft was more important than learning to read or write for poor children during the Middle Ages.
- Monastic education was common for boys in Ireland. Fostering was practised. Wealthy families employed tutors, who lived with them and taught the children at home. Hedge schools provided education for many children. They learned Mathematics, English, Latin and History.
- National schools were set up in 1831 to provide education for all children. Children had to bring turf or coal to heat the school. Religious orders became very involved in education.
- In the nineteenth century, class sizes were very large. Some children had to work hard at home or on the farm before walking many kilometres to school each morning.
- Make links with all schools, from ancient times to the present, in terms of children learning to read and write. Different methodologies and teaching implements (e.g. nib pens) were used.
- Greater detail is given in relation to national schools 100 years ago.

Skills

- **Time and chronology:** Placing information about various events to do with schools and education on a timeline, and understanding and using date conventions, e.g. BC
- **Cause and effect:** Discussing the reasons for the changes that took place in schools over time and the effect this had on children's education

- **Empathy:** Looking at the information in the unit from the point of view of the kind of schooling and educational practices experienced by children in former times
- **Synthesis and communication:** Using evidence and imagination to recreate events from the past, e.g. using a scroll, being denied education if you were a girl or poor
- **Continuity and change:** Exploring the text to understand those elements of schools and education that have changed and those that remain the same

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Brainstorm and create a concept map of what the children know about schools and education in the past and present.
- Make a list of the items used in school in the past. What and how were these items used?
- Discuss the different types of schools in our society, e.g. playschools, primary schools of different types (single sex, co-educational, religious, non-denominational), post-primary and college/third level.

Assessment of Learning (Finding out what the pupils have learned)

- Identify some items/practices mentioned in the unit that may still be part of the pupils' experience of school, even though their outward appearance has changed.
- Assess the impact of new technology on pupils in schools today.
- Compare and contrast the kind of education received by children in Ancient Greece or Rome with the national schools in Ireland in the past and the schools we have now.
- Ask pupils to explain in their own words how the education system works.
- Use appropriate timelines to highlight changes that have occurred in schools.

Differentiation – More Challenging

1. Group work: Each group discusses one of the following issues and then reports back to the whole class: (1) If you had a choice, would you prefer to have lived at a time when there were no schools? What would you have learned then? (2) The main reasons why children go to school today (3) The six most important things children learn in school (4) Why do you think it is important to know how to read and write and do mathematics? (5) Do you think that children are treated better now than they were in the past? (6) In the future, there will be no schools. Children will use IT to learn.
2. Find out about how your parents or grandparents were taught and what they learned when they were in primary school. Make a presentation for your class.
3. Look at the copperplate handwriting on page 58 of the Textbook. Write the word 'Education' in a similar way.

Differentiation – Less Challenging

1. Pair work: Most people remember something about their first day at school because it is a very important event in a person's life. Talk about this with your partner. What do you remember about your first day? How did you get to school? Who brought you? Were you nervous or excited? What was your teacher's name?
2. Pair work: Make a list of five things that have changed in schools since the time of the Ancient Greeks.
3. Retell in your own words what you have learned about schools 100 years ago in Ireland.

Related Websites

www.bbc.co.uk/learningzone/clips/changes-in-school-life-since-1948/5096.html
Changes in school life since 1948

www.bbc.co.uk/schools/primaryhistory/victorian_britain/ Growing up in Victorian Britain

http://www.bbc.co.uk/schools/primaryhistory/world_war2/growing_up_in_wartime/
Growing up in wartime

Linkage:

Strand: Local Studies, **Strand Unit:** My School – Conduct a survey of former pupils of your school. Find out about how their days were organised, the books they used, homework, etc. Make a display of old textbooks, copies and items used in school in the past. Invite parents to see the display and discuss it with them.

Integration:

Numeracy: Match modern numerals with those used by the Romans. Do some arithmetic using the Roman form and compare with the form normally used.

Music: Learn 'An bhfaca tú mo Sheamuisín'.

PE: Organise an old-fashioned drill session.

Gaeilge: Learn a poem (or two) that deal(s) with being outside and away from school (photocopiable pages 93–94 and more at http://comhaltas.ie/education/comhra/danta#ir_g_a_ph_ist).

Answers – Textbook

Page 59: A. 2. Drill **3.** turf and coal **4.** needlework **5.** slate and chalk, and nib pen and ink

B. 1. cocoa and bread **2.** 1831 **3.** PE **4.** copperplate

Answers – Activity Book

Page 23: C. lyre – musical instrument; ludi – word for schools in Ancient Rome; slate – flat, dark stone, used for writing on with chalk; scroll – roll of papyrus, used like a page; stylus – tool used for writing in Ancient Rome; abacus – frame with tiny balls, used for counting; fostering – children living with families other than their own; hedge school – open-air school; copperplate – type of handwriting

Unit 12: King Arthur and Excalibur

May (1st and 2nd Fortnight)

Strand: Story **Strand Unit:** Myths and Legends

Objectives

The child should be enabled to:

- Compare the life of people in Arthurian Britain with his/her own life.
- Discuss the chronology of events in the story of the life of King Arthur.
- Explore the idea of historical values and morals.
- Relate the story of the life of a Knight of the Round Table.

New Words

Camelot Saxons Excalibur

Lesson Kernel

The threads of this unit are as follows:

- What was life like for a knight?
- The story of the sword Excalibur tells us a great deal about what life was like years ago.
- The lives of the people were closely related to that of the king.
- King Arthur was advised by his loyal adviser, Merlin, and his friend, Sir Bedivere.

Skills

- **Cause and effect:** Discussing the effect that the wars had on the lives of ordinary people
- **Empathy:** Looking at the story from the points of view of the various characters, e.g. Sir Bedivere
- **Synthesis and communication:** Using evidence and imagination to recreate events from the past, e.g. what might have been the story behind the Lady of the Lake
- **Continuity and change:** Discussing how life has changed since the time of King Arthur

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what the pupils already know about King Arthur. Have they heard about him before? What do they know about the Knights of the Round Table, Merlin and Excalibur? Has anyone seen the film, *The Sword in the Stone*?
- Use an image of Camelot as a starting point for a discussion. What might have happened there? What were the buildings used for, etc?

Assessment of Learning (Finding out what the pupils have learned)

Ask pupils to:

- Identify some of the places mentioned in the story.
- Empathise with children in Arthurian times.
- Order and sequence the events of the story.
- Sketch life at Camelot as it would have looked at the time of King Arthur.

Differentiation – More Challenging

1. Pretend you are one of the knights. Write a letter home to your family telling them about your experiences in battle.
2. Find out more about the Knights of the Round Table. How did a person join?
3. Find out about castles in Britain and prepare a presentation for your class.
4. Write an obituary for King Arthur for the local *Camelot Times*.
5. Design a flag for King Arthur to wield in battle.

Differentiation – Less Challenging

1. Draw a picture of the palace at Camelot.
2. Merlin was a magician. Find out how to do a magic trick and perform it for the class.

Related Websites

http://claricemoran.wikispaces.com/Camelot	Image of Camelot
www.storynory.com/archives/educational-stories/	Audio of other Arthurian legends
www.earlybritishkingdoms.com/kids/index.html	Early British kingdoms

Extra Idea

Group work: Find out about the 'dubbing of a knight'. Present your findings to the class.

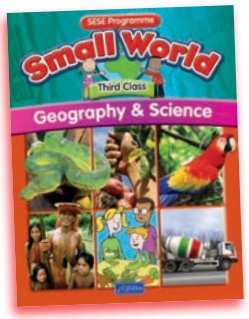
Linkage: **Strand:** Life, Society, Work and Culture in the Past, **Strand Unit:** Life in Medieval Towns and Countryside in Ireland and Europe – Read about life in medieval towns (Unit 14).

Integration: **Geography:** *Small World Geography & Science* Unit 9: Britain

Literacy: Research and read about Sir Lancelot, the greatest knight of all.

Visual Arts: Paint a picture of the knights sitting at the Round Table.

Drama: Write/perform the dialogue between the Lady of the Lake and King Arthur when he first met her.



Answers – Textbook

Page 63: A. 1. A legend can start off as a true story, but as it is told over and over, new bits are added. **2.** He gathered a great army and got rid of the enemies of the country – the Saxons. **3.** Knights of the Round Table **4.** a very wise magician **5.** deep into the forest, to the cottage of an ancient healer

B. 1. Camelot **2.** a lake **3.** rest **4.** Germany

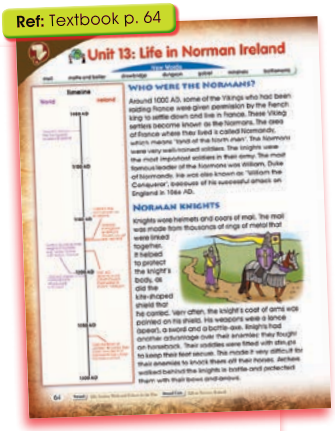
Unit 13: Life in Norman Ireland

June (1st and 2nd Fortnight)

Strand: Life, Society, Work and Culture in the Past **Strand Unit:** Life in Norman Ireland

Objectives

Ref: Textbook p. 64



The child should be enabled to:

- Become familiar with aspects of the lives of the Normans in Ireland, e.g. arrival and settlement, food, weapons, leisure and pastimes.
- Become familiar with evidence of the Normans that may be found locally.
- Record the place of the Normans on appropriate timelines.
- Compare the building practices of the Normans with the development of the built environment in recent times.
- Identify items of continuity and change in the line of development of areas such as clothes, food and homes/houses.
- Explore the origin of some family names, e.g. Fitzgerald and O'Sullivan.

New Words

motte and bailey | drawbridge | dungeon | goblet | minstrels | battlements

Lesson Kernel

The threads of this unit are as follows:

- Origin of the Normans and their leader in Normandy, William the Conqueror
- Description of a Norman knight in terms of armour, weaponry and coat of arms
- Diarmuid MacMurrough; his invitation to the Normans and his promises to Strongbow

Trim Castle, Meath

- The arrival of the Normans and their progress to Dublin, where they captured the city
- Norman building methods, i.e. motte and bailey
- Norman castles, their structure and design, e.g. in Trim and Limerick
- Norman way of life, i.e. food and entertainment
- Norman clothes, i.e. styles, fashions, materials and shoes
- Norman amusements and festivals, i.e. games played, festivals that were observed
- 'More Irish than the Irish themselves' – how the Normans adapted to the Irish way of life

Skills

- **Time and chronology:** Recording information about the Normans using a timeline, and understanding and using date conventions, e.g. AD
- **Using evidence:** Using a number of sources to create a broader picture of the history of the Normans such as documents, e.g. the *Bayeux Tapestry* and buildings, objects, etc.
- **Cause and effect:** Discussing the manner in which the Normans adapted to living in Ireland and the effect this had on their way of life

- **Empathy:** Looking at the information in the unit from the point of view of the Norman invasion and the resulting effects on both the Normans and the indigenous population
- **Synthesis and communication:** Using evidence and imagination to recreate events from the past, e.g. building a motte and bailey
- **Continuity and change:** Exploring the text to understand those elements of life in Norman times that have changed and those that remain the same

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what pupils already know about Norman life in Ireland.
- Make a list of the clothes worn by the Normans. What materials did they use?
- Use photographs of the remains of various Norman castles in Ireland to stimulate discussion in relation to styles of design and methods of building. What was a moat? How was it built? What was its purpose? When were the first Norman castles built in Ireland? Can you name any of them?

Assessment of Learning (Finding out what the pupils have learned)

Ask pupils to:

- Identify some places mentioned in the unit where evidence of the Normans can still be found.
- Imagine what it felt like to be a boy or girl living in Ireland when the Normans first arrived.
- Draw a timeline to show the sequence of events that happened from the time of the Battle of Hastings to the building of Christ Church Cathedral in Dublin.
- Draw a sketch of three pieces of armour/weapons used by a Norman knight.
- Describe the preparations that would have been made before a feast in a Norman castle.
- Name and give the dates of the festivals observed by the Normans after they had settled in Ireland.

Differentiation – More Challenging

1. Pretend you are a young boy training to be a knight. Write to your best friend about your daily tasks, e.g. serving your master (a knight), polishing armour, horse-riding, the weapons you use, etc.
2. Discuss the roles of Diarmuid MacMurrough and Strongbow in the planning of the Norman invasion of Ireland. Explain, in your own words, the contribution of these two historical figures.
3. Read Chaucer's description of a knight (contemporary account on photocopiable page 95). Analyse the various elements that build up the picture and discuss them with a partner/ the class.
4. Compare and contrast the food eaten in Norman times with the food eaten today.
5. Examine some of the factors that encouraged the Normans to adapt to several aspects of Irish life.

Differentiation – Less Challenging

1. Retell the story of Aoife/a cook in a Norman castle/the High King of Ireland in your own words.
2. Pair work: Examine the designs of some coats of arms. Discuss what you like/dislike about them.
3. Draw a picture of a scene from Norman times that appeals to you.

Related Websites

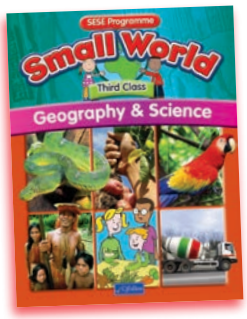
1. http://downloads.bbc.co.uk/history/handsonhistory/HOH_Feasting_activities.pdf
2. http://downloads.bbc.co.uk/history/handsonhistory/HOH_Castle_activities.pdf
3. http://downloads.bbc.co.uk/history/handsonhistory/HOH_castle_eye_spy.pdf
4. http://downloads.bbc.co.uk/history/handsonhistory/HOH_Tapestry_activities.pdf
5. http://downloads.bbc.co.uk/history/handsonhistory/HOH_Churches_eye_spy.pdf
6. http://downloads.bbc.co.uk/history/handsonhistory/HOH_Battle_of_Hastings_Game.pdf
7. http://downloads.bbc.co.uk/history/handsonhistory/normans_reading.pdf

All of the above are downloadable activities based on the Normans from www.bbc.co.uk/history/forkids/. Activities: 1. feasting, 2. castles, 3. castles, 4. tapestry, 5. churches, 6. the Battle of Hastings, 7. reading list on the Normans for children

www.spartacus.schoolnet.co.uk/MEDknights.htm Information about Norman knights

Linkage: **Strand:** Local Studies, **Strand Unit:** My Locality Through the Ages – Buildings that remain from Norman times may be viewed and studied locally.

Integration: **Science:** *Small World Geography & Science* Unit 17: Heat – Food was often cold when it was carried from the kitchen to the dining hall in Norman times. Compare the insulating properties of various materials used to hold hot food/liquids **Literacy:** Reading the text and drawing up comparative analyses under different headings, e.g. buildings, food with present times, and presenting findings to the class **Visual Arts:** Design your own coat of arms for your county/school/family.



Answers – Textbook

Page 69: A. 1. 1169 **2.** 1170 3. Richard de Clare **4.** They fought on horseback, their saddles were fitted with stirrups, and archers walked behind them and protected them with bows and arrows. **5.** French **B. 1.** Ireland **2.** rifle **3.** daughter **4.** metal

Answers – Activity Book

Page 26: C. mail – protective coat made from thousands of linked metal rings; motte and bailey – defensive structure made from earth and timber or stone; drawbridge – bridge that can be raised or lowered over a moat; dungeon – lowest level of a castle, where prisoners were kept; goblet – wine glass made from metal; minstrels – musicians; battlements – area at the top of a castle, used for keeping lookout

D. ✓ : celebrate Hallowe'en, wear leggings, eat porridge, play hide and seek, play chess, play hurling; **X**: drink from goblets, wear coats of mail, put people in dungeons, hang clothes in a garderobe, be entertained by minstrels, go barefoot

Page 27: A. 1. They rode horses. **2.** The soldiers on foot are using bows and arrows. **3.** knights **4.** archers **5.** **(a)** coat of mail **(b)** It protected their bodies. ✗ . battle-axe, sword, lance, shield, bow and arrow **7.** They have saddles fitted with stirrups to keep their feet secure.

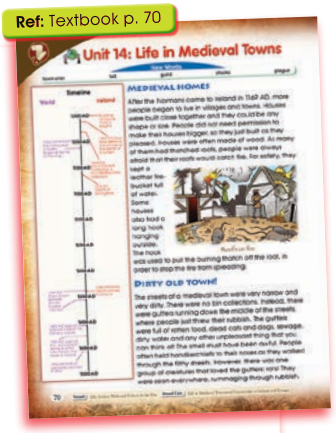
Page 28: B. 2. They dug a large trench. The soil from the trench was piled up to make a large hill, or mound, which they called a 'motte'. On top of the motte, they built a wooden or stone tower called a 'keep'. Then they built a wooden wall around the whole structure. **3.** If the bailey was attacked, the Normans could retreat to the keep. **4.** approx 18 **5.** nine **6.** over a drawbridge and through the gates

Unit 14: Life in Medieval Towns

(Optional/Alternative Unit)

Strand: Society, Work and Culture in the Past **Strand Unit:** Life in Medieval Towns and Countryside in Ireland

Objectives



The child should be enabled to:

- Become familiar with aspects of the lives of people who lived in medieval times in Ireland and Europe, e.g. food, work, leisure and pastimes.
- Become familiar with evidence of the lives of people from medieval times that may be found locally.
- Record the place of people from medieval times on appropriate timelines.
- Become familiar with important events in the history of the locality, e.g. the foundation of a village, town, city with town walls/gates.
- Compare the building practices of people in medieval times with the development of the built environment in recent times.
- Study aspects of technological and scientific developments, e.g. the printed word and development of trades, over a long period of time.

New Words

town crier | toll | guild | stocks | plague

Lesson Kernel

The threads of this unit are as follows:

Fethard Village Walls, Tipperary

- After the arrival of the Normans, more people began to live in towns and villages. There were no rules or laws about building. Many houses were built of wood and had thatched roofs, so the threat of fire was always present.
- There are many traces of medieval times all around Ireland. Town walls and gates, and the names of streets provide clues as to how life was lived in the past. Taxes were collected at the town gates.
- Small shops sold goods that were made by their owners, e.g. knives, gloves, shoes, etc.
- Medieval fairs were very popular and people travelled from the surrounding countryside to enjoy themselves and buy goods that they needed.
- A variety of entertainments went on at the fair, from sword swallowing to miracle plays.
- The invention of the printing press was the major event to take place in medieval times.
- The plague, or Black Death, killed half the population of Europe in the middle of the fourteenth century. It spread very quickly because medieval towns and cities were unhygienic and overcrowded. It caused great hardship and devastation.

Skills

- **Using evidence:** Using a number of sources to create a broader picture of the history of life in the Middle Ages, such as documents, photographs, objects, etc.
- **Cause and effect:** Discussing the reasons for the spread of the plague and the effect this had on the way of life for people in the Middle Ages
- **Empathy:** Looking at the information in the unit from the points of view of medieval town dwellers, e.g. communications, public health and sanitation, and administration of justice
- **Synthesis and communication:** Using evidence and imagination to recreate events from the past, e.g. going to the fair or to see the 'miracle plays'
- **Continuity and change:** Exploring the text to understand those elements of life in the Middle Ages that have changed and those that remain the same

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Create a concept map on the topic, 'Clues from the past'. Use local infrastructure (town walls and gates) where possible, names of streets, and nursery rhymes to stimulate discussion on this topic.
- Make a list of the ways and means used by people in the Middle Ages to communicate. How was news/information spread orally and in written/graphic form?

Assessment of Learning (Finding out what the pupils have learned)

Ask pupils to:

- Identify some places mentioned in the unit where physical/oral evidence remains of the way of life in the Middle Ages.
- Imagine what it felt like to be a boy or girl living in medieval times.
- Draw a sketch of an event you would see at a medieval fair.
- Do project work on some of the trades that were important during the Middle Ages, comparing them to their place in society today.
- Discuss the differences in the way people's health is protected today in comparison with the way it was dealt with in medieval times.

Differentiation – More Challenging

1. Pretend you are a boy or girl from the Middle Ages. You have heard that a big fair is to be held in your town next week. Talk to your best friend about your expectations of what it will be like, e.g. what you will see and do, treats to buy, musicians and jugglers, etc.
2. Take a closer look at the life and work of Gutenberg and his great invention.
3. Compare and contrast security in homes, towns and cities now and during the Middle Ages.
4. Discuss some of the ways in which medicine has developed since medieval times.

Differentiation – Less Challenging

1. Which nursery rhyme explained about the spread of the plague? How did it do this?
2. Place the events listed in the unit on an appropriate timeline.
3. Draw a picture of a scene from medieval times that appeals to you.
4. Pair work: Choose a game from the painting, *Children's Games* by Bruegel. Discuss how to play it.

Related Websites

www.medievaleurope.mrdonn.org/ Information about the Middle Ages

www.kathimitchell.com/middleages.htm Links to resources on the Middle Ages

www.knowitall.org/kidswork/hospital/history/index.html The history of medicine

www.ducksters.com/history/middle_ages_black_death.php
Information about the Black Death

www.historyforkids.org/learn/medieval/games/index.htm
Information about medieval games

Extra Idea

Group/pair work: Imagine you are walking through a medieval town. Make a map of the shops you can see on either side of the street. What is for sale in them? Depending on the trades you choose, write a list of the types of rubbish that will end up in the gutter of that street.

Linkage:

Strand: Local Studies, **Strand Unit:** My Locality Through the Ages – foundation of a village, town or city, e.g. Drogheda, Athenry, Fethard

Integration:

Science Strand: Living Things, **Strand Unit:** Human Life – Examine how bacteria and disease are spread (www.historyforkids.org/learn/science/medicine/plague.htm). **Literacy:** Read stories about people in the Middle Ages, e.g. Brian Boru, William Tell and Joan of Arc. **Visual Arts:** Use strong card, lollipop sticks and glue to construct walls and/or an entrance gate to a medieval town. **Drama:** Dramatise events from the text, e.g. miracle plays, practising a trade.

Answers – Textbook

Page 72: 3. A guild was a club set up by people who made the same kind of craft. Its members usually lived on the same street. They had meetings, where they talked about any problems that they had. Sometimes they collected money to help the widows and children of members who had died.

Page 75: A. 1. Cornmarket was a market area. Windmill Lane was named after a grain mill. **2.** Johann Gutenberg **3.** Drogheda and Dundalk **4.** She was accused of being a witch. **5.** 1347. It was carried by the rats from sailing ships. Humans were bitten by fleas that lived in the rats' fur. **B. 1.** craftsmen **2.** stocks **3.** 1169 **4.** toll

Answers – Activity Book

Page 29: C. town crier – man who rang a bell and called out the latest news in the town; toll – fee to gain entry to a town; guild – club set up by people who work at the same type of craft; stocks – punishment used in medieval times; plague – terrible disease

D. 1. ✓ : Haymarket (market area), Wine Tavern Street (street with a pub), Weavers Street (street where weavers worked and lived), Cornmarket (market area)

Page 30: A. 2. (a) juggling **(b)** in the middle of a market square **(c)** so the visitors to the fair would see him **3. (a)** ✓ : Middle Ages **(b)** style of the clothes and buildings, types of craft **4.** cloth/fabric (and shoes) **5.** shoes

Page 31: A. 1. carpenter **2.** locksmith **3.** fisherman **4.** blacksmith **5.** builder **6.** hatter

Unit 15: Christopher Columbus

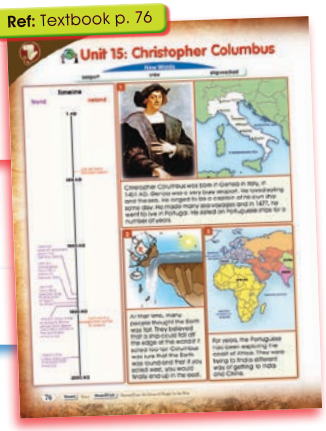
(Optional/Alternative Unit)

Strand: Story **Strand Unit:** Stories from the Lives of People in the Past

Objective

The child should develop an understanding of the early age of discovery.

Ref: Textbook p. 76



New Words

seaport crew shipwrecked

Lesson Kernel

The threads of this unit are as follows:

- Wealth: Explorers were sailing east in search of wealth.
- Adventure: Christopher Columbus believed if he sailed west he would end up in the east. He found it difficult to be taken seriously, as many people believed then that the world was flat.
- Preparation: Finding finance and a crew was difficult, but Columbus succeeded and set sail in 1492 with 90 men and three ships: the *Niña*, the *Pinta* and the *Santa Maria*.

Skills

- **Empathy:** Looking at the information in the unit from the points of view of Columbus and his crew, e.g. running into storms and sailing without sight of land for 32 days
- **Synthesis and communication:** Using evidence and imagination to recreate events from the past, e.g. meeting the islanders of the West Indies
- **Continuity and change:** Exploring the text to understand those elements of life in Columbus's time that have changed and those that remain the same

Christopher Columbus

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what the pupils already know about Columbus. Have they heard about him before? What do they know about this period in history? What do they wish to find out?

Discuss:

- What does an explorer do? What do children do when they explore?
- Spain and Portugal were key countries in the age of exploration. What do we know about these countries? Has anyone been to either of them?
- What have we learned about another great explorer, Saint Brendan? What differences might there be in the means of travel used by Saint Brendan and by Columbus?

Assessment of Learning (Finding out what the pupils have learned)

Ask pupils to:

- Identify some of the other places mentioned in the story.
- Empathise with the islanders whom Columbus met in the Bahamas.
- Order and sequence the events of the story.
- Sketch life for Columbus in the 1400s and 1500s.

Differentiation – More Challenging

1. Columbus and his crew reached the West Indies. Write about their sighting of land and their experiences once they went ashore.
2. Ferdinand Magellan was another explorer. Research and report on how he differed from Columbus in his views and methods.
3. Find out about Columbus Day on October 2nd and write a report.
4. Imagine that you are a member of Columbus's crew. You were living in a small fishing village in Spain when you heard about the voyage that Columbus was about to undertake. Why did you want to go? Why did he pick you to be part of his crew?
5. Write about what was happening in Ireland at this time. Remember: This was during the Middle Ages.

Differentiation – Less Challenging

1. Many people at the time thought that the world was flat. Paint a picture of a boat falling off the edge of the world!
2. Did you ever wonder what Columbus and his crew had to eat during all those days at sea? (Hint: It wasn't always fish!) See if you can find out what he and the crew ate.

Background Information for the Teacher

1. The menu for the crew consisted of water, vinegar, wine, olive oil, molasses, cheese, honey, raisins, rice, garlic, almonds, sea biscuits, dry legumes such as chickpeas, lentils and beans, salted and barrelled sardines, anchovies, dry salted cod, pickled or salted meats (beef and pork) and salted flour.
2. Food, mostly boiled, was served in large wooden bowls. It consisted of poorly cooked meat with bones in it. The sailors picked it with their fingers, as they had no forks or spoons. Larger pieces of meat were cut with a knife that each sailor carried. Fish was eaten most often. On calm days, the crew would fish and then cook their catch.

Related Websites

http://video.nationalgeographic.com/video/kids/history-kids/christopher-columbus-kids/
Video about Columbus

www.bbc.co.uk/schools/primaryhistory/famouspeople/christopher_columbus/
Information and quiz about Columbus

Extra Idea

Dreamcatchers are used by Native Americans to catch bad dreams.

Design and Make: A Dreamcatcher

You will need: A flexible twig about 30 cm long (you could soak it in warm water to make it more flexible), 10 cm of thin wire, 1 m of string, beads with large holes, a few feathers

Method:

1. Make a hoop with the twig and tie the piece of wire around the overlapping ends of the twig.
2. Tie one end of the string to the hoop. Put a few beads onto the string and wrap the string around the other side of the hoop.
3. Put a few more beads on the string and then wrap the string around the far side of the hoop. Repeat until you have an interesting design.
4. Tie a short length of string on the hoop. Put a bead or two on it and then tie a feather onto the end. Repeat – two or three hanging feather strings will look nice.
5. Hang the dreamcatcher near your bed!

Linkage: **Geography Strand:** Human Environments, **Strand Unit:** People and Other Lands

Geography Strand: Natural Environments, **Strand Unit:** Weather, Climate and Atmosphere

Geography Skills: Using pictures, maps and globes – On a map of the world, plot a course due east from Spain to Africa and China. Plot a course due west from Spain to the West Indies. Compare the routes.

Integration:

Science: Find out more about oceans at www.tryscience.org/curiousDN111253309.html.

Numeracy: Work out the periods of time between the dates given for Columbus on the timeline, e.g. from his birth to when he left for Portugal, and from when he sought help from the King and Queen of Spain in 1484 to when he set sail from Spain in 1492.

Visual Arts: Make a storyboard illustrating all of the events in the story, including the people mentioned.

Drama: Write the dialogue between Columbus and the King and Queen of Spain in which Columbus is looking for funding for his voyage. Act out the drama.

Answers – Textbook

Page 79: A. 1. Genoa **2.** the King and Queen of Spain **3.** the *Niña*, the *Pinta* and the *Santa Maria* **4.** gold and other riches **5.** Most sailors were afraid of falling off the edge of the world, because they believed the world was flat.

B. 1. five days **2.** land **3.** 1451 AD **4.** the Bahamas

Unit 16: Transport

(Optional/Alternative Unit)

Strand: Continuity and Change Over Time **Strand Unit:** Transport

Objectives

Ref: Textbook p. 80

The child should be enabled to:

- Become familiar with and study technological and scientific developments over time.
- Identify items of change and continuity in the line of development.
- Identify some of the factors that have caused or prevented change.
- Examine changes and examples of continuity in relation to transport in the locality.
- Refer to and use appropriate timelines.
- Become familiar with important events in the history of the locality, e.g. currach racing, Galway Hooker Festival, Tall Ships Festival, local monuments and/or events that mark transport innovation, e.g. canal/coach stop/railway/airport.
- Compare modes of transport used in the past with those used in modern times.

New Words

horsepower	penny-farthing	Tube	Métro	maglev	currach
Galway hooker	coffin ship	cargo	DART	Luas	

Lesson Kernel

The threads of this unit are as follows:

- From earliest times, people walked when they wanted to travel from one place to another. They transported goods by carrying them.
- The invention of the wheel was one of the most important advances in the history of transport.
- The domestication of animals allowed for easier transportation of goods. Horses were particularly important in this regard. The power of a car engine is measured in horsepower to this day.

Steam engine

- Rafts and hollowed-out tree trunks were the first vessels to be used to cross water.
- Wind power and sails have been used for hundreds of years in powering ships.
- Science and technology have been very important in the development of transport vehicles. The invention of the steam engine resulted in the development of trains and steam ships.
- Air travel began with hot-air balloons. Aeroplanes and helicopters have followed.
- Space travel allows for the exploration of the Earth, the moon and various planets.

Skills

- **Time and chronology:** Recording information about developments in transport using a timeline, and understanding and using date conventions, e.g. BC
- **Cause and effect:** Discussing the reasons for innovation in transport, e.g. wind and steam power, and the effect these developments had on modes of travel and transport
- **Empathy:** Looking at the information in the unit from the point of view of the difficulties in travel experienced by men, women and children in the past, e.g. leaving family and friends to travel on the *Jeannie Johnston* to a new land and life
- **Synthesis and communication:** Using evidence and imagination to recreate events from the past, e.g. Amy Johnson preparing for her solo flight to Australia
- **Continuity and change:** Exploring the text to understand in which ways and why transport has changed from the time of the first dug-out canoes, and the ways in which it remains the same today

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what the pupils already know about transport used in the past and at the present time.
- Make a list of the various ways and means by which people and goods can be transported. What forms of transport are used? How are they powered? What materials are used to make them?
- Use an image of an old sailing vessel/aeroplane/early car to stimulate discussion. What materials were used in its construction? How was it powered? How fast could it travel? Was it comfortable to travel in? How big a crew would be needed to operate it?

Assessment of Learning (Finding out what the pupils have learned)

- How many counties/countries are mentioned in the text? Using a map of Ireland/the world, find the location of these counties/countries.

Ask pupils to:

- Describe what you think it would feel like to travel in (1) a covered wagon, (2) an old sailing ship and (3) a helicopter.
- Draw a timeline to show the sequence of events that happened from the time that the wheel was invented to the first petrol-driven car.
- Draw a sketch of a form of transport used for (1) land, (2) sea, and (3) air travel.
- Describe the preparations the driver of one of the first cars would have had to make before setting off on a journey.

Differentiation – More Challenging

1. Pair work: Pretend you are one of the people chosen to go in the first ever hot-air balloon trip. Talk to your partner about your feelings, e.g. excitement, anxiety, fear of heights, will the balloon burst/fly away? etc.
2. Do a mini-project on an aspect of land, sea or air travel that is of interest to you.
3. Find out about how people travelled when your parents/grandparents were young. Make a presentation to your class.

Differentiation – Less Challenging

1. Pair work: Examine the designs used in old and new cars or aeroplanes. Discuss what you like/dislike about them.
2. Draw a picture of some aspect of land, sea or air travel that appeals to you.

Related Websites

www.youtube.com/watch?v=svFA-m62iks
Video showing the operation of a steam engine, set to music

www.youtube.com/watch?v=nvB1jLld1W0 (from 5:06) Video about Viking ships

www.transport-pf.or.jp/english/nani/02_mukashi.html Transport in the past

www.scoilnet.ie/Quiz.aspx?id=628 Transport quiz

Linkage: **Strand:** Local Studies, **Strand Unit:** My Locality Through the Ages – There may be traditions to do with land, sea or air travel in your locality. Find out what you can about this by talking to local people who may have information, taking part in celebratory events and visiting your library.

Integration: **Science Strand:** Energy and Forces, **Strand Unit:** Forces – Hot air rises in a hot-air balloon. We can prove that this happens by doing the investigation below.

Investigate: Hot Air Rises

You will need: A plastic bag from a drycleaner, a circular piece of card 15–20 cm in diameter, scissors, tape, a vacuum cleaner

Method:

1. Make sure there are no holes in the plastic bag. Seal the top hole in the bag with tape.
2. Draw a circle on the inside of the circular piece of card, about 1 cm from the outer edge.
3. Cut along the line you have drawn so that you end up with a ring of card.
4. Tape the ring of card to the end of the plastic bag.
5. Fill the bag with warm air from the vacuum cleaner. Watch as the bag rises.

Literacy: Poetry – Read 'Sea Fever' by John Masefield and, for contrast, the 'Wreck of the Hesperus' by H.W. Longfellow.

Music: Listen to the rippling opening bars of *Le Mer* by Claude Debussy and, for contrast, the rolling waves in 'The Sea and Sinbad's Ship' from *Scheherazade* by Rimsky-Korsakov.

Visual Arts: Use fabric and fibre to construct an early aeroplane or currach. Cardboard, cloth, string and/or modelling clay could be used for a class project to make a large version of a Galway hooker.

Drama: Dramatise events from the text, e.g. the Wright Brothers' first attempt to fly, taking part in a currach race, piloting a rescue helicopter.

Gaeilge: Learn 'Óró mo Bháidín', a traditional song about a currach, to explore the language used for the sea and sailing.

Answers – Textbook

Page 85: A. 1. 1834 AD **2.** coal **3.** paper **4.** Watt, 1776 **5.** 1919

B. 1. 2000 BC **2.** helicopters **3.** speed **4.** Charles Lindberg

Answers – Activity Book

Page 34: C. horsepower – measurement of the power of a car's engine; cargo – goods being transported from one place to another; penny-farthing – early bicycle with one large and one small wheel; Tube – underground train in London; Métro – underground train in Paris; maglev – train held onto tracks by magnets; currach – boat made from wood and canvas and coated with tar; Galway hooker – sailing boat originally used for fishing and carrying turf; coffin ship – unsafe transatlantic sailing ship in the 1800s; DART – Dublin Area Rapid Transit (train); Luas – modern tram system operating in Dublin

Page 35: B. Land: Métro, mountain bike, tram, car, motor bike, steam engine train
Water: currach, hovercraft, steamship, seaplane, canal barge, canoe
Air: helicopter, seaplane, jumbo jet, hot air balloon

C. 1. You could sail along the Suez Canal. **2.** You would have sailed all the way around Africa.
3. (a) 1869 **(b)** Ferdinand de Lesseps

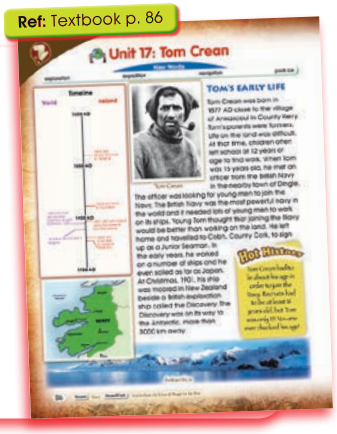
Unit 17: Tom Crean

(Optional/Alternative Unit)

Strand: Story **Strand Unit:** Stories from Lives of People in the Past

Objectives

Ref: Textbook p. 86



The child should be enabled to:

- Compare the life of Tom Crean with his/her own life and with the lives of other explorers in the past.
- Discuss the chronology of events in the story of the lives of the Antarctic explorers.
- Discuss the actions and feelings of people in challenging situations.
- Explore the idea of working on the building of a base camp.
- Relate the story of the life of an ordinary sailor on the journey.

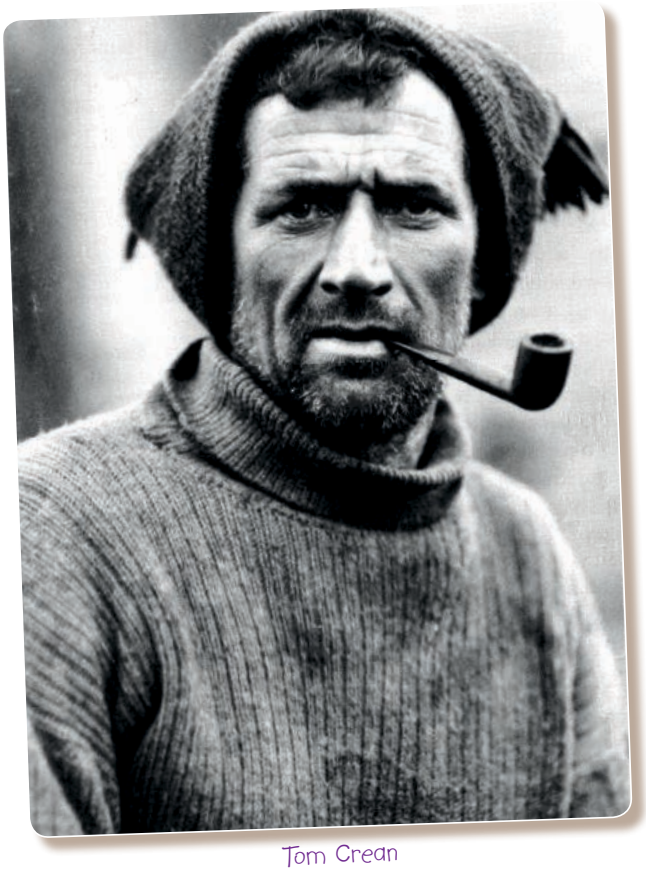
New Words

exploration expedition navigation pack ice

Lesson Kernel

The threads of this unit are as follows:

- What was life like in nineteenth-century Ireland?
- The story of Tom Crean tells us a great deal about what life was like years ago.
- The lives of sailors were closely related to the captains of ships.
- Expeditions were possible in certain temperatures.
- The ship's cargo contained all the requirements for the journey.
- The lives of children of wealthy families were different from the lives of children of ordinary families.



Tom Crean

Skills

- **Time and chronology:** Placing the lives of the explorers on a timeline
- **Cause and effect:** Discussing the effect that the expeditions to the Antarctic had on the lives of the explorers, e.g. Captain Scott
- **Empathy:** Looking at the information in the unit from the points of view of the various characters, e.g. Tom Crean and Ernest Shackleton
- **Synthesis and communication:** Using evidence and imagination to recreate elements from the story of the explorers e.g. the journey to South Georgia
- **Continuity and change:** Discussing how life has changed since the time of the Antarctic explorers, what elements remain the same and what contributions the Antarctic explorers made that are evident in society today

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what the pupils already know about the planning and preparations needed for important journeys.
- On a blank map of Antarctica (photocopiable page 96), show the South Pole, South Georgia and Elephant Island, and discuss the implications of this location.
- Use a photograph of the *Endurance* as a starting point for a discussion. How do you think the ship got stuck? How would the crew react? What might they do to solve the problem?

Ernest Shackleton Statue, London

Assessment of Learning

(Finding out what the pupils have learned)

Ask pupils to:

- Identify some of the other places mentioned in the story.
- Empathise with ordinary sailors on the journey.
- Order and sequence the events of the story.
- Sketch life on South Georgia as it would have looked at the time of Tom Crean's journey.
- Retell the story of Tom Crean in their own words.

Differentiation – More Challenging

1. Pair work: Pretend you are one of the explorers. Write a letter home to your family telling them about your life travelling over the ice.
2. Do a mini-project on another polar explorer of your choice.
3. Find out about islands in the Antarctic and prepare a presentation for your class.

Differentiation – Less Challenging

1. Draw a British Navy ship.
2. Look at the photograph of Tom Crean with the four sledge dog puppies on page 89 of the Textbook. Think of names for each of the four puppies!
3. Find out what kind of clothes you would need to survive the extreme cold of Antarctica.

Related Websites

www.britannica.com/EBchecked/media/34681/Shackletons-ship-the-Endurance-caught-in-an-ice-pack-in Photograph of *Endurance* stuck in pack ice

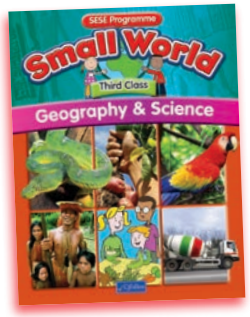
www.rte.ie/tv/tomcrean/index.html Charlie Bird on the trail of Tom Crean

www.scoilnet.ie/explorers_Themepage.shtm
Information and quizzes on Tom Crean and other explorers

Linkage:

Strand: Life, Society, Work and Culture in the Past, **Strand Unit:** Life in the Nineteenth Century – Explore aspects of the life of people in Ireland at the time.

Integration:



Geography Skills: Using pictures, maps and globes – examining maps and finding the places mentioned in the story

Science: *Small World Geography & Science* Unit 19: The Weather – Look at temperature, how it ranges from high to low and its effects.

Drama: Dramatise the scene when the crew realise that the *Endurance* is stuck in the ice. What questions do they begin to ask themselves? How do they decide what to do next?

Answers – Textbook

Page 91: A. 1. 15 **2.** They mended sleeping bags and made sledges. **3.** Roald Amundsen **4.** Alone, he walked about 56 km back to base camp without a compass, sleeping bag or tent, to get help for Edgar Evans. He walked non-stop for 19 hours. **5.** *Endurance* was stuck in the ice and its planks began to expand and buckle.

B. 1. six months **2.** South Pole **3.** penguins **4.** 1877 AD

Answers – Activity Book

Page 37: A. 2. Dec 7, 1914 **3.** *Endurance* trapped **4.** Oct 27, 1915 **5.** *Endurance* sank **6.** April 9, 1916 **7.** Boat journey to South Georgia **8.** May 20, 1916

Unit 18: My Family

(Optional/Alternative Unit)

Strand: Local Studies **Strand Unit:** My Family

Objectives

The child should be enabled to:

- Become familiar with aspects of his/her personal family history or the family history of someone known to him/her, e.g. birth dates of siblings/parents/grandparents.
- Become familiar with evidence of family history through exploration of oral history, photographs and family memorabilia.
- Examine changes and examples of continuity in the lives of parents and grandparents.
- Record events particular to his/her own family on appropriate timelines.
- Become familiar with significant dates/events in the life of the family, e.g. when mother and father married, changed job, or moved house, and family members emigrated/migrated.
- Collect and use a range of simple pieces of historical evidence.
- Present findings using a variety of media and appropriate timelines.

New Words

generation	evidence	documents	birth certificate
registered	artefacts	tradition	family tree

Lesson Kernel

The threads of this unit are as follows:

- From the moment of birth, time moves on, events happen. These events may be recorded in order to be remembered and to show patterns and happenings in our lives.
- Each generation goes through life events. Different generations can help each other in various ways.
- There are various forms of evidence that can be used to build up a reliable picture and give us information as to what may have occurred in our families in the past. This evidence may be oral, pictorial or documentary.
- Family artefacts can provide much information about changes that have occurred over time.
- Each family has its own way of celebrating special occasions like births, marriages and deaths.
- Traditions are passed on and celebrated in communities, counties and countries.
- A record can be compiled of family members by using a diagram known as a family tree.

Skills

- **Time and chronology:** Recording information about one's family or that of another person using a timeline, and understanding and using date conventions, e.g. AD

- **Cause and effect:** Discussing the reasons for, and the effects of, some events and changes in the past, e.g. emigration/migration
- **Empathy:** Looking at the information in the unit from the points of view of parents (and siblings) when a new baby is born
- **Synthesis and communication:** Using evidence and imagination to reconstruct events from the past, e.g. how grandparents travelled to school and the games they played
- **Continuity and change:** Exploring the text to understand those elements of life in the times of older generations that have changed and those that remain the same

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Fill in a KWL chart based on what the pupils already know about the theme of 'My Family'.
- Make a list of the types of evidence that can be used to add to our knowledge of our families.
- Use pictorial evidence of families in different parts of the world with differing cultural traditions to stimulate discussion in relation to defining the notion of family. Can we say that there is only one way to define the notion of family? Explore examples of different combinations and groups that can make up a family.

Assessment of Learning (Finding out what the pupils have learned)

Ask pupils to:

- Identify various items that are used as evidence to build up information on a child's family.
- Ask questions when presented with a piece of evidence.
- Imagine what it felt like to be a boy or girl living in their grandparents' time, e.g. clothes, work and food.
- Draw a timeline to show the sequence of events that happened from the time a child was born to the present day.
- Make a list of three games played by grandparents, parents and children today. Identify those that are the same and those that are different.
- Examine their own names to identify possible original meanings, e.g. Smith and blacksmith, Mac Ghearailt and Fitzgerald, Mac an tSaoir and Freeman, Granville and Grand Ville.

Differentiation – More Challenging

1. You have travelled in a time-machine back to when your grandparents were young. What changes would you find in their lives, e.g. clothes, food, no TV, the work they have to do?
2. Do a mini-project on a member of your family or some local person who appeals to you.
3. Find out about how people cooked when your parents/grandparents were young. Make a presentation to your class.

Differentiation – Less Challenging

1. Pair work: Make a list of all the things you needed as a tiny baby, e.g. food, sleep, a soother, a rattle, love. How many of those things do you need now? What has changed in your life? What has remained the same?
2. Complete the template of the birth certificate on page 39 of the Activity Book. Use your own details or those of an imaginary person.
3. Draw a picture of a special event that took place in your family.

Related Websites

www.census.nationalarchives.ie/ 1901 Census

www.census.nationalarchives.ie/pages/1911/ 1911 Census

www.iol.ie/~batespd/siput/index.html A collection of old photographs

www.archives.state.al.us/activity/actvty18.html Guide to making a family tree

Extra Idea

Have a class debate on the topic: *Families are just as important today as they were in the past.* Do you agree or disagree?

Linkage:

Strand: Local Studies, **Strand Unit:** My Locality Through the Ages – There may be evidence of your family having lived in a particular place for many generations. You may or may not be living there now, but you can find out about it by talking to your parents and extended family and looking at photographs.

Skills: Change and Continuity – Identify changes that have taken place over the generations in your family. This could be in relation to clothes, food, books read, games played, transport, built and natural environment, and jobs. What has remained the same?

Integration:

Geography Strand: Human Environments, **Strand Unit:** People Living and Working in the Local Area – (1) You may have been born in the place where you now live. Find out how many generations of your family have lived there. Who was the first member of your family to come to your locality? Have any members of your family gone to live in other places? Find these places on a map. (2) You may be new to the place where you now live. If this is the case, where did your family originally come from? Find this place on a map. (3) Identify some old and new houses in your area. Find out the approximate age of each. What differences are there in the materials used in these buildings, e.g. stone, brick, wood, cast-iron (gutters), PVC, concrete, pebble-dash, etc? Which materials are more likely to be found on the older/newer houses? What aspects of houses remain the same, regardless of their age?

Science Strand: Living Things, **Strand Unit:** Human Life – healthy eating. Discuss the foods that are considered to be healthy today. Compare the kind of food/diet that children have now with the food that their parents/grandparents had for the main meals of the day.

Music: Learn the lullaby, 'Bog Braon don tSeanduine'. This is interesting, as it refers to the older and younger generations of a family in one song, while helping the baby to get to sleep.

Answers – Textbook

Page 95: A. 1. 1870 **2.** Fossett **4.** time and place of birth, gender, birth-weight and name of the baby

B. 1. photographs **2.** father **3.** 1992 **4.** document

Answers – Activity Book

Page 38: C. generation – people from the same age group; evidence – a reason to believe something; document – piece of paper giving information or evidence; birth certificate – document that tells when and where someone was born; registered – written down officially in a special office; tradition – custom that is passed on from generation to generation; family tree – diagram showing all of the people who belong to one family

Website List for Digging Deeper Activity Sections

Ask pupils to key in the following words in a Google search. They will be brought **directly** to the correct page on each website.

Unit 1: Fionn and the Fiannna (page 9)

To watch a video of the legend of the Salmon of Knowledge, key in the words:
Salmon of Knowledge Ask About Ireland video.

Unit 2: The Stone Age (page 15)

To find out lots more about the Stone Age, key in the words:
Stone Age for Kids or **BBC Stone Age.**

Unit 4: People of the Tigris and Euphrates Rivers (page 27)

To find out lots of interesting facts about Mesopotamia, key in the words:
Ancient Mesopotamia for Kids or **National Geographic Mesopotamia.**

Unit 8: Saint Brendan (page 45)

To find out about the Brendan Boat Craggaunowen Project, key in the words: **Craggaunowen Project.** The site shows the *Brendan*, a reconstruction of the leather-hulled boat reputed to have been sailed by Saint Brendan.

Unit 10: The Wooden Horse Of Troy (page 53)

To find out more about Troy and to see a video of the wooden horse, key in the words:
BBC Wooden Horse of Troy Video or **Ancient Greece for Kids.**

Unit 11: Schools and Education (page 59)

To have some fun with the Ogham Alphabet, key in the words: **Ogham Alphabet Fun**.

Unit 12: King Arthur and Excalibur (page 63)

To try out a quiz on King Arthur, key in the words: **BBC King Arthur Quiz.**

Unit 13: Life in Norman Ireland (page 69)

To find out some really interesting information about the Normans, key in the words:
BBC Normans Kids or **Normans Ask About Ireland** or **Scoilnet Normans.**

Unit 15: Christopher Columbus (page 79)

To try a quiz, watch a video or learn more about Christopher Columbus, key in the words:
BBC Famous People Christopher Columbus or **Video National Geographic Columbus** or **Quiz Scoilnet Christopher Columbus.**

Unit 17: Tom Crean (page 91)

To follow the trail of Tom Crean, key in the words: **RTE Tom Crean Charlie Bird.**

Unit 18: My Family (page 95)

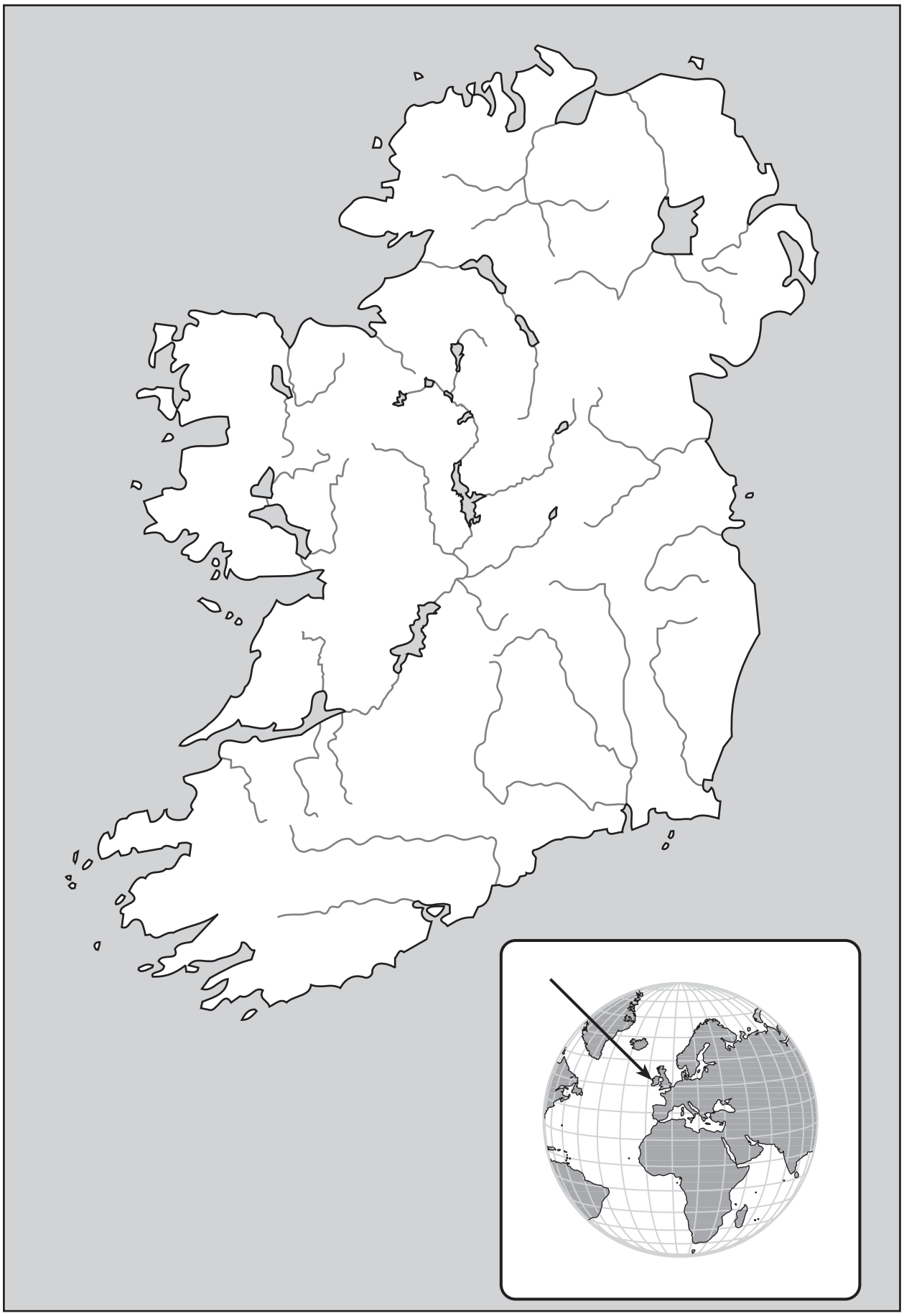
To investigate your ancestors, key in the words: **Census 1901 National Archives.**

Useful History Resources

- Historical novels
- Phone apps, e.g. Dublin Castle Walls App
- History in a Box (replicas of historical objects available from the Teacher's Centres)
- Educational Resource Packs from the National Library of Ireland
- 'A History of Ireland in 100 Objects', a series by Fintan O'Toole, published in the *Irish Times Weekend Review* on Saturday (There is also a book of the series, published by the Royal Academy of Ireland, and an app is available.)
- Trócaire packs
- GAA
- National Museum of Ireland – curriculum-linked workshops, tours and resources
- Australian Embassy Ireland – free Indigenous Resource Kit for schools, containing replicas of artefacts, books, DVDs, CDs, flags, maps and teaching materials
- Websites:
  - www.historyireland.com
  - www.scoil.net
  - www.teachnet.ie
  - www.bbc.co.uk/history/forkids/
  - www.ncte.ie – digital photographs for non-commercial use, i.e. 'creative commons'
  - www.eyewitnesstohistory.com
  - www.dublinculturetrail.ie – virtual tour of Dublin from Dublin Cultural Trail
- National Library of Ireland's Lawrence Photographic Project, where you can compare old and new photographs
- Resources: Use the Teacher's Centres and the TPC (Teacher's Professional Centre), local libraries and the Heritage Council

Map of Ireland's Rivers

Name: Date: Class:

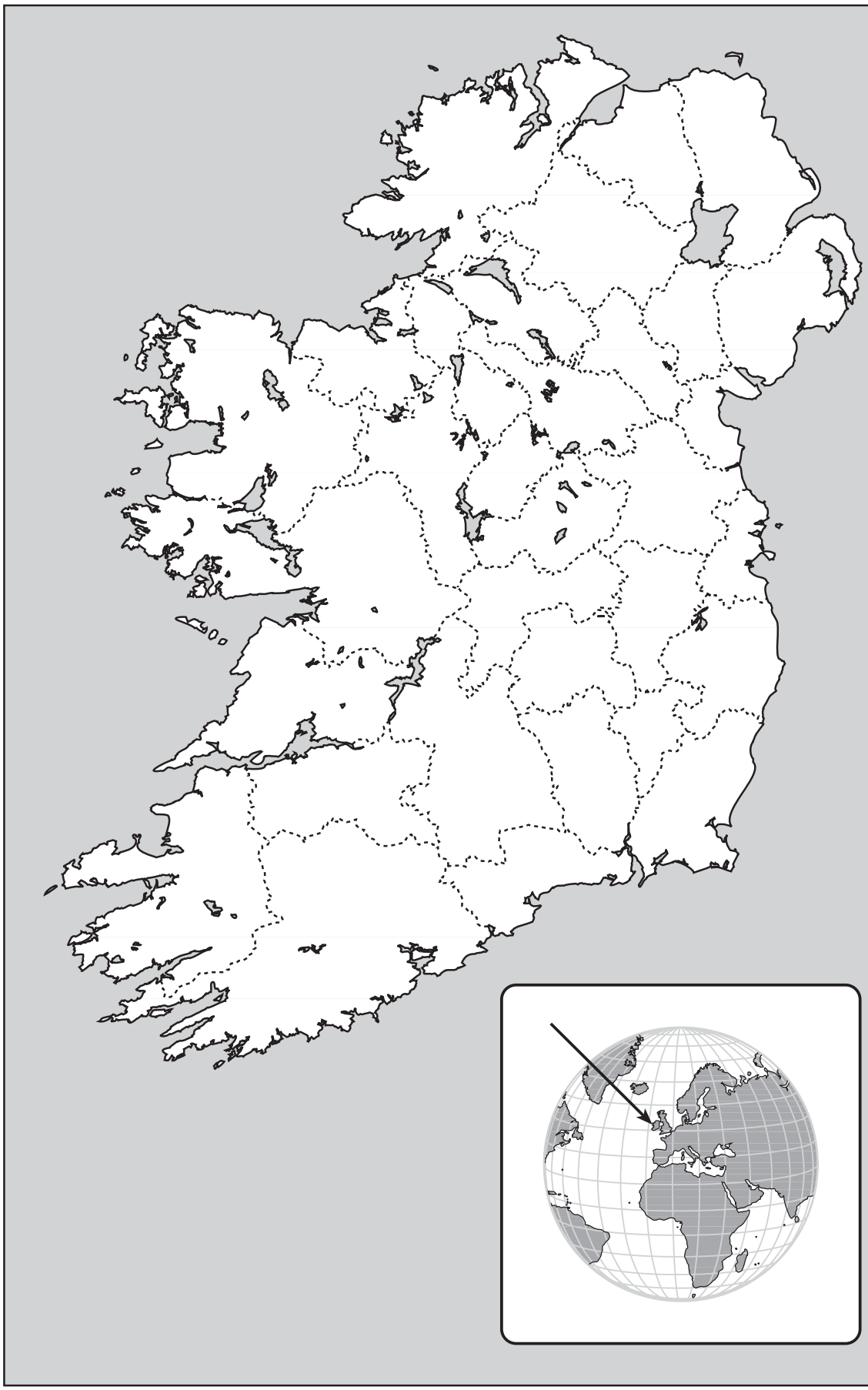


Map of the Middle East

Name: Date: Class:

Map of Ireland's Counties

Name: Date: Class:



Colour the Picture of Saint Brendan

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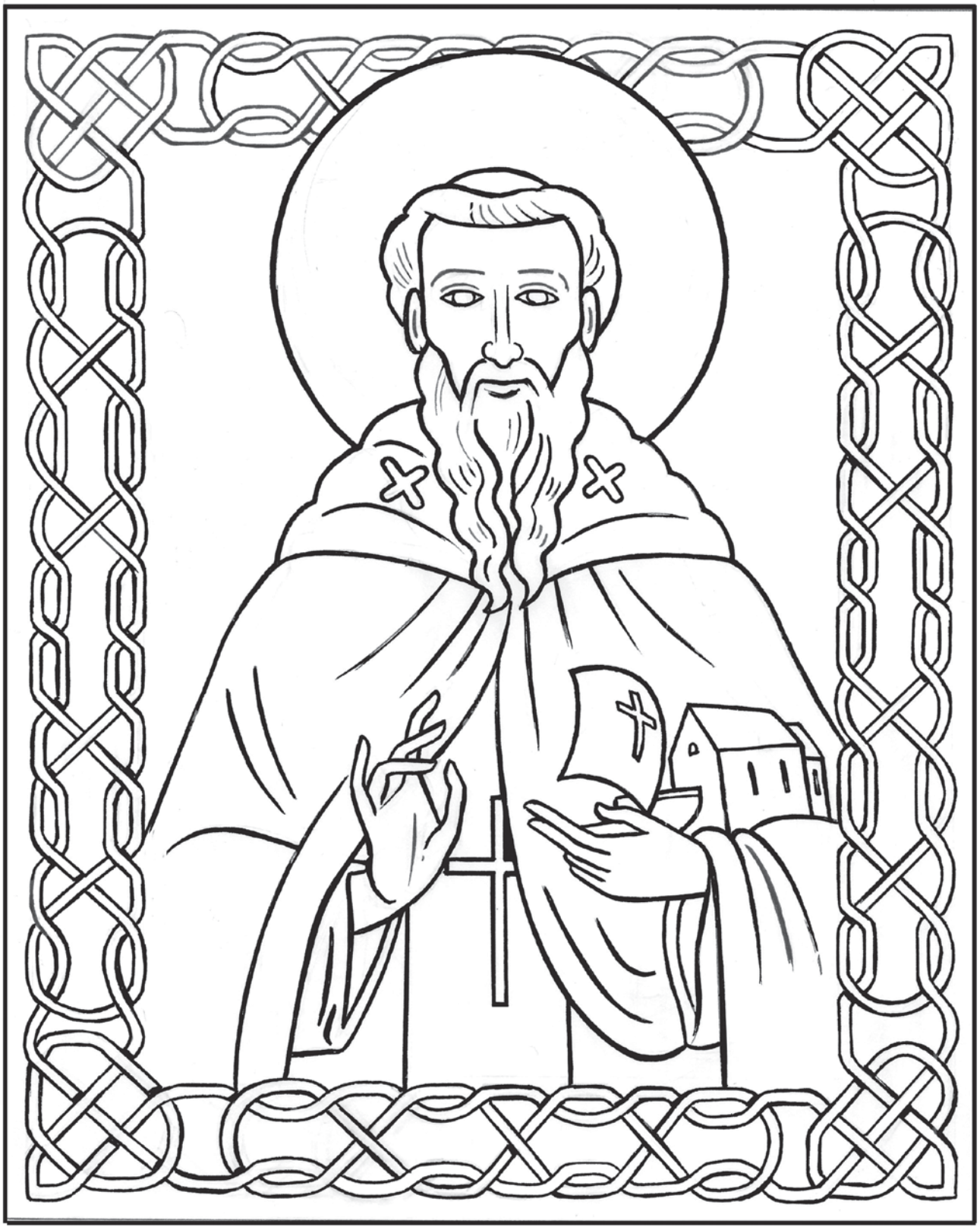


Colour the Picture of an Egyptian Nemes

Name: Date: Class:

Map of Greece and Its Neighbours

Name: Date: Class:

Name: Date: Class:

Na Laetha Saoire

Nach álainn an t-am é an samhradh
Chun spóirt agus scléip' agus grinn,
Ag déanamh caisleán ins an ngaineamh,
Ag tumadh sa mhuir nó sa linn.

Is breá liom an ghrian ag taithneamh
I spéir aoibhinn álainn, Mí Iúil,
'S mé ag spraoi is ag spórt tríd an tuath,
Nó cois mara i m'aonar ag siúl.

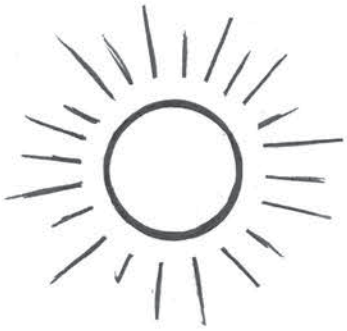
Is breá liom an trá is an gaineamh,
Is breá liom sa mhuir bheith ag snámh,
Is brea liom an oíche bheith fada,
Is saoire mo chroí 'gam gach lá.

Níl aon am chomh maith leis an samhradh,
An Samhradh 'gam féin ar mo thoil.
Is cead agam imeacht is filleadh,
Im rí orm féin as an scoil.

Lionárd Ó hAnnaidh

Éirígí, a Pháistí

Name: Date: Class:



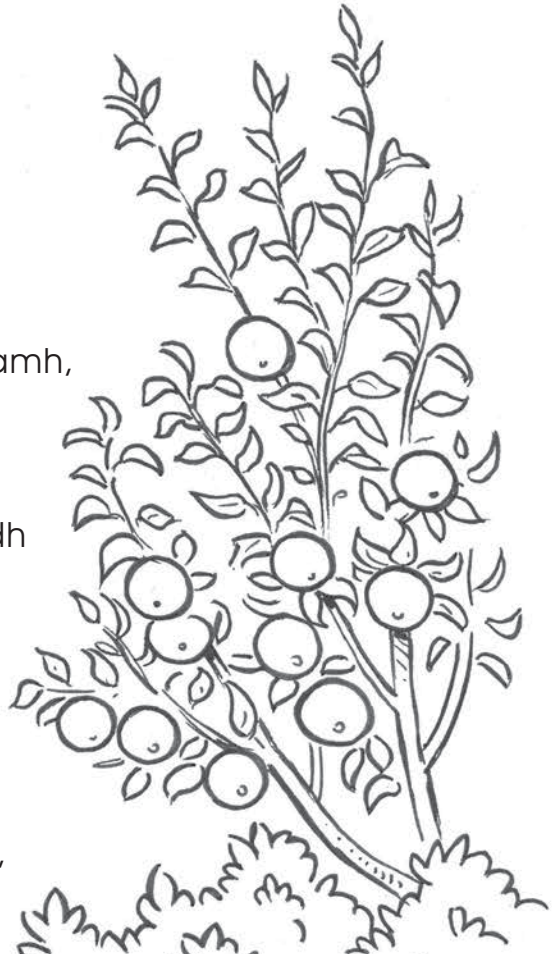
Éirígí, a Pháistí

Éirígí, a pháistí!
Amach linn faoin aer;
Tá an ghrian gheal ag taitneamh,
Níl scamall sa spéir.

Tá gaoth bhog ag séideadh
Thar cnoc agus gleann,
Tá duilleoga ag damhsa
Ar sceach is ar chrann.

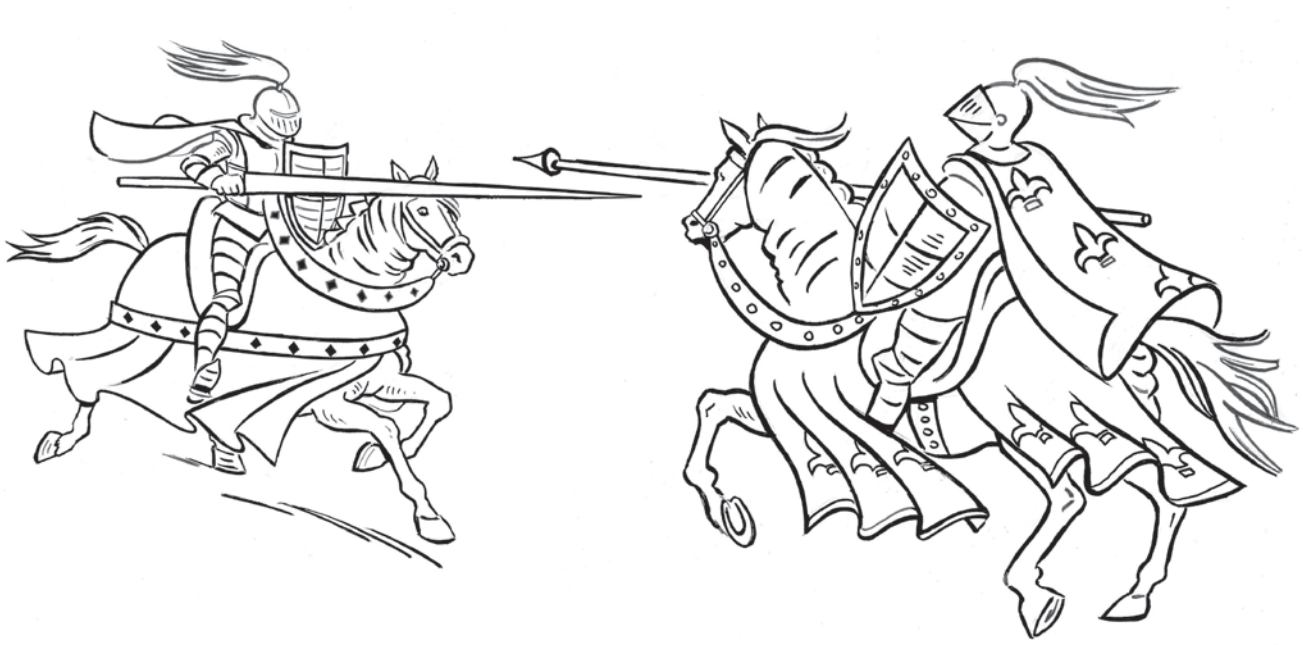
Tá úlla is sméara
Go tiubh ar gach craobh,
Tá bláthanna geala
Ag fás ar gach taobh.

Éirígí, a pháistí!
Amach linn faoin aer
Chun aoibhneas a bhaint
As an áilleacht go léir.



The Knight's Squire

Name: Date: Class:



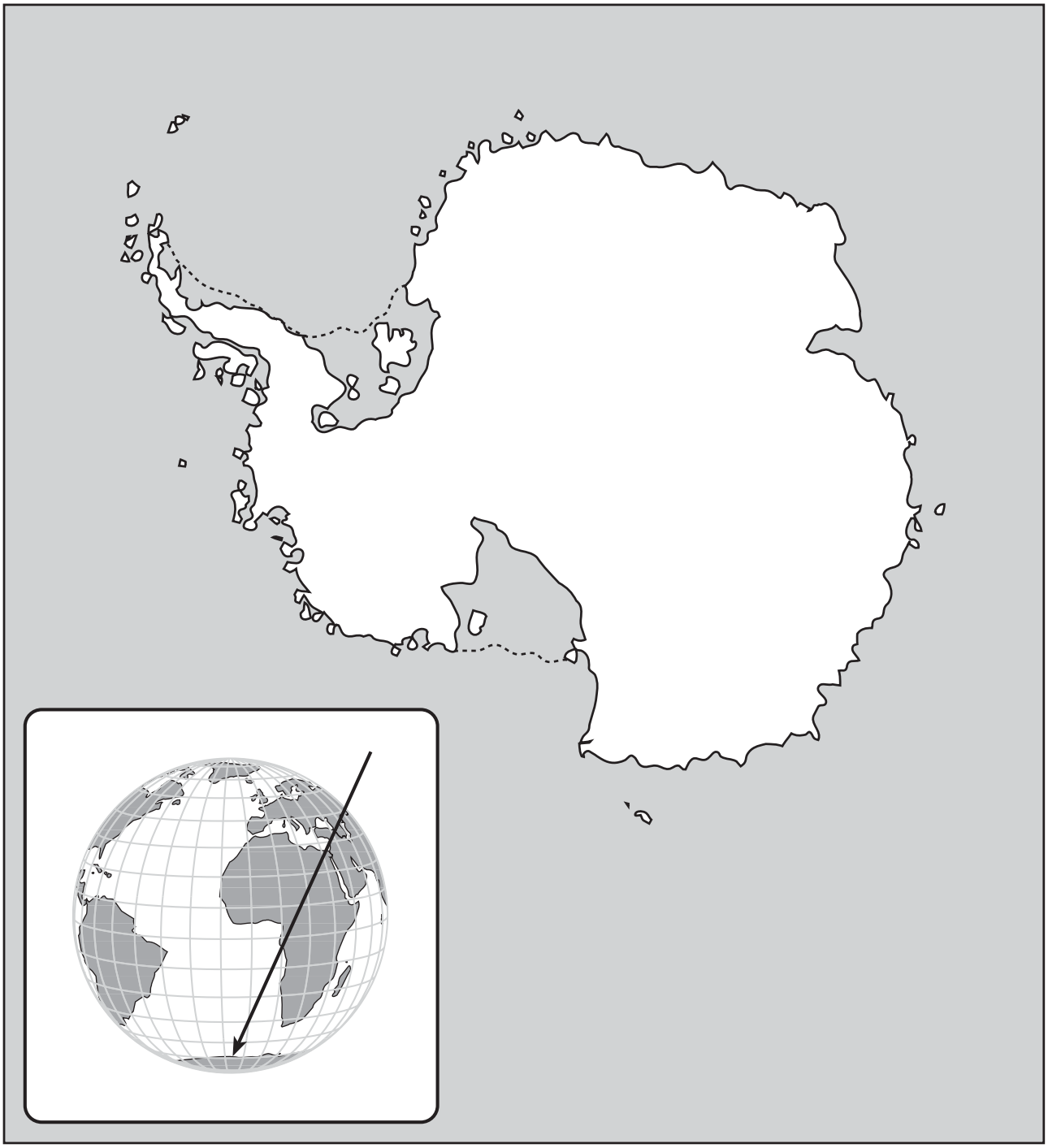
The Knight's Squire

With curly locks, as if they had been pressed.
He was around twenty years of age, I guessed.
In height he was of a moderate length,
With wonderful agility and strength.
He had seen some service with the cavalry
In Flanders and Artois and Picardy...
Short was his gown, his sleeves were long and wide.
He knew the way to sit on a horse and ride.
He knew songs and poems and could recite,
Knew how to joust and dance, to draw and write.

From the Canterbury Tales *by Geoffrey Chaucer*

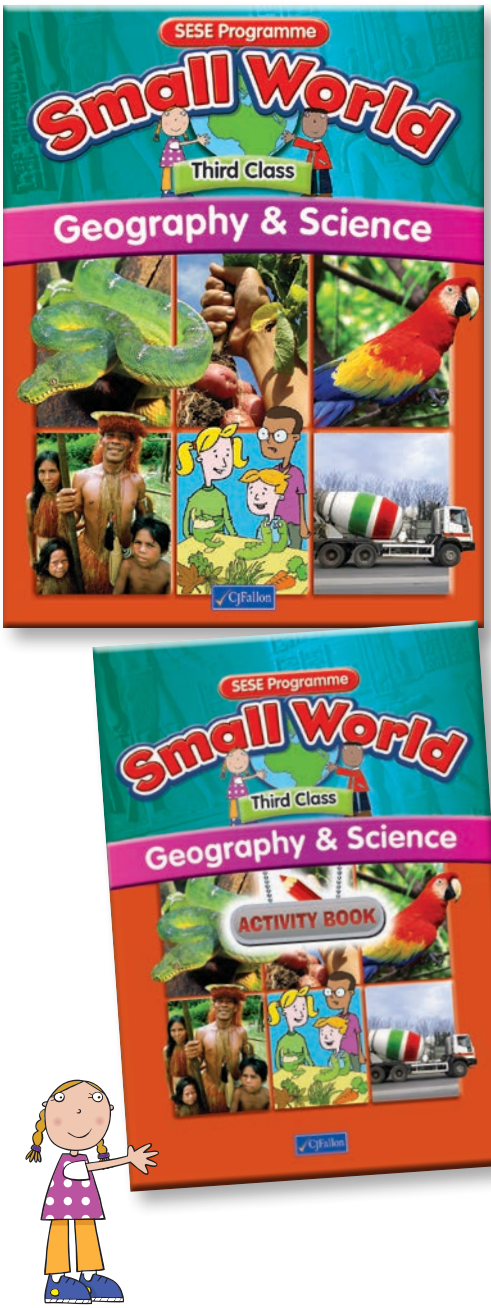
Map of Antarctica

Name: Date: Class:



Teacher's Notes

Geography & Science



Geography & Science – Suggested Yearly Scheme at a Glance

The order in which the units appear in the Textbook was determined on the basis of the literacy level required and the difficulty of the concept. Naturally, the order in which the units are taught will be at the discretion of the teacher.

Month	Unit	Strand, Strand Unit	Content Objectives The child should be enabled to:	Skills – The student will work as a geographer/ scientist in using the following skills:
September	**Unit 1: Animals and Habitats**	**Science:** Living Things, Plants and Animals **Geography:** Natural Environments, The Local Natural Environment	▪ Observe, identify and investigate the animals that live in local environments. ▪ Develop an increasing awareness of animals from wider environments. ▪ Observe and explore some ways in which animal behaviour is influenced by, or adapted to, environmental conditions. ▪ Sort and group living things into sets according to observable features. ▪ Use simple keys to identify common species of animal. ▪ Come to appreciate that animals depend on plants and, indirectly, on the sun for food. ▪ Discuss simple food chains. ▪ Become aware of some of the basic life processes in animals.	▪ Observe the behaviours of animals in Irish habitats (meadow and seashore). ▪ Identify some characteristics of some animals, e.g. eyes on side of the head to act as sentinel… ▪ Investigate the habits of such animals – eating, predation…
	Unit 2: Buildings All Around Me	**Geography:** Human Environments, People Living and Working… (Homes and Other Buildings) **Science:** Environmental Awareness and Care, Science and the Environment	▪ Explore, investigate and come to appreciate the major features of the built environment in the locality and in a contrasting part of Ireland.	▪ Observe buildings in their environment. ▪ Examine pictures of buildings outside their environment. ▪ Discriminate between buildings in which we live and buildings (such as bridges) that have a different purpose.

October	**Unit 3:** **Plants and Habitats**	**Science:** Living Things, Plants and Animals **Geography:** Natural Environments, The Local Natural Environment	▪ Observe, identify and investigate plants that live in local environments. ▪ Develop an increasing awareness of plants from wider environments. ▪ Observe and explore some ways in which plant behaviour is influenced by, or adapted to, environmental conditions. ▪ Sort and group living things into sets according to observable features. ▪ Use simple keys to identify common species of plant. ▪ Understand that plants use light energy from the sun. ▪ Investigate the factors that affect plant growth.	▪ Hypothesise about a seed/plant's need for water, light, heat and soil. ▪ Record the results of experiments on growing seeds in varying conditions. ▪ Investigate plant life in two contrasting environments: the meadow and the seashore.
	Unit 4: **Living Together**	**Geography:** Human Environments, People Living and Working… (Communities) **Science:** Environmental Awareness and Care, Caring for the Environment	▪ Learn about and come to appreciate and respect the people and communities who live and work in the locality and in a contrasting part of Ireland.	▪ Identify people in their community with whom the children interact. ▪ Investigate the role of community groups and individuals.

November	**Unit 5: Life in Blanchardstown**	**Geography:** Human Environments, People Living and Working in a Contrasting Part of Ireland **Science:** Environmental Awareness and Care, Environmental Awareness	▪ Become aware of the natural features in Blanchardstown and their relationship to the lives of people living there. ▪ Learn about and come to appreciate and respect the people and communities who live and work in a suburban part of Ireland. ▪ Explore, investigate and come to appreciate the major features of the built environment of Blanchardstown. ▪ Explore and investigate, especially through practical studies, a small number of the common economic activities of people in Blanchardstown. ▪ Become aware of forms of transport and transport routes in Dublin and its suburbs. ▪ Become familiar with the communication methods available. ▪ Investigate the work of people involved in transport and communications.	▪ Develop some awareness of the distinctive human and natural features of some places in Ireland. ▪ Develop an understanding of the relative location and size of major natural and human features. ▪ Develop some familiarity with, and engage in practical use of, maps and photographs. ▪ Develop an understanding of and use some common map features and conventions. ▪ Make simple maps. ▪ identify major geographical features and find places on the globe.
	Unit 6: Staying in Touch	**Geography:** Human Environments, People Living and Working... (Communications) **Science:** Environmental Awareness and Care, Science and the Environment	▪ Become familiar with the communication methods available. ▪ Investigate the work of people involved in communications.	▪ Examine the development of some communications from word-of-mouth to modern-day methods. ▪ Investigate means of communicating from a distance by constructing a taut line telephone. ▪ List the means of communications that they have at their disposal. ▪ Communicate using means other than voice.

December	**Unit 7:** **Ireland – People and Places**	**Geography:** Human Environments, People Living and Working in a Contrasting Part of Ireland **Science:** Environmental Awareness and Care, Environmental Awareness	▪ Become familiar with the names and locations of some major natural features in the county. ▪ Develop some familiarity with the relationship of these features with each other and with elements of the built environment.	▪ Develop some familiarity with, and engage in practical use of, maps and photographs. ▪ Develop an understanding of, and use, some common map features and conventions. ▪ Make simple maps of home, classroom, school and the immediate environment. ▪ Identify major geographical features and find places on the globe. ▪ Explore and become familiar with some of the distinctive human and natural features of the locality and County Clare. ▪ Develop some awareness of the distinctive human and natural features of some places in Ireland and other parts of the world. ▪ Develop an understanding of the relative location and size of major natural and human features. ▪ Develop some awareness of the names and relative location of some European countries. ▪ Establish and use cardinal compass points. ▪ Use maps to record routes and directions in the locality.
	Unit 8: **Mountains**	**Geography:** Natural Environments, The Local Natural Environment **Science:** Environmental Awareness and Care, Environmental Awareness	▪ Become familiar with the names and locations of some major natural features in the county. ▪ Develop some familiarity with the relationship of these features with each other and with elements of the built environment such as roads, bridges, towns and cities.	▪ Develop awareness of distinctive human and natural features of the locality, county, country and the world. ▪ Develop an understanding of the relative location and size of major natural features. ▪ Engage in practical use of maps. ▪ Ask questions about natural and human features and processes in the environment. ▪ Observe, discuss and describe natural and human features and processes in the environment. ▪ Recognise patterns and relationships in the environment.

January	**Unit 9: Britain**	**Geography:** Human Environments, People and Other Lands	▪ Study some aspects of the environment and the lives of people in Britain. ▪ Develop an awareness of the interdependence of the lives of people in Britain and people in Ireland. ▪ Begin to develop a sense of belonging to local, county, national, European and global communities.	▪ Develop some awareness of the distinctive human and natural features of some places in Britain. ▪ Develop an understanding of the relative location and size of major natural and human features in Britain. ▪ Develop some awareness of the names and relative location of some of Britain's European neighbours. ▪ Develop some familiarity with, and engage in the practical use of, maps and photographs of different scales and purposes. ▪ Develop an understanding of, and use, some common map features and conventions, e.g. symbols for services. ▪ Identify major geographical features and find places on the globe.
	Unit 10: Science and the World Around Us	**Science:** Environmental Awareness and Care, Science and the Environment	▪ Begin to explore and appreciate the applications of science and technology in familiar contexts. ▪ Identify some ways in which science and technology contribute positively to society.	▪ Ask questions about events in the immediate environment and their relationships. ▪ Ask questions that will identify problems to be solved. ▪ Ask questions that will help in drawing conclusions and interpreting information. ▪ Collect information and data from a variety of sources. ▪ Interpret information and offer explanations. ▪ Draw conclusions from suitable aspects of the evidence collected. ▪ Record and present findings and conclusions using a variety of methods: oral and written accounts, charts, graphs and diagrams, presentations using information and communication technologies. ▪ Identify major geographical features and find places on the globe.

February	**Unit 11: Egypt**	**Geography:** Human Environments, People and Other Lands	▪ Study some aspects of the environments and lives of people in one location in another part of the world. ▪ Develop an awareness of the interdependence of these people and the people in Ireland. ▪ Begin to develop a sense of belonging to local, county, national, European and global communities.	▪ Develop some awareness of the distinctive human and natural features in Egypt. ▪ Develop some awareness of the relative location of Egypt. ▪ Develop some familiarity with, and engage in practical use of, maps. ▪ Ask questions about natural and human features and processes in Egypt and their interrelationships. ▪ Observe, discuss and describe natural and human features and processes in Egypt.
	Unit 12: Rainforests	**Geography:** Environmental Awareness and Care, Environmental Awareness **Science:** Environmental Awareness and Care, Environmental Awareness	▪ Identify the interrelationships of living and non-living elements of local and other environments. ▪ Develop some awareness of the types of environment which exist in Ireland and other parts of the world. ▪ Recognise how the actions of people may have an impact on environments.	▪ Develop some awareness of the distinctive human and natural features of some places in Ireland and other parts of the world. ▪ Identify major geographical features and find places on the globe. ▪ Explore the different layers of the rainforest.

March	**Unit 13: Sound**	**Science:** Energy and Forces, Sound	▪ Learn that sound is a form of energy. ▪ Recognise and identify a variety of sounds in the environment. ▪ Understand and explore how different sounds may be made by making a variety of materials vibrate. ▪ Design and make a range of simple string instruments using an increasing variety of tools and materials. ▪ Explore the fact that sound travels through materials.	▪ Carry out a range of investigations to develop a hands-on knowledge of sound. ▪ Be encouraged to ask questions about sound. ▪ Observe and describe processes during investigations. ▪ Offer suggestions based on observations about the likely results of investigations. ▪ Design, plan and carry out simple investigations. ▪ Sort and group objects related to recorded sound into chronological order. ▪ Explore a range of everyday objects and how they work. ▪ Recognise a need to adapt or change an object, and work collaboratively to create a design proposal. ▪ Recognise that modifications to the plan may have to be made throughout the task.
	Unit 14: The Human Body	**Science:** Living Things, Human Life	▪ Explore and investigate how people move. ▪ Develop an awareness of the importance of food for energy and growth.	▪ Interpret information and offer explanations. ▪ Draw conclusions from suitable aspects of the evidence collected. ▪ Record and present findings and conclusions using a variety of methods: oral and written accounts, charts, graphs and diagrams, presentations using information and communication technologies.

April	**Unit 15: Electricity**	**Science:** Energy and Forces, Magnetism and Electricity **Geography:** Human Environments, People Living and Working in the Local Area	▪ Explore the effects of static electricity. ▪ Observe the effects of static electricity on everyday objects in the environment. ▪ Learn about electrical energy. ▪ Investigate current electricity by constructing simple circuits. ▪ Examine and group materials as conductors (those that conduct electricity) and insulators (those that do not conduct electricity). ▪ Become aware of the dangers of electricity.	▪ Carry out a range of investigations to develop a hands-on knowledge of electricity. ▪ Be encouraged to ask questions about electricity. ▪ Observe and describe processes during investigations. ▪ Offer suggestions based on observations about the likely results of investigations. ▪ Design, plan and carry out simple investigations. ▪ Sort and group objects into categories. ▪ Record the results of the insulator/conductor investigation on a table in the Activity Book. ▪ Explore a range of everyday objects and how they work. ▪ Recognise a need to adapt or change an object and work collaboratively to create a design proposal. ▪ Develop craft-handling skills and techniques. ▪ Recognise that modifications to the plan may have to be made throughout the task.
	Unit 16: The Sun	**Geography:** Natural Environments, Planet Earth in Space **Science:** Energy and Forces, Heat	▪ Observe, describe and record the positions of the sun when rising and setting and the changing lengths of day and night during the seasons. ▪ Investigate shadows, directions and sunlight. ▪ Understand the importance of sunlight for plants and animals. ▪ Become aware of the dangers of sunlight to skin and eyes.	▪ Develop some awareness of the distinctive human and natural features in the world. ▪ Develop an understanding of the relative location and size of major natural features. ▪ Develop some familiarity with, and engage in practical use of, the map of the Solar System. ▪ Ask questions about natural and human features and processes in the environment. ▪ Observe, discuss and describe natural and human features and processes in the environment. ▪ Offer suggestions based on observations about the likely results of an investigation. ▪ Carry out simple investigations and collect information from a variety of sources. ▪ Look for and recognise patterns and relationships in the environment.

May	**Unit 17: Heat**	**Science:** Energy and Forces/ Materials, Heat (linked to Materials and Change) **Geography:** Natural Environments, Weather, Climate and Atmosphere	▪ Learn that heat can be transferred. ▪ Recognise that temperature is a measurement of how hot something is. ▪ Measure changes in temperature using a thermometer. ▪ Measure and compare temperature in different places in the classroom, school and environment and explore the reasons for variations. ▪ Understand that the sun is Earth's most important heat source. ▪ Identify ways in which homes, buildings and materials are heated.	▪ Be encouraged to think and question each investigation and also to ask and respond to questions about the effects of heat in our everyday world. ▪ Use close observation during each investigation. ▪ Be given the opportunity to predict what will happen in each investigation before trying it out – their predictions should be recorded for discussion later. ▪ Be encouraged to design and plan one of the suggested investigations and identify one or two variables. ▪ Measure heat using non-standard and standard units. ▪ Sort sources of heat into natural or artificial, and materials into conductors or insulators of heat. ▪ Record the investigations on record sheets.
	Unit 18: Materials	**Science:** Materials, Properties and Characteristics of Materials **Geography:** Human Environments, People Living and Working in the Local Area	▪ Identify and investigate a range of common materials used in the immediate environment. ▪ Describe and compare materials, noting the differences in colour, shape and texture. ▪ Distinguish between raw and manufactured materials. ▪ Group materials according to their properties. ▪ Investigate how materials may be used in the construction of homes.	▪ Ask questions about materials in the immediate environment and pose questions that will identify problems to be solved. ▪ Observe and describe natural and human materials and processes in the immediate environment. ▪ Predict the likely outcome and offer suggestions (hypotheses) based on observations about the likely results of the investigation. ▪ Collect information and data from a variety of sources. ▪ Design, plan and carry out simple investigations. ▪ Identify one or two obvious variables relevant to the investigation. ▪ Realise that an experiment is unfair if relevant variables are not controlled. ▪ Use appropriate equipment and units of measurement. ▪ Sort and group materials according to their properties and present data in sets and subsets. ▪ Recognise patterns, interpret information and offer explanations, and draw conclusions from suitable aspects of the evidence collected. ▪ Record and present findings and conclusions using a variety of methods.

June	**Unit 19: Weather**	**Geography:** Natural Environments, Weather, Climate and Atmosphere **Science:** Environmental Awareness and Care, Environmental Awareness	▪ Use simple equipment to observe and record weather phenomena. ▪ Record and display simple weather observations in a systematic way, using graphs, charts and common meteorological symbols. ▪ Use analysis of weather recordings to begin to associate simple descriptions of clouds, amount of cloud cover, wind direction and other conditions of particular types of weather. ▪ Make and test weather predictions. ▪ Compare temperatures indoors and outdoors, in shade and sunlight, on different sides of the same building, and explore the reasons for differences.	▪ Develop some familiarity with, and engage in practical use of, maps and photographs of different scales and purposes. ▪ Offer suggestions (hypotheses) based on observations about the likely results of an investigation. ▪ Carry out simple investigations and collect information from a variety of sources, e.g. observations and experiments in the environment and classroom, photographs, books, maps, electronic and other media. ▪ Use appropriate simple instruments and equipment to collect data. ▪ Look for and recognise patterns and relationships in the environment, e.g. seasonal patterns in weather observations. ▪ Interpret information and offer explanations. ▪ Draw conclusions from suitable aspects of the evidence collected. ▪ Record and present findings and conclusions using a variety of methods.
	Unit 20: Soils	**Geography:** Natural Environments, Rocks and Soils **Science:** Living Things, Plants and Animals	▪ Observe, collect and examine different soil samples in the immediate and other environments. ▪ Sort and group constituent materials in samples. ▪ Compare and contrast materials, focusing on certain criteria. ▪ Begin to explore the influence of soils and rocks on animal and plant life.	▪ Ask questions about soil, its uses and the processes that made it. ▪ Observe samples of soil both in the garden and in the classroom. ▪ Predict what is going to happen before carrying out an investigation on a soil sample, or predict what they will find in the soil prior to a fieldtrip to collect or observe samples. ▪ Carry out simple investigations on soil. ▪ Use appropriate instruments and measurements when carrying out the soil investigations. ▪ Sort and classify soil types. ▪ Analyse which soil might be best for growth based on observations and investigations. ▪ Record and present findings and conclusions using a variety of methods including oral, written, pictorial, photographic, diagrammatic and graphical forms, and ICT. ▪ Explore and become familiar with some of the distinctive natural features of the locality and county.

Geography & Science – Fortnightly Plan at a Glance

Month	Unit	Textbook page	Activity Book page	Manual page
SEPTEMBER (1st fortnight)	1: Animals and Habitats	6	3	109
SEPTEMBER (2nd fortnight)	2: Buildings All Around Me	11	4	113
OCTOBER (1st fortnight)	3: Plants and Habitats	18	5	116
OCTOBER (2nd fortnight)	4: Living Together	23	6	121
NOVEMBER (1st fortnight)	5: Life in Blanchardstown	30	7	124
NOVEMBER (2nd fortnight)	6: Staying in Touch	35	11	128
DECEMBER (1st fortnight)	7: Ireland – People and Places	42	12	131
DECEMBER (2nd fortnight)	8: Mountains	47	15	134
JANUARY (1st fortnight)	9: Britain	54	17	137
JANUARY (2nd fortnight)	10: Science and the World Around Us	59	20	140
FEBRUARY (1st fortnight)	11: Egypt	68	21	142
FEBRUARY (2nd fortnight)	12: Rainforests	73	23	145
MARCH (1st fortnight)	13: Sound	78	24	148
MARCH (2nd fortnight)	14: The Human Body	83	25	152
APRIL (1st fortnight)	15: Electricity	88	26	155
APRIL (2nd fortnight)	16: The Sun	93	27	158
MAY (1st fortnight)	17: Heat	100	29	161
MAY (2nd fortnight)	18: Materials	105	32	165
JUNE (1st fortnight)	19: Weather	110	35	170
JUNE (2nd fortnight)	20: Soils	115	37	173

Unit 1: Animals and Habitats

September: 1st Fortnight

Subject: Science **Strand:** Living Things
Strand Unit: Plants and Animals

Subject: Geography **Strand:** Natural Environments
Strand Unit: The Local Natural Environment

Objectives

Ref: Textbook p. 6

The child should be enabled to:

- Observe, identify and investigate animals living in local environments.
- Develop an increasing awareness of animals from wider environments.
- Observe and explore ways in which animal behaviour is influenced by, or adapted to, environmental conditions.
- Sort and group living things into sets according to observable features.
- Use simple keys to identify common species of animals.
- Appreciate that animals depend on plants and, indirectly, on the sun for food.
- Discuss simple food chains.
- Become aware of some of the basic life processes in animals.

New Words

herbivore carnivore vegetarian omnivore habitat native pollen pupa gills

Background Information for the Teacher

An Overview of the Animal Kingdom

Biologists group animals according to the list on the right.
A mnemonic may help you remember:

Kangaroos Play Cellos, Orangutans Fiddle, Gorillas Sing.

Kingdom
e.g. animals

Phylum
e.g. vertebrates

Class
e.g. mammals

Order
e.g. primates

Family
e.g. hominidae

Genus
e.g. homo

Species
e.g. sapiens

Phylum: The nine phyla in the animal kingdom are as follows:

Chordates (mammals, reptiles, birds, amphibians)
Molluscs (snails)
Porifera (sponges)
Cnidaria (jellyfish)
Platyhelminthes (flatworms)
Nematodes (roundworms)
Annelids (segmented worms)
Arthropods (insects, spiders, crabs, centipedes)
Echinoderms (sea stars)

Class: The chordate phylum contains many classes, including:

Mammals
Birds
Amphibians
Reptiles

Order: The mammal class includes these orders:

Carnivores (meat-eaters)
Chiroptera (bats)
Primates (humans, apes)
Cetacea (whales)
Proboscidea (elephants)
Lagomorphs (rabbits)
Rodents (gnawing mammals)

Family: Once again, there are a number of families in the primates order, including:

Hominidae (humans)	Hylobatidae (gibbons)
Lemuridae (lemurs)	Pongidae (gorillas)

Genus and species: Organisms are called by their genus and species. Organisms of the same species are genetically similar.

The above is by no means exhaustive and it is not intended that you present it to pupils in Third Class. It is presented here to help give you an overview of animal life and how animals are classified.

Lesson Kernel

The threads of this unit are as follows:

- Establish the difference between herbivore, carnivore and omnivore. Part of this exercise is to examine a simple food chain. Food chains begin in the plant kingdom and often include carnivores that prey on herbivores.
- Examine two contrasting habitats. The meadow and the seashore are contrasting habitats. We look at the animals that populate these habitats in Ireland.
- The meadow is awash with all kinds of animal life – far more than the few mentioned in the unit. It is a source of nourishment and shelter, both underground and above ground.
- The seashore is a harsher environment in many respects. Rocky or sandy, it is usually windswept, wet and salty. Animals have adapted to survive in this environment. Birds can nest on precarious cliff ledges. Worms live in the sand. Rock pools are homes to crabs, barnacles and a host of other creatures. Trips to the seashore need to be carefully planned and children will need close supervision.

Skills

1. **Observing** the behaviour of animals in Irish habitats (meadow and seashore)
2. **Identifying** characteristics of some animals, e.g. eyes on sides of the head to act as sentinel
3. **Investigating** the habits of such animals, e.g. eating, predation

Working as a Scientist

In this unit, pupils gain a simplified overview of the animal kingdom.

Assessment for Learning (Finding out what the pupils know *before* the unit)

Expertise on the animal kingdom varies widely among children. Some will be familiar only with domestic and farm animals. Others will have a much wider knowledge. Factors such as the catchment area of your school (urban/rural) are fairly significant in that some pupils may be familiar with livestock. Other pupils may be quite afraid of animals, never having had any hands-on experience with pets. Pupils may be fortunate to live near a meadow or the seashore, where they can experience animal life at first hand. Many children have a pet, which they might bring in. There's an old saying in education: 'A hamster in the classroom is worth two in the pet shop.' In any event, children love to talk about their pets and their experiences with animals.

Hamster

Assessment of Learning (Finding out what the pupils have learned)

- Completion and correction of the written exercises that accompany the unit (The same applies for all units.)
- Informal assessment is always useful. Ask pupils to say or write the name of an animal they had not heard of before the lesson. Ask them to say or write a characteristic of an animal that they learned about during the lesson. Observe how capable they are of collecting information from sources such as direct observation in the environment, interviews and books, electronic sources and the internet.
- Lessons have an 'enjoyment index', which can be gleaned from the enthusiasm you feel from your class, e.g. pupils talking about the lesson after class, enjoying voluntary further reading, or bringing in snippets of information from home.

Differentiation – More Challenging

1. Complete the written exercises in the Textbook and the Activity Book. (The same applies for all units.)
2. Create food chains with three or four elements. Each chain should begin with a member of the plant kingdom and finish with a carnivorous member of the animal kingdom. Humans may be included.

Differentiation – Less Challenging

1. Complete the exercises in the Textbook and the Activity Book orally or with a partner. (The same applies for all units.)
2. How many creatures within Ireland and outside of Ireland can you find for each of the following groups? (1) Can fly, (2) Can swim, (3) Can fly and swim, (4) Cannot fly and does not usually swim. Give an example for each category, e.g. (1) robin, (2) trout, (3) duck, (4) fox.

Related Websites

www.exploringnature.org/db/detail.php?dbID=87&detID=1192
Overview of the animal kingdom – exploring nature educational resources

http:// www.heritagecouncil.ie/fileadmin/user_upload/Publications/Education/Wildlife_in_Schools.pdf
The Heritage Council has published a super book for schools on wildlife – available for download

Extra Ideas

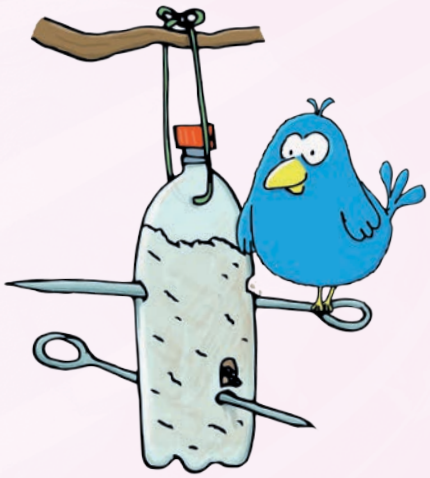
- Encourage chidren at all times to be kind to all creatures and to never be cruel. Check out the website of the ISPCA (check in advance – images can be disturbing): www.ispca.ie.
- Protected species are plants and animals that are protected by law. Fines can be imposed for killing these creatures or destroying their homes. Find out which species are protected.

Linkage: **Science Strand:** Living Things, **Strand Unit:** Human Life – Many characteristics of, and behaviours exhibited by, animals have similarities to our own. Examine a food chain with a human at the top.

Science Strand: Living Things, **Strand Unit:** Plant Life – The habitats explored in this unit in the context of animals are re-examined in the context of plants in Unit 3.

Integration: **Literacy:** Research opportunities abound for this popular strand. Most pupils love the topic and will apply themselves willingly to study and enquiry. There is much attractive, easy-to-read material on meadow and seashore habitats. These can be widened to include similar habitats in other lands. **Numeracy:** If visiting a habitat, counting and classifying creatures is an enjoyable activity and a real-life maths experience.

Design and Make: A Bird Feeder



You will need: An empty milk carton or plastic bottle, scissors, skewers, seeds or nuts, string

Method: (Adult help required.)

1. Cut the top off the milk carton or plastic bottle.
2. Wash it and let it dry. Poke some holes in the sides with scissors.
3. If you have some skewers, poke one or two through the holes to act as perches.
4. Fill the carton with seeds or nuts.
5. Thread some string through the top of the carton and hang the feeder on a tree or stand it on something. It may take a few weeks for the first birds to arrive.

Try this: Many birds love apples. Hang an apple from a tree and see what it attracts.

Please note that in general the answers provided are sample answers. Lists are not exhaustive.

Answers – Textbook

Page 8:

1. rabbit **2.** clover **3.** It has to surface for air or it might drown. **4.** Africa **5.** in fields of tall grass **6.** egg-caterpillar-pupa-adult **7. (a)** bumblebee, corncrake, earthworm, cow, horse, sheep, lark… **(b)** sea creatures, exotic animals… **8.** horse neighs, donkey brays, cat purrs, dog barks, bee hums…

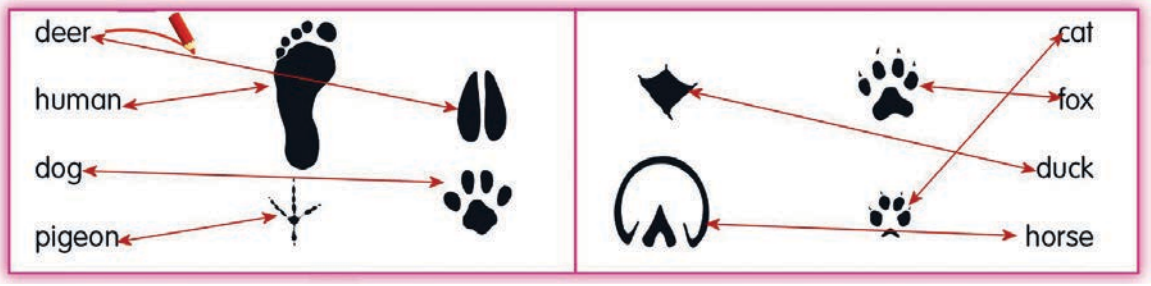
Page 10:

1. 10 legs, two of which are pincers **2.** blue mussels **3.** sea star **4.** the sea star has no fins, gills or scales **6.** fins help the fish to swim and balance **7.** gills **8.** lugworm, ragworm **9.** long legs

Answers – Activity Book

Page 3:

A.



B. 1. OMNIVORE **2.** HERBIVORE **3.** DECAPOD **4.** FILTER

Unit 2: Buildings All Around Me

September: 2nd Fortnight

Subject: Geography **Strand:** Human Environments
Strand Unit: People Living and Working in the Local Area (Homes and Other Buildings)

Subject: Science **Strand:** Environmental Awareness and Care
Strand Unit: Science and the Environment

Ref: Textbook p. 11

Objectives

The child should be enabled to:

- Explore.
- Investigate.
- Appreciate the major features of the built environment in the locality and in a contrasting part of Ireland.

New Words

community terraced semi-detached cement lime
concrete reservoir electricity solar fords keystone

Background Information for the Teacher

- Rope bridges were made to span narrow, deep chasms and gorges. The Carrick-A-Rede Rope Bridge in County Antrim is probably the most famous one in Ireland. Crossing it is a very scary experience – especially if it's a windy day.
- The longest bridge in the world opened in 2010 in China. It is called the Weinan Weihe Grand Bridge. It is almost 80 km long.
- Bridge engineers often prefer to compare bridge spans (as opposed to end-to-end lengths) when talking about longest bridges. The Joe Dolan Bridge outside Mullingar is 540 m long. One of the spans of the River Suir Bridge measures 230 m.
- A viaduct is an arched bridge over a valley. An aqueduct is a bridge that carries water (instead of a road or railway). The Ancient Romans built aqueducts to bring water to the cities for drinking and for public baths.

Lesson Kernel

The threads of this unit are as follows:

- The unit concentrates on the functions of various types of building and parts of buildings.
- Your community will have examples of typical building types: school, place of worship, offices, shops, dwellings, etc. Pupils should be encouraged to compare typical building types (houses, shops, etc.) in your locality. An interesting idea is to discuss what might happen if a building closed for a month and its functions were transferred to another building (e.g. a school was flooded and some classes had to temporarily use the local library).
- Unique to your community will be many other types of building, e.g. a folly, castle ruin, harbour pier, public monument, boarding kennels, or lighthouse. Draw the children's attention to the fact that not all buildings are for living or working in. Buildings serve many functions.
- Play a game called 'What Am I?' Describe a part of a house (or other building), e.g.
  - This room is below ground level. It is used for storage. (cellar or basement)
  - This part of a house keeps out the rain. It slopes. (roof)

– This space is directly beneath a roof. It holds a large water cistern. (attic)

– This space is not in a house. It is underground. Traffic passes through it. (tunnel)

– This large room is in an airport. People wait here for their flights. (departures area)

Skills

1. **Observing** buildings in the local environment
2. **Examining** pictures of buildings outside the local environment
3. **Discriminating** between buildings in which we live, and buildings (such as bridges) that have a different function

Sean O'Casey Bridge, Dublin

Working as a Geographer

Survey your house and compare your findings with those of your classmates. The first step is to draw up a list of survey questions. The questions require specific answers (a number, an item from a list or yes/no). There is also a ready-made photocopiable survey on page 190. As a teacher, you may need to treat such a survey with sensitivity. You might allow pupils to 'choose a house' (grandparents', aunt's, or friend's house, for example) to survey, i.e. not necessarily their own homes.

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Pupils will name as many types of building as they can and the purpose of each building.
- Discuss the function of buildings other than houses and the purpose of features of those buildings (e.g. the cellar of a house, the keystone of an arch, the solar panel on a roof, etc. can be explored).

Assessment of Learning (Finding out what the pupils have learned)

- This unit aims to make children aware of the wonders of architecture in the world around them. No two houses are the same – the occupants stamp their own identities on their home when they paint and decorate. The variety of buildings in the locality is quite staggering and if children look at buildings – both from an aesthetic perspective and a functional point of view – they will begin to appreciate the major features of the built environment.
- Can the pupils provide authentic oral, written or pictorial accounts and descriptions of buildings observed or studied?

Differentiation – More Challenging

1. Compile a list of 10 famous buildings in Ireland (e.g. the GPO, the O2, Newgrange).
2. Compile a list of 10 famous buildings outside Ireland (e.g. the White House, the Pyramids of Giza, the Eifel Tower).
3. Look for: (1) the oldest building in your community, (2) the oldest gravestone in the local graveyard, (3) a building whose function has changed (e.g. a warehouse converted into a shopping mall).
4. Discuss the materials that are used in the construction and decoration of a house.

Differentiation – Less Challenging

1. Fill in the blanks for your school building.

Number of classrooms:		**Type of roof (flat/sloped):**	
Number of other rooms:		**How many?**	
When school was built:		☐ yards, ☐ pitches, ☐ courts, ☐ gardens, ☐ car parks	

2. List five pieces of furniture you would find in a bedroom/office/classroom.

Related Websites

www.heritageireland.ie
Buildings of Ireland – information and maps of lots of important buildings in Ireland

www.skyscraperpage.com/diagrams/?searchID=203
World's tallest buildings (terrific graphic display)

Linkage: **Geography Strand:** Environmental Awareness, **Strand Unit:** Caring for the Environment – Discuss how graffiti disfigures many of our public buildings and how important it is that we take pride in our environment.

Integration: **History:** *Small World History* Unit 2: The Stone Age (building of Newgrange), and Unit 9: The Egyptians (building of the pyramids). **Literacy:** Encourage pupils to read about famous man-made structures throughout the world. **Numeracy:** Surveys of buildings require mathematical skills (counting and recording data). Pupils can draw bar charts and pictograms to convey results.

Answers – Textbook

Page 11: 1. hospital **2.** fire station **3.** train station **4.** bowling alley **5.** post office **6.** cinema **7.** courthouse **8.** football stadium **9.** library

Page 12: 2. friends, family, post/parcel delivery, refuse collector, canvasser, door-to-door sales agent, pizza delivery, meter reader, repair agent, doctor… **3.** concrete blocks: walls; paint: walls; tiles: floor or walls; glass: windows; carpet: floor; curtains: windows; wood: floor, stairs; wires: cables; hinge: doors, windows; slate: roof; pipes: under floor, sink, hot press; radiator: walls

Page 15: A. 1. terraced, semi-detached, detached, bungalow, cottage… **2.** living room, bedroom, kitchen, bathroom… **3.** walls, roads, blocks, pillars, bridges… **4.** water, gas, electricity, signal for TV or internet

B. 1. shallow water crossing place **2.** curved building style used for bridges **3.** the Romans **4.** at the very top **5.** arch bridge, beam bridge, drawbridge, cable stay bridge

C. hospital: doctor, bank: money, school: pupil, palace: king, greenhouse: tomatoes, court: judge, restaurant: meals, warehouse: boxes, library: books, museum: old things

Answers – Activity Book

Page 4: D. 1. SOLAR **2.** FOLLY **3.** DETACHED **4.** KEYSTONE

Unit 3: Plants and Habitats

October: 1st Fortnight

Subject: Science **Strand:** Living Things
Strand Unit: Plants and Animals

Subject: Geography **Strand:** Natural Environments
Strand Unit: The Local Natural Environment

Objectives

The child should be enabled to:

- Observe, identify and investigate plants that live in local environments.
- Develop an increasing awareness of plants from wider environments.
- Observe and explore some ways in which plant behaviour is influenced by, or adapted to, environmental conditions.
- Sort and group living things into sets according to observable features.
- Use simple keys to identify common species of plants.
- Understand that plants use light energy from the sun.
- Investigate the factors that affect plant growth.

Ref: Textbook p. 18

New Words

meadow oxygen marram grass fertilise

Background Information for the Teacher

An Overview of the Plant Kingdom

What makes a plant a plant? Plants have three distinguishing characteristics:

1. They contain chlorophyll, a green pigment used in photosynthesis.
2. The cell walls are made of a sturdy material called cellulose.
3. They cannot move from where they are rooted.

Plants are classed in one of two categories – non-vascular or vascular:

Non-vascular plants have no special parts to conduct water and nutrients. Plants in this category include mosses, which have leaves and stems. but no root system. They absorb water through their surfaces.

Vascular plants have special bundles of cells to carry water and nutrients from the roots to the leaves (xylem) and carry sugar/sap from the leaves to other parts of the plant (phloem). The tree rings visible in a cross-section of a tree trunk are xylem. Most plants are vascular.

Vascular plants can be subdivided further:

- With spores: Ferns are the main occupants of this category. Instead of producing seeds, they produce spores by which they reproduce.
- (i) With seeds: Conifers, pines, firs, spruce, cedars, and yew reproduce from seeds, but their seeds are said to be naked. That is to say, they are not enclosed in a flower ovary.
  (ii) Flowering plants are the most numerous of all. They include most trees, shrubs, grasses, flowers, vegetables, vines and fruits. The seeds grow within an ovary embedded in a flower or fruit.

Finally, flowering plants produce seeds of two types:

- **Monocotyledons** have a single cotyledon (embryonic leaf). Grasses, lilies, daffodils and onions belong to this group. The most noticeable characteristic of monocotyledons is that the veins in their leaves almost always run parallel.
- **Dicotyledons** have two embryonic leaves in their seeds and include many trees, garden flowers and vegetables. The veins in the leaves usually form a network.

The above is by no means exhaustive and it is not intended that you present it to pupils in Third Class. It is presented here to help give you an overview of plant life and how plants are classified.


Monocotyledon

Lesson Kernel

We cannot take it for granted that children intuitively understand that animal and human life depends completely on the plant kingdom. Everything we eat (with the exception of mushrooms, which are classified as fungi) grew and is eaten directly by us, or is first eaten by animals, which are eaten by us.


Dicotyledon

The threads of this unit are as follows:

- Investigating the factors that enable growth – light, heat, soil and water: Omit any of these factors and plants will die. Sunlight is not usually necessary for germination of seeds (which can be planted in a tray in a dark warming cupboard), but seedlings will soon die without sunlight.
- Focusing on the foods we eat which derive directly and indirectly from plants: It's a useful exercise for pupils to examine their diets and to trace as many elements back to their plant sources as possible. This is not always straightforward, given the amount of processing that much of our food undergoes and the abundance of chemicals and flavourings that are added.
- Examining some plant habitats: Meadow and seashore are contrasting habitats. For example, grasses growing in a meadow have different characteristics to those growing by the seashore. Marram grass has been planted on seashores to impede sand migration in dry, windy conditions. Its roots bind the sand. Seashore plants are characterised by a tolerance of salty soil and air, as well as adaptation to exposed conditions. They tend to be low-growing and strong. Meadows are a paradise by comparison, with a wider gamut of plant species and accompanying animal life.

Skills

1. **Hypothesising** about a seed's/plant's need for water, light, heat and soil
2. **Recording** the results of experiments on growing seeds in varying conditions
3. **Investigating** plant life in two contrasting environments: the meadow and the seashore

Working as a Scientist

If you are unable to visit a seashore or meadow, there are many plants nearby. Even weeds can be interesting! The nearest green space will have lots of specimens. You may be lucky enough to have a school garden (or you could start one). Ask children to bring in potted plants or cut flowers so that they can see the wide diversity of plant life.

Investigate: Plant a Bulb or Flower Seeds

You will need: Seed compost (available for a few euro in most DIY shops), flowerpots and seed trays (or other containers with holes for drainage), bulbs or seeds

Method for autumn:

1. Buy a bag of daffodil bulbs and distribute one or two to each child.
2. Plant them just under the surface in pots of compost in October or early November and leave them outdoors until spring.
3. Hyacinths planted at this time will make great Mother's Day gifts.

Method for spring:

1. Buy a packet of seeds such as French marigold and plant the seeds in March. Don't bury the seeds.
2. It is usually best to place the trays in a warm place, but as soon as the seeds germinate, place the trays in sunlight.
3. Transplant the seedlings to fresh trays of compost after about two weeks. Show the pupils how to hold a seedling gently by the leaf, make a small hole in the compost and firm it in. The reason for transplanting is that, initially, the seeds will sprout very close to one another and unless transplanted, will choke.
4. During this time, the seedlings will have to be kept indoors at night, otherwise they will be killed by frost. Leave them to grow in the trays until May and then plant them out in the school garden or have the children plant them at home.

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Pupils will have varying degrees of familiarity with plant life. They should name as many types of plant and as many foods derived directly from plants as they can. You may need to stimulate pupils by calling to mind different categories of plants, e.g. houseplants, garden plants, flowers, vegetables, crops, and exotic plants found abroad.
- Ask pupils about the factors that enable seed germination and plant growth and those that inhibit plant growth.

Assessment of Learning (Finding out what the pupils have learned)

- Green fingers! Sometimes success is best measured not by the questions a child can answer, but by the germ of an idea or attitude that has been planted within. If s/he planted a seed and enjoyed watching it mature and flower then s/he has succeeded. Hopefully in the future, the child will enjoy, respect and care for the natural world.
- More formally, to what extent does the child accurately observe the plant world or how well can s/he sort and categorise plants according to various characteristics? How successful were any experiments carried out and what did the pupils learn from them?

Differentiation – More Challenging

Investigate: Can We Create a New Plant Without a Seed?

You will need: A plant (geranium is a fairly easy one to try), scissors, jar of water

Method:

1. Choose a non-flowering stem and cut it below a leaf joint.
2. Remove the leaves immediately above the cut.
3. Place it in a jar of water and you should see roots appearing after a few days.

Check out this website for further details:
www.mistyhorizon2003.hubpages.com/hub/Fun-Classroom-Activities-to-Interest-Children-in-Plants

Differentiation – Less Challenging

Investigate: Are Plants Attracted by Light? (Phototropism)

Seeds sprouting in a tray will lean towards the light source. This is very easy to observe if a seed tray is placed on a window ledge for a week or two.

Related Websites

www.factmonster.com/ipka/A0932480.html
Science website aimed at children, with lots of additional information on the plant kingdom

www.sciencekids.co.nz/gamesactivities/plantsgrow.html
Interactive activity on growing a plant – adding water, heat, light and time to the graphic

www.bbc.co.uk/gardening/gardening_with_children/plantstotry_easy1.shtml
BBC webpage on easy-to-grow plants, with lots of simple advice on making sensible choices

www.biology4kids.com/files/plants_main.html
Background information on plants and the plant kingdom, aimed at primary school pupils

Hot Science

- Some plants are carnivores. They trap small insects and absorb nutrients from their dead bodies. Examples are the Venus flytrap and the sundew (found in Irish bog-land).
- Around 2000 different plants are used by humans as sources of food.
- Some plants are highly poisonous, e.g. the yew tree, foxglove and castor bean. The giant hogweed, which grows along riverbanks, produces a sap that will cause skin to blister on contact. Children sometimes make peashooters from the stems, with unpleasant consequences. Show pupils a picture to warn them.
- Why do some plants produce beautiful flowers and others don't? It usually depends on the method of fertilisation. Plants fertilised by insects have bright flowers to attract insects to enable pollination. Those pollinated by wind tend not to produce bright flowers.

Giant hogweed

Linkage: **Science Strand:** Living Things, **Strand Unit:** Animal Life – Animals are dependent on the flora of their habitat to support them, directly or indirectly.

Integration: **Literacy:** Labelling trays of seeds with the variety and date of sowing are excellent examples of meaningful functional writing. Reading the instructions on seed packets is a life-reading skill. **Numeracy:** Symmetry – Look for examples of symmetry in the plant world.

Answers – Textbook

Page 19: A. Plants need water, heat and light in order to grow. They grow best when they are planted in good soil. Part of the plant grows above the ground and part of it grows below the ground. Humans like to eat plants. We eat fruit (such as apples and strawberries) and vegetables (such as carrots and parsnips). Plants fill our air with oxygen.

Page 22:
A. 1. It is dangerous to swim if you see a red flag. **2.** Marram grass stops sand from blowing away. **3.** Good soil has lots of earthworms. **4.** Potatoes came from America to Ireland. **5.** Spring tides happen twice a month.

B. 1. grass **2.** daisy **3.** you might be stung **4.** thyme, rosemary, onion… **5.** cattle, sheep, horses, goats… **6.** birds singing, water gurgling, wind blowing through the trees, bees humming, cows mooing, sheep bleating, horses neighing, flies buzzing, leaves rustling, tractor

Answers – Activity Book

Page 5:
B. Across: 4. dandelion **6.** grows **8.** mower **9.** ears
Down: 1. onion **2.** seashore **3.** light **4.** digs **5.** nettle **7.** sow
C. bread – wheat; yoghurt – milk; chips – potatoes; icing – sugar; marmalade – oranges; prunes – plums; raisins – grapes; ketchup – tomato; celery – stem; onion – bulb; carrot – root; lettuce – leaf; sprouts – bud; pea – seed; rhubarb – stem; cabbage – leaf

Unit 4: Living Together

October: 2nd Fortnight

Subject: Geography **Strand:** Human Environments
Strand Unit: People Living and Working in the Local Area (Communities)

Subject: Science **Strand:** Environmental Awareness and Care
Strand Unit: Caring for the Environment

Objectives

The child should be enabled to respect the people and communities who live and work in the locality and in a contrasting part of Ireland.

Ref: Textbook p. 23

New Words

application median council colony

Lesson Kernel

The threads of this unit are as follows:

- Castaway: Thomas Leaf is fictional, but similar events have really happened, e.g. *Robinson Crusoe* was based loosely on the true story of Alexander Selkirk, who requested that he be left on an uninhabited island after a disagreement with his ship's captain. He never expected that it would be years before his rescue! We are so dependent on power, communications, shops, transport, etc. that it is hard to imagine life without these amenities.
- Interdependence: Pupils should list all of the people, outside family, with whom they interact – friends, GAA coach, swimming instructor, bus driver, shopkeeper, etc. to help them get a sense of how everyone contributes. Two important aspects to note: Firstly, that a person's role might not involve a 'job'. A cheery smile, words of encouragement, friendship and advice are indispensable contributions to the wellbeing of society. Secondly, that interdependence is a two-way street. Others depend on us and there is an onus on everyone to give as well as to receive.

Alexander Selkirk Statue, Scotland

- People and institutions in our community have special responsibilities, e.g. firefighters, ambulance crews, coastal rescue, Gardaí, county council, etc. Every vibrant community includes a mixture of voluntary community spirit, e.g. Tidy Towns committees, and statutory community enterprises for tasks that are usually best left to professionals.

Skills

1. **Identifying** people in our community with whom we interact
2. **Investigating** the role of community groups and individuals

Working as a Geographer

How do we find out about our community?

1. Out and about in my community: Your locality likely has a centre of community interest that is worth a visit, e.g. the library, fire station, lifeboat centre, town centre, place of worship, visitors' centre, etc. Local craftspeople might be very willing to demonstrate their craft to your pupils. There may be a local artist, potter, engraver, musician, florist, gardener, or park ranger. Use whatever resources are available to you. Prepare the children by telling them what to look out/listen for. Rehearse the questions that might be asked.

2. Classroom visitors: The school warden might be happy to come in for a few minutes to talk to the children about safety on the road. Many parents have interesting jobs in the community and might be invited.
3. Sharing our experiences: Collectively, the pupils will have interacted with a broad spectrum of people locally. They only need to be prompted to unearth and share their experiences. Look for stories of interest, where a member of the community came to the rescue, e.g. our visit to the vet, what happened when we discovered a leak, the time I got lost in the shopping centre, my trip to A&E, etc.

Assessment for Learning (Finding out what the pupils know *before* the unit)

Children are aware of how much they depend on their parents. They are less aware of their dependence on the wider community, our interdependence, and the extent to which every person makes a contribution. We each bring our special skills, talents and personality to bear on those with whom we interact.

- Discuss life without the company and support of others.
- List all the people with whom we interact.
- Look at the animal kingdom and note how many creatures live in a community.

Assessment of Learning (Finding out what the pupils have learned)

- Success in this strand unit may be determined by gauging how much more aware your pupils are of their community. Teacher-designed tasks may be used to evaluate pupils' awareness.
- Complete a KWL chart on the people, groups and organisations within the community.
- Ask pupils to draw a chart with themselves at the centre, surrounded by the names or occupations of those with whom they frequently interact.

Differentiation – More Challenging

Create a profile of a local club. Choose a club of which you are a member (e.g. local tennis club) and find out: How many members are in the club? Is it for adults as well as children? Who is the person in charge? Is there a committee? Who organises competitions? Does your club interact with clubs from other communities? How much does membership cost? How often do members meet? Is there a social dimension, e.g. a Christmas party?

Differentiation – Less Challenging

Who is your favourite person in your community (after Mum and Dad, of course)? Talk or write about him/her. (Examples: sweetshop owner, school warden, senior citizen, sports team manager, swimming coach, music teacher, cinema manager, resource teacher.)

Related Websites

www.bbc.co.uk/history/scottishhistory/europe/oddities_europe.shtml
Background information on Alexander Selkirk, the model for *Robinson Crusoe*

www.environ.ie/en/LocalGovernment/LocalGovernmentAdministration/LocalAuthorities/
Every county council has a website (list above). Check it for school and children's programmes, local library talks and environmental campaigns. A council-worker might be available to come to your class to talk about his/her work.

Extra Ideas

- Staying safe in the community is a very important part of the child's education and this strand unit may provide a suitable springboard to talk to pupils about trust, good and bad secrets, and sharing worries with a trusted person. Your school has a designated liaison, should any concerns come to light. 'Stay safe' issues occur in all communities.
- South Dublin County Council has initialised a project called Fix Your Street (www.fixyourstreet.ie/). Members of the public are invited to use the website to inform the council of litter, graffiti, illegal dumping, road defects, street lighting issues, etc.

Linkage:

Geography Strand: Human Environments, **Strand Unit:** People Living and Working in the Local Area (Transport and Communications) – Interdependence is determined by our ability to communicate successfully with others, i.e. face to face, through the written word, sign language or electronic media. The words 'community' and 'communications' share a common root.

Integration:

Literacy: Make up headlines for your local newspaper that tell readers of an event. It can be true or made up. Examples: 'Famous Group Visits Our Town', 'Local Hero to the Rescue', 'Dog Saves Gran'.

Numeracy: Fees charged for community services – which are free and which are not? If the fire service puts out a chimney fire, is there a charge? How much is the fine in the library on an overdue book? Do local clubs charge membership and/or weekly fees? How much does the doctor/dentist/vet charge? How about doing a good turn for your neighbour, e.g. putting out a bin – would you expect a reward?

Answers – Activity Book

Page 6: A. 1. community **2.** median **3.** council, **4.** colony

Unit 5: Life in Blanchardstown

November: 1st Fortnight

Subject: Geography **Strand:** Human Environments
Strand Unit: People Living and Working in a Contrasting Part of Ireland

Subject: Science **Strand:** Environmental Awareness and Care
Strand Unit: Environmental Awareness

Objectives

The child should be enabled to:

- Become aware of the natural features of Blanchardstown and their relationship to the lives of people living there.
- Learn about and come to appreciate and respect communities living and working in a suburban area of Ireland.
- Explore, investigate and come to appreciate the major features of the built environment of Blanchardstown.
- Become aware of forms of transport in Dublin and its suburbs.

Ref: Textbook p. 30


Unit 5: Life in Blanchardstown

New Words

urban rural suburb commute residents' association graffiti emergency service

Lesson Kernel

The threads of this unit are as follows:


Google Earth of Blanchardstown, 2012

- The Walsh family lives in a suburb of Dublin and pupils are given a look at their daily life.
- Blanchardstown has changed over time from a quiet village in rural County Dublin into a suburban satellite of the sprawling city
- Housing types include apartments, terraced, semi-detached and detached houses, most often in large estates. Community groups such as the residents' association are important for bringing people together to make a cleaner and safer environment.
- Members of the Walsh family commute to work and school using a variety of transport modes, including the city bus and train services, cycling and walking. Traffic considerations play an important role in their daily lives.
- There are many educational opportunities close to their home, including a university.
- The numerous local services provide the family with a rich choice of hobbies and pastimes.
- Although living in a suburban area, the Walshs are lucky that they have a choice of 'green area' amenities nearby, including local parks and playgrounds and the Phoenix Park, where Dublin Zoo is located.
- Buildings of note in the area include Áras an Uachtaráin and the historic Luttrellstown Castle. High-rise and commercial and industrial buildings are also common in the area.

Skills

- **A sense of place:** Developing some awareness of the distinctive human and natural features of a place in Ireland
- **A sense of space:** Developing an understanding of the relative location and size of major natural and human features
- **Maps, globes and graphical skills:** Engaging in practical use of photographic evidence and maps and developing an understanding of, and using, some common map features and conventions

Working as a Geographer

Geographers use a variety of techniques and sources of evidence to find out about a place. Pupils learn about Blanchardstown through the following:

- Comparison of old and current photographs of the Blanchardstown area
- Making a list of the ways in which Blanchardstown is the same as, or different to, their local area
- Using personal evidence by looking at the daily life of a family that lives in the area
- Examining photographs of homes in the area
- Using street-view photographs to draw conclusions about transport and environmental conditions in the area
- Using plans and maps of the Phoenix Park, Dublin Zoo and the Blanchardstown Centre
- If possible, pupils should interview a resident of Blanchardstown, or make email contact with a primary school there in order to get a first-hand account of life in the suburbs, which they can compare and contrast with life in their own area.
- Pupils should find out how they would get from their local area to Blanchardstown.

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Brainstorm: Question the class on what they know about Blanchardstown. Create a concept map.
- KWL chart: Write five things pupils know and five things they wish to find out about Blanchardstown.

Assessment of Learning (Finding out what the pupils have learned)

- Revisit the concept map. Use a new colour to add what they have learned about Blanchardstown.
- Complete the KWL chart with five things that they have learned about Blanchardstown. Can they now answer the questions that you asked before the lesson?

Differentiation – More Challenging

1. Do a project on the Phoenix Park. Include information on the buildings and monuments there, as well as the animals and plants. Can you find out about any events that are held there?
2. Design a flyer to encourage tourists to visit Blanchardstown.
3. Design your own park. Draw a map and use symbols to represent the facilities there.
4. Make a road-safety awareness poster for children in urban areas. Think of a good slogan for your poster.
5. Pretend you are Jack or Niamh. Make a list of the advantages and disadvantages of living in the Blanchardstown area.

Differentiation – Less Challenging

1. Provide peer support for the map-reading activities in the Activity Book (pages 8–10).
2. Do a project about Dublin Zoo, including information and pictures about the animals you would see there.
3. Make a poster to encourage tourists to visit Blanchardstown.
4. Draw or paint a picture of a park you would like to visit.
5. Write down five road-safety rules for children in an urban area.
6. Pretend you are Jack or Niamh. Make a list of reasons why you like the place where you live.

Related Websites

www.askaboutireland.ie/learning-zone/primary-students/looking-at-places/fingal/blanchardstown-through-ti/blanchardstown-village/
Educational website for Irish Primary students looking at changes in the Blanchardstown area since the 1980s

www.dublin.ie/forums/showthread.php?5372-Old-Photos-Of-Dublin/page787
Old photograph of Blanchardstown

http://fatstevewalks.files.wordpress.com/2007/06/fsw-kilcock08.jpg
Photograph of hedgerows along the Royal Canal

www.dublin.info/blanchardstown/ Facts and information about Blanchardstown

www.tidytowns.ie/ Tidy towns website

www.phoenixpark.ie/ Phoenix Park Website

www.dublinzoo.ie/134/Kids-Zone.aspx Dublin Zoo website

www.youtube.com/user/dublinzoovideos?feature=results_main
Dublin Zoo's YouTube channel

http://www.askaboutireland.ie/learning-zone/primary-students/3rd-+-4th-class/geography/transport-today/ Transport in Ireland

www.dublinfo.net/dublinrail/suburban/stat-castleknock.htm
Photograph of Coolmine Station

www.nationalaquaticcentre.ie/ National Aquatic Centre website

http://theluttrells.homestead.com/files/Luttrellstown_Castle_aerial_photo_108kb.jpg
Photograph of Luttrellstown Castle

Extra Idea

Visit Blanchardstown, Dublin Zoo or the Phoenix Park on a school trip.

Linkage:

Science Strand: Environmental Awareness and Care, **Strand Unit:** Environmental Awareness – caring for the environment, e.g. hedgerows along the canal and railway, and the Phoenix Park

Integration:

History: Look at old photographs of your own locality to see how it has changed. Look at how transportation has changed over time.

SPHE: Caring for the locality; community groups that help us; road safety

Answers – Textbook

Page 32: A. 1. an area with lots of houses on the edge of a large town or city **2.** Dublin **3.** terraced **4.** 68,000 **5.** semi-detached

Page 34: A. 1. number 37 **2.** Coolmine **3.** Blanchardstown **4.** Millennium Park or Phoenix Park **5.** Áras an Uachtaráin, Dublin Zoo, deer **6.** National Aquatic Centre **7.** Luttrellstown Castle **8.** Connolly Memorial Hospital

Answers – Activity Book

Page 7: A. 1. An area in a town or a city: urban **2.** A country area, away from a town or city: rural **3.** An area on the edge of a large city or town: suburb **4.** Travel to work: commute **5.** Drawings sprayed on walls without permission: graffiti

B. ✓ : phone box, post box, litter bin, tree guard, lamp post, bollards, signpost; ✗ : traffic lights, bicycle stands, pedestrian crossing

C. 1. (a) 12 **(b)** to deter people from walking out onto the road **2.** on lamp posts **3.** posting/collection of letters/parcels **4.** one-storey/bungalows **5.** National Aquatic Centre

Page 8: A. 2. four **4.** First aid **5.** seven **6.** tiger, mountain lion, etc. **7.** African lion, rhinoceros, giraffe, zebra, gorilla, chimpanzee, etc. **8.** beside the entrance/exit **10.** east **11.** 12 **12.** four

Page 9: A. 1. Dunnes **2.** Blue **3.** escalators **4.** three **5.** Penneys **6.** UCI Cinema **7.** toilets, crèche **8.** Postal Service Centre

Page 10: A. 1. nine **2.** five **3.** football, hurling, cricket, polo 4. Ambassador's **5.** Mary's **6.** Garden **7.** White's **8.** Áras an Uachtaráin

Unit 6: Staying in Touch

November: 2nd Fortnight

Subject: Geography **Strand:** Human Environments
Strand Unit: People Living and Working in the Local Area (Communications)

Subject: Science **Strand:** Environmental Awareness and Care
Strand Unit: Environmental Awareness

Objectives

The child should be enabled to:

- Become familiar with communication methods available.
- Investigate the work of people involved in communications.

Ref: Textbook p. 35

New Words

carrier pigeon	Pony Express	communicate
microphone	Morse code	online tweet

Lesson Kernel

The threads of this unit are as follows:

- A look at communicating in the past, before the discovery of radio waves: The past twenty years have seen an explosive development of means of communication. The mobile phone has revolutionised the way we conduct business. Internet social networking sites have enabled us to share our experiences with our friends in real time. This was unimaginable even a short time ago. Similarly, it is difficult to imagine life without access to these facilities. In the history of humankind, it is only the blink of an eye since we used carrier pigeons and the Pony Express.
- An examination of some modern means of communicating: Radio waves make wireless communication possible – the infrared part of the spectrum that allows a remote control to 'talk' to a TV, shortwave radio that allows Bluetooth to link a phone to a car's speakers, microwave radio that can cook as well as carry internet signals, along with a great deal more. Digital TV and digital radio are both well established.

Skills

- **Examining** the development of communications from word-of-mouth to modern-day methods
- **Investigating** means of communicating from a distance by constructing a taut-line telephone
- **Listing** the means of communication that pupils have at their disposal
- **Communicating** using means other than voices

Working as a Geographer

Which communication method is best in the following situations?

- You are in school and feeling unwell. How might Teacher contact Mum or Dad? (mobile) What if his/her mobile was turned off? (send a text) What if you felt really sick and it was urgent? (phone the office landline) Mum is in a really important meeting…
- Mum needs to get a message to you in class about arrangements for after school.
- Teacher wants to inform parents about the parent-teacher meeting/cake sale/tour.
- The venue for a match after school has changed at the last minute. Parents must be contacted.

- The school principal wishes to explain an important new school rule to all of the pupils.
- Teacher wishes to showcase Caoimhe's wonderful picture to the school community.
- Teacher wishes to allow the school community to hear Tom's wonderful singing voice.
- Grandad is helping Kevin with his school project. Grandad is hard of hearing and lives far away.
- The President of Ireland wishes to speak to all of the citizens to tell them some very good news.
- The general of an army needs to get an important secret command to one of his captains on board a ship. The message must be secure and must not be overheard.
- Jean's dog is lost and she wishes to offer a reward to the person who finds it.
- Auntie Ciara wishes to show her wedding photographs to friends who live far away.
- A shop owner wishes to let customers know it is holding a massive sale.
- A DIY expert wishes to share his/her skills with anyone who might be interested. (YouTube)

Assessment for Learning (Finding out what the pupils know *before* the unit)

- We can communicate easily and cheaply with anyone, almost anywhere at almost anytime. It wasn't always so. Communication methods evolved slowly over the course of history until the end of the twentieth century, when the mass media suddenly became widely accessible. Compare how urgent and important messages were conveyed in the past with the electronic options at our disposal today.
- Ask pupils to list as many ways of communicating as they can and to categorise them as old-fashioned, modern or both (e.g. speaking and listening, writing, telephone, telegraph, mobile phone, email, etc.). Before embarking on the lesson, tell the pupils to ask their parents and grandparents how they managed to keep in touch when they were younger.

Assessment of Learning (Finding out what the pupils have learned)

- It is unlikely that any of the modern communication methods mentioned in this unit will be new to your pupils. They will all, almost certainly, have heard of the internet, email and tweets (and probably a few others that have arrived on the scene between the time of writing and today). Clear up any misconceptions about these means of communication and impress on your pupils that it was not always this way. Not so long ago, people had to visit the library to research information, and queue at a payphone to use a telephone. Your assessment, therefore, should reflect this and focus on how your pupils have a more meaningful understanding of modern communications by, for example, displaying and reporting on completed project work.
- Ask the children to suppose that there was a 24-hour power outage in their locality and they needed to get an urgent message to a friend, but they had no mobile phone. How might they do it? How much longer would it take than usual?

Differentiation – More Challenging

Write a Letter: Choose a subject of interest and demonstrate how the traditions of letter-writing dictate that the sender's address goes on the top right of the page. Children will still need help in Third Class spelling their addresses correctly. The subject matter might be: a letter to the local council congratulating them on opening a new park; a letter to a library requesting a particular book; a letter to a company requesting information; a letter to a post office asking about the history of stamps. This exercise is an excellent word-processing exercise on a computer.

Differentiation – Less Challenging

Charades: Talk to your friend without using words – no voice, no writing, only actions! For example, you have to think of the name of a book or film. Your friend has to guess the name from your hand signals and facial expression clues.

Charades

Related Websites

http://library.thinkquest.org/5729/
History of communication presented for children – very visual and easy to navigate

www.kidinfo.com/geography/the_world.html
General geography – information on countries of the world

http://maps.nationalgeographic.com/map-machine
National Geographic interactive map allows you to zoom in on countries and regions

www.eduplace.com/ss/maps/
Blank outline map resource – some with labels, some without labels

https://www.cia.gov/library/publications/the-world-factbook/index.html
CIA World Factbook on the geography and economies of the world's nations

Extra Ideas

- Sign language: Teach pupils a few letters in sign language: www.irishdeaf.com/?p=13.
- Communicate with people abroad – pen-pals and email buddies.
- How do animals communicate? Consider dolphins and whales, and land animals that live in communities.
- Why would communication be much more difficult if people were unable to read and write?

Linkage:
Geography Strand: Human Environments, **Strand Unit:** People and Other Lands – How do we contact people in other countries? (telephone, text message, blog, tweet, email, etc.)

Integration: **History:** Read the history of the first transatlantic cable – www.history-magazine.com/cable.html. **Literacy:** Speech and language activities are natural elements of this unit. Pupils should be encouraged to say or write short messages, e.g. party invitation, piece of news. **Music:** Make a digital recording of the class singing (download Audacity, for example – free software that's really easy to use). All you need is a microphone (only a few euro) to plug into the computer's sound card. You can have great fun with this software, giving special effects to people's voices.

Answers – Textbook

Page 36: 1. doves **2.** carrier/messenger/homing **3.** Bill **4.** mouth **5.** not always, but usually (discuss 'gossip')

Page 39: A. 1. local **2.** internet/world wide web **3.** sign **B. 1.** Radio was invented by Marconi, Tesla and Hertz. **2.** Ireland's first radio station was called 2RN. **3.** Using a computer to make phone calls is very cheap. **4.** A tweet has at most 140 letters or digits. **5.** The *Titanic* was able to send an SOS before it sank. **6.** The telephone service has been around for over a hundred years.

Answers – Activity Book

Page 11: A. communicate – to talk to and listen to another person; tweet – send a message to followers on a mobile phone/computer, using no more than 140 characters; online – to be connected to the www; intercom – device in a school or similar building to allow people to communicate

Unit 7: Ireland – People and Places

December: 1st Fortnight

Subject: Geography **Strand:** Human Environments
Strand Unit: People Living and Working in a Contrasting Part of Ireland

Subject: Science **Strand:** Environmental Awareness and Care
Strand Unit: Environmental Awareness

Objectives

The child should be enabled to:

- Become familiar with some major natural features in the county and their relationship with each other and with elements of the built environment (roads, bridges, towns and cities, etc.).
- Become familiar with the location and names of some urban features in the county.
- Develop some knowledge of the relative location of the county and neighbouring counties.
- Become familiar with the location and names of a few of the larger towns and cities in the region and in Ireland.

Ref: Textbook p. 42

New Words

geographer environment North Star compass rose county council Shannon Estuary

Lesson Kernel

This unit aims to give pupils a look at how a geographer operates in the study of places, introducing some of the skills and techniques involved:

- Geographical terminology is introduced – 'natural (physical) environment', 'human environment,' 'urban' and 'rural'.
- Geographers visit a place to find out about it, but photographs can also be examined, especially to find out how a place has changed or to get an aerial view. Photographs of Killaloe in County Clare are used as an example.
- The basic techniques of map-reading are introduced. A map of Killaloe in County Clare is shown as an example. A physical map of Ireland is introduced to help give a sense of the location of major natural features. A political map showing provinces and counties also helps to locate County Clare and the pupils' own counties in relation to the rest of Ireland.

The pupils are encouraged to apply these skills to the study of the local environment and are given a sample study of County Clare. A template for a local county study is included in the Activity Book (page 14).

Skills

- **Developing** map, globe and graphical skills through understanding and using some common map features and conventions
- **Engaging** in practical use of maps and photographs of differing scales and purposes
- **Identifying** major geographical features and finding places on the globe
- **Making** simple maps of the school and the immediate environment

Lahinch Beach, County Clare

Working as a Geographer

In this unit, pupils learn about and experience some of the methodologies that a geographer uses to study a local place or a contrasting place elsewhere. Pupils are working as geographers when they:

- Read maps and compare and contrast photographs of urban and rural areas.
- Draw features that can be seen in each direction from the school, using a compass.
- Compare County Clare with another county.
- Complete a study of the local area and record it in the fact-file template on page 14 of the Activity Book.

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Read a fairytale to the pupils, e.g. 'The Three Little Pigs' or 'The Billy Goats Gruff' and ask them to draw a map of the place in the story. Symbols can be included.
- Brainstorm: Talk to the class and record what is known about the local area on a concept map.
- Tell the children that they have to give directions to visitors coming to your school. What features would they see to help them find the school? Draw a 'map picture' of the area around the school. Use symbols if pictures are too difficult or take up too much space.
- On a blank map of Ireland (see Activity Book page 47), ask pupils to colour in their own county and label any other places or features known to them.

Assessment of Learning (Finding out what the pupils have learned)

- Revisit the class brainstorm about the local area. Use another colour to include any extra information that was learned.
- Ask pupils to make a tourist poster or flyer for County Clare and/or their own area.
- Ask pupils to colour their own county and province on a blank political map of Ireland. Ask them to label a few major features on a blank map of Ireland (photocopiable page 87), e.g. the River Shannon, Atlantic Ocean, Carrauntoohil, Lough Neagh.

Differentiation – More Challenging

1. Create a multimedia presentation about your local area. Make a list of the advantages and disadvantages of living in your local area.
2. List the advantages and disadvantages of living in an urban or rural area.
3. Do a project on County Clare.

Cliffs of Moher, County Clare

Differentiation – Less Challenging

1. Make a scrapbook about your local area.
2. Write five reasons why you like living in your local area and make a poster to encourage visitors to come to your area.
3. Collect photographs, postcards, newspaper/magazine clippings to make an 'urban' chart and a 'rural' chart. Write down the words that you associate with each type of environment.

Related Websites

www.youtube.com/watch?v=k_0G4d70LYU Map-reading for children

www.askaboutireland.ie/learning-zone/primary-students/3rd-+-4th-class/geography/map-work All about maps

www.bbc.co.uk/schools/barnabybear/games/map.shtml Map symbols game

www.tanikadesign.com/exploringeography/index.html Ireland's physical features

www.visitclare.net/ Information about County Clare

www.burrennationalpark.ie/ Information about the Burren

Extra Ideas

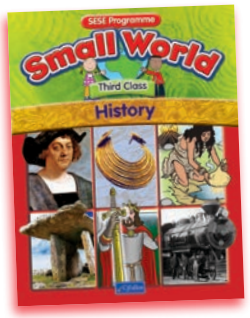
- Make a class collection of maps, guidebooks, tourist brochures, etc. of your local area and/or County Clare.
- Invite a native of County Clare to visit the class. Pupils should prepare questions in advance to ensure that they get a good idea about what the people and place are like.
- Go on a school trip to County Clare.

Linkage:

Geography Strand: Environmental Awareness and Care, **Strand Unit:** Environmental Awareness

Geography Strand: Natural Environments, **Strand Unit:** Land, Rivers and Seas of My County – sample study of County Clare

Geography Strand: Human Environments, **Strand Units:** County, Regional and National Centres; People Living and Working in a Contrasting Part of Ireland



Integration:

History: *Small World History* Unit 1: Fionn and the Fianna, and Unit 5: Setanta – Read stories associated with features in the local environment, e.g. myths or legends associated with a local mountain or hill, battles fought, a mill built on a local river, etc.

Literacy: Read maps and interpret symbols. Listen to stories or poetry about the local area.

Music: Learn songs associated with the local area or County Clare.

PE: Go on a walk around the local area – orienteering.

Answers – Textbook

Page 44: 1. Lough Derg, Lough Allen, Lough Ree **2.** Lough Neagh **3.** Atlantic Ocean **4.** Irish Sea **5.** River Blackwater **6.** River Bandon **7.** River Liffey **8.** River Lagan **9.** River Erne **10.** Rivers Suir, Nore, Barrow

Page 46: B. man-made: factory, shop, traffic lights, bin, car park, hospital, bridge; **natural:** river, lake, hill, forest

Unit 8: Mountains

December: 2nd Fortnight

Subject: Geography **Strand:** Natural Environments
Strand Unit: The Local Natural Environment

Subject: Science **Strand:** Environmental Awareness and Care
Strand Unit: Environmental Awareness

Objectives

Ref: Textbook p. 47


Unit 8: Mountains

The child should be enabled to:

- Become familiar with the names and locations of some major natural features in the county.
- Develop some familiarity with the relationship of these features with each other and with elements of the built environment such as roads, bridges, towns and cities.
- Become aware of the natural features in the locality and in a contrasting part of Ireland and their relationship to the lives of people living in these places.
- Observe and explore ways in which these features have affected the lives of plants, animals and humans.
- Investigate the ways in which these features have been used by humans and the changes that have occurred as a result.

New Words

magma crust range lava Sherpa summit altitude coniferous feral terrace scree erosion

Lesson Kernel

The threads of this unit are as follows:

- The Earth is not just a lump of rock. It is made up of layers of solid iron, liquid iron, magma and crust.
- Fold mountains are formed when two tectonic plates push into each other and force the rock up into a mountain.
- Block mountains are formed when a block of rock is forced up between two tectonic plates.
- The tallest mountain range in the world is the Himalayas. At 8850 m, Mount Everest is the tallest mountain in the world. Many people have climbed to the top, and so far, 227 people have died while attempting the climb. In 1953, Sir Edmund Hillary and his Sherpa guide, Tenzing Norgay, became the first people to reach the summit.
- Mauna Kea in Hawaii is actually taller than Mount Everest, but most of it is underwater.
- At 1038 m, Carrauntoohil in the MacGillycuddy's Reeks in County Kerry is Ireland's tallest mountain.
- Plants that grow on mountains need to be strong to survive the harsh weather conditions. Mountain plants have strong roots, short stems and small flowers.
- Wild, or feral, goats can live on Irish mountains because they have long, shaggy coats to keep them warm. They are also very agile, which means they can negotiate difficult terrain.
- Living on mountains is difficult for people. The Sherpas of Nepal have adapted to mountain life so well that they act as guides for people climbing Mount Everest.
- Tourists like to climb mountains. During winter, tourists like to ski in some mountainous resorts.
- Slate, coal, gold and other metals are often mined in mountains.

- Mountains get eroded by people, animals and the elements. Plants and trees help to hold the soil together on a mountain. We must be careful not to cut down too many trees, or allow animals to eat all the plants.
- A river can also wash away the surface of a mountain. A V-shaped valley forms when a river cuts down through a mountain.

V-shaped valley

Skills

- **Developing** awareness of the distinctive human and natural features of the locality, county, country and world
- **Developing** an understanding of the relative location and size of major natural features
- **Engaging** in practical use of maps
- **Observing, discussing and describing** natural and human features and processes in the environment and their interrelationships

Working as a Geographer

In this unit, pupils read maps, identify mountain ranges and learn about the process of mountain formation and erosion.

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Brainstorm: Question the class on what they know about mountains and create a concept map.
- Ask pupils to make a list of things they would like to find out about mountains. This list should be in question form, e.g. 'How are mountains formed?'
- Ask pupils to talk about a time they visited/climbed a mountain.
- Show pupils a blank map of Ireland with mountains included but not labelled. See how many they can name.

Assessment of Learning (Finding out what the pupils have learned)

- Revisit the concept map and use a new colour to add in what has been learned about mountains. Answer the questions pupils compiled before the lesson.
- Show pupils the same blank map of Ireland that you showed them prior to the lesson. Find out how many mountains they can name.
- Conduct a table quiz based on the information in this unit (page 184).

Differentiation – More Challenging

1. Use the internet to find out more information about Edmund Hillary, Mount Everest or Sherpas. Present your findings to the class.
2. Write a story about a disaster on a mountain, e.g. a mountain climbing accident or an avalanche.
3. Make a graph to show the 10 highest mountains in the world: www.sciencekids.co.nz/sciencefacts/topten/highestmountains.html.

Differentiation – Less Challenging

1. Make a poster about mountain safety.
2. Make a poster about preventing mountain erosion.
3. Write an acrostic poem about MOUNTAINS.
4. Take a Mount Everest quiz: www.kids.nationalgeographic.com/kids/games/geographygames/quizyournoodle-mount-everest/.

Related Websites

www.geography.mrdonn.org/mountains.html
Mountain-related lessons, activities and games

www.woodlands-junior.kent.sch.uk/Homework/mountains/volcanoes.htm
Facts about volcanoes

www.alanarnette.com/kids/everestfacts.php Facts about Mount Everest

www.tabstart.com/directory/education/teaching-kids-about-sir-edmund-hillary-1467
Links to many sites containing information and videos about Sir Edmund Hillary

Linkage: **Geography Strand:** Natural Environments, **Strand Unit:** Weather, Climate and Atmosphere

Integration: **Literacy:** Audio story – 'Bobby the Mountain Climber': http://freestoriesforkids.com/audiostories/british-english/bobby-mountainclimber-audio-story-narrated-british-english

Numeracy: Computation and graph work involving the heights of mountains

Music: Song: 'The Bear went over the Mountain'.

Visual Arts: Learn how to draw mountains: www.youtube.com/watch?v=sp8dZhzDduQ.

Answers – Textbook

Page 48: 1. (a) County Kerry **(b)** County Kerry **(c)** County Down **(d)** County Mayo **(e)** County Galway

Page 51: A. 1. Liquid rock is called magma. **2.** The highest mountain in the Ireland is Carrauntoohil. *or* The highest mountain in the world is Mount Everest.
3. The loose rock on the sides of a mountain is called scree.
4. Olympus Mons is the highest volcano on Mars.
5. The longest mountain range in the world is the Andes.

B. 1. Slieve Mish Mts *or* MacGillycuddy's Reeks *or* Caha Mts **2.** Wicklow Mts
3. Derryveagh Mts *or* Blue Stack Mts **4.** Maumturk Mts **5.** Nephin Beg Mts **6.** Mourne Mts

C. 1. Mauna Kea **2.** Sir Edmund Hillary **3.** Sweet Alison **4.** Sherpas

Answers – Activity Book

Page 15: A. Across: 3. scree **4.** range **5.** magma **7.** erosion
Down: 1. Sherpas **2.** terraces **6.** fold

Unit 9: Britain

January: 1st Fortnight

Subject: Geography **Strand:** Human Environments **Strand Unit:** People and Other Lands

Objectives

The child should be enabled to:

- Study some aspects of the environment and people's lives in Britain.
- Develop an awareness of the interdependence of the lives of people in Britain and Ireland.
- Develop a sense of belonging to local, county, national, European and global communities.

Ref: Textbook p. 54

New Words

official highlands colonies independence government parliament

Lesson Kernel

The threads of this unit are as follows:

- The unit focuses on life in Britain, the three countries that constitute it, and some of their natural and human features.
- It provides an overview of the history of governance and monarchy in Britain, as this type of government contrasts with that in Ireland.
- There is an emphasis on people: employment in British industries, a short overview of food and culture, and an outline of a variety of international sports that originated in Britain.
- Britain is Ireland's closest neighbour. There are many similarities between the two countries and some marked differences.

Skills

- **A sense of place:** Developing an awareness of man-made and natural features of some places in Britain
- **A sense of space:** Developing an understanding of the relative location and size of major natural and human features of Britain, e.g. its mountains, rivers, seas, lakes and cities, as well as some awareness of the names and relative locations of some of Britain's European neighbours
- **Using pictures, maps and globes:** Engaging in practical use of maps of different scales with different purposes, i.e. political and physical maps of Britain, and developing an understanding of some common map features and conventions, e.g. symbols

Working as a Geographer

In this unit, pupils will use geographical investigation skills to find out more about Britain and the features that contribute to its uniqueness as a territory.

Assessment for Learning (Finding out what the pupils *know* before the unit)

- Brainstorm: Question the class on what they know about Britain and create a concept map.
- KWL: Write five things pupils know and five things they would like to find out about Britain.
- On a blank map of Europe (photocopiable page 191), ask pupils to name the countries that they know. Can they find Britain?

Assessment of Learning (Finding out what the pupils have learned)

- Draw a Venn diagram and ask pupils to fill in the things that are unique to Ireland, unique to Britain, and common to both.
- Revisit the concept map and use a new colour to add in what has been learned about Britain.
- Complete the KWL chart with five things that have been learned about Britain.
- Revisit the blank map of Europe. Ask pupils to label Britain and its neighbours.

Differentiation – More Challenging

1. Design and make a tourist brochure on Britain. Pupils should establish the following assessment criteria in advance and can assess each other's work based on the rubric below:

	Content	Layout	Use of Images	Use of Maps	Total
Marks	/5	/5	/5	/5	/20

2. Use a blank map of Britain (photocopiable page 192) to label the seas and islands that surround Britain. Carry out some independent investigative work about life on the Shetland Islands or the Hebrides, located off the northern coast of Scotland.
3. Britain has oil and gas reserves in the North Sea. Pupils can investigate life on an oil-rig and find out about some British oil companies, e.g. British Petroleum.
4. Pair work: Each child needs a blank map of Europe (photocopiable on page 191). One child thinks of a European country and gives directions using the compass, e.g. *I'm thinking of a country directly south of England. A tunnel connects Britain to this country.* Both children label the correct country on their maps and compare. This can be carried out as a whole-class activity.
5. The Olympic Games were held in London in 2012. Children who have a particular interest in this area could create a multimedia presentation on the sports/countries/participants involved.
6. Write a reply to the letter from William (photocopiable on page 193), giving an outline of everyday life for a child in Ireland.

Katie Taylor, 2012 London Olympic Games

Differentiation – Less Challenging

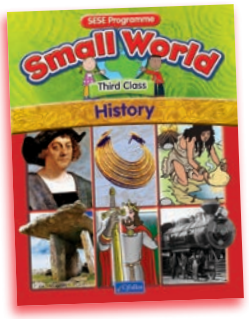
1. Design and make a tourist brochure on Britain. Pupils may use the 'two stars and a wish' (two things I like about my work and one thing I would change) form of self-assessment.
2. Pair work: Use a blank map of Europe (photocopiable page 191) and a globe to find/label various countries in the world.
3. Write an email or postcard in reply to the letter from William (photocopiable page 193).

Related Websites

www.woodlands-junior.kent.sch.uk/customs/questions/askus.htm	Life in Britain
www.scoilnet.ie	Links schools to Encyclopaedia Britannica – access to information about Britain
www.london2012.com	Official London 2012 Olympic Games website
www.bbc.co.uk/history/forkids/	BBC website providing an overview of the history of Britain

Linkage: **Geography Strand:** Human Environments, **Strand Unit:** People Living and Working in a Contrasting Part of Ireland – Children should compare and contrast life in their local area to life in Britain.

Integration: **History:** *Small World History* Unit 12: King Arthur and Excalibur. Read stories of other famous kings and queens in British history. Also, read about: the life of Granuaile, the Romans, the Celts, and the Olympic Games. **Literacy:** Reading material based on Britain from a geographical and historic perspective, e.g. WWII **Numeracy:** Use airline/train timetables to calculate journeys to and from major cities/countries.



Answers – Textbook

Page 55: 1. Britain encompasses Scotland, England and Wales. The United Kingdom is made up of Scotland, England, Wales and Northern Ireland. **2.** warm summers, cool winters, plenty of rainfall, no extremes of temperature **3.** roads, bathhouses and sewers **4.** Queen Elizabeth II visited Ireland (first monarch to visit Ireland since 1911) **5.** 10 Downing Street

Page 58: 4. There will be several answers for this question. Some of the following should be mentioned: **(a)** Same: Britain, Scotland, England and Wales are labeled. Northern Ireland is visible on both maps. Both maps have islands and seas labelled. London is shown on both maps. **(b)** Different: We can see the lakes, rivers and mountains on the physical map. The counties are visible on the political map. The political map has the names of major towns and cities.

Answers – Activity Book

Page 17: A. 1. A country that is ruled by another country: colony **2.** A group of people elected to make decisions for a country: government **3.** An area with lots of mountains: highlands **B. Across: 2.** coal **5.** November **6.** Guy Fawkes **7.** Scotland **Down: 1.** Hogmanay **3.** fireworks **4.** James **Page 18: A.** Mountain range: Grampian Mountains; City: Glasgow; River: Severn; City: Cardiff; Country: Wales; Country: England; River: Thames; Mountain range: Pennines; Country: Scotland **B.** The thistle is the national emblem of Scotland. It has been the traditional emblem of Scotland since 1400 AD. The leek is the national emblem of Wales. It has been the traditional emblem of Wales since Saint David advised the Welsh to wear it in battle, so that they would know who their friends were and who their enemies were. The rose is the national emblem of England. It has been the traditional emblem of England since the War of the Roses, which took place in the 1400s AD. **Page 19: D. 1.** Ireland **2.** France **3.** Spain **4.** Belgium **5.** Netherlands **6.** Germany **7.** Denmark **8.** Norway

Unit 10: Science and the World Around Us

January: 2nd Fortnight

Subject: Science **Strand:** Environmental Awareness and Care **Strand Unit:** Science and the Environment

Objectives

The child should be enabled to:

- Explore and appreciate the application of science and technology in familiar contexts.
- Identify some ways in which science and technology contribute positively to society.

Ref: Textbook p. 59

New Words

technology transmit submarine transporter

Lesson Kernel

The threads of this unit are as follows:

- The unit gives an overview of science and technology and their relevance for children, providing a timeline for inventors and their inventions. This will link to Fourth, Fifth and Sixth Class material.
- Some of the inventors are Irish, and both men and women are included.
- Pupils will gain an awareness of the background of some everyday objects with which they are familiar. They are encouraged to think about inventions of the future, and the impact they will have on our everyday lives.

Skills

- **Asking questions** about events in the immediate environment and their relationships
- **Collecting information** from a variety of sources, including observations in the environment
- **Interpreting** information and offering explanations
- **Drawing conclusions** from suitable aspects of the evidence collected, e.g. 'How have these inventions changed our lives?'
- **Analysing,** e.g. 'Which inventor do you think made the most important discovery?'

Working as a Scientist

In this unit, pupils gain an overview of how science and technology are used to improve our lives.

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Use the concept cartoon at beginning of the unit to encourage open-ended questioning. This can be used as a stimulus to find out what the children already know.
- Brainstorm inventors and their inventions. This can be expanded into a concept map and used for assessment of learning at the end of the lesson.

Assessment of Learning (Finding out what the pupils have learned)

- Use the concept cartoon at the beginning of the unit to stimulate conversation and compare and contrast with initial views the children had prior to the lesson.
- Use the concept map to link new words/ideas the children have in relation to the unit.

Differentiation – More Challenging

1. Write a detailed description/proposal of your own future inventions. Include pictures.
2. Imagine that you are one of the inventors in this unit. Write diary entries for a week, describing your work as an inventor.
3. Prepare a multimedia project focusing on one of the inventors in the unit or from recent times, outlining his/her work and invention.
4. Use the internet to research another Irish inventor, maybe from the local area.

Differentiation – Less Challenging

1. Pair work: Create your own Morse code messages for your partner to solve.
2. Draw or create a mould of your own future invention. You may include a written explanation.
3. Use ICT to create a poster/flyer advertising one of the 'new' inventions in the unit.
4. Use the internet to find out about another Irish inventor, maybe from your local area.

Related Websites

www.askaboutireland.ie/learning-zone/primary-students/3rd-+-4th-class/science/environment/
Resources for children relating to scientific advances

www.scoilnet.ie
Links schools to Encyclopaedia Britannica – access to information about inventors

www.bbc.co.uk Useful website for teachers and children regarding inventions

http://science.nationalgeographic.com
Useful website for teachers, providing information on all aspects of science

Linkage:

Science Strand: Living Things, **Strand Unit:** Human Life.

Science Strand: Environmental Awareness and Care, **Strand Unit:** Caring for the Environment

Integration: **Visual Arts:** Draw or create a mould of your own invention.

Answers – Textbook

Page 61: A. 1. John Logie Baird **2.** Alan Turing **3.** Marie Curie **4.** Mary Anderson

Page 63: A. 1. John Philip Holland **2.** submarine **3.** When he was a teenager, he went to work in his brother's car and cycle shop **4.** Massey Harris Company Toronto and Henry Ferguson **5.** The transporter would scramble your body's cells into thousands of tiny pieces and transport them to another location **C.** 'One small step for man, one giant leap for mankind'

Unit 11: Egypt

February: 1st Fortnight

Subject: Geography **Strand:** Human Environments **Strand Unit:** People and Other Lands

Objectives

The child should be enabled to:

- Study some aspects of the environment and the lives of people in a location in another part of the world.
- Develop an awareness of the interdependence of these people and the people in Ireland.
- Begin to develop a sense of belonging to local, county, national, European and global communities.

Ref: Textbook p. 68

New Words

Qur'an *fellahin* Allah Islam *Ramadan* mosque Bedouin Sahara Desert

Lesson Kernel

The threads of this unit are as follows:

- The unit focuses on life in Egypt, from the perspective of three children. Each child describes aspects of his/her daily life, allowing pupils to compare and contrast life in Egypt with life in Ireland.
- Islam is the main religion in Egypt, so most Egyptians are Muslim. They study the *Qur'an* and go to a mosque on Fridays to pray. *Ramadan* is the holiest month of the year. During *Ramadan*, Muslims fast between sunrise and sunset. After *Ramadan*, they have a three-day celebration called *Eid ul-Fitr*.
- Food and farming in Egypt are quite different to those in Ireland. Egyptian farmers are called *fellahin*. Fields are often ploughed using water buffalo. Pigeons are kept for their meat and eggs. Beans, wheat and corn are grown on the fertile banks of the River Nile.
- Pupils are given an overview of the significance of the River Nile in Ancient Egypt.

Skills

- **A sense of place:** Developing some awareness of the distinctive human and natural features of Egypt
- **A sense of space:** Developing some awareness of the relative location of Egypt
- **Engaging** in practical use of maps and globes, and developing some familiarity with common map features and conventions
- **Investigating** natural and human features and processes in Egypt and their interrelationships
- **Observing, discussing and describing** natural and human features and processes in Egypt and their interrelationships

Working as a Geographer

In this unit, pupils read maps and learn how people in Egypt interact with the environment.

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Ask the children to point out Egypt on a globe or world map.
- Brainstorm: Question the class on what they know about Egypt and create a concept map.
- Show pupils a blank map of Africa (photocopiable page 194) and ask them to label Egypt and some major features such as cities, the River Nile, seas and neighbouring countries.
- Ask pupils to make a list of things they would like to find out about Egypt. This list should be in question form, e.g. 'What types of food do Egyptians eat?'
- Ask pupils to create two columns on a page for 'Same' and 'Different' and write the ways in which they think Egypt will compare/contrast with their local area.

Assessment of Learning (Finding out what the pupils have learned)

- Revisit the concept map and use a new colour to add in what has been learned about Egypt.
- Ask pupils to label the major cities of Egypt, the River Nile, seas and neighbouring countries on a blank map of Africa (photocopiable page 194).
- Answer the questions pupils compiled before the lesson.
- Create a poster or brochure encouraging visitors to Egypt. Establish the following assessment criteria in advance. Pupils can assess their own or each other's work based on the rubric below:

	Content (quality of information about Egypt)	Layout	Attractiveness	Map work	Total
Marks	/5	/5	/5	/5	/20

- Ask pupils to write their own assessment questions based on the unit, which will then be completed by their peers.
- Conduct a table quiz (page 185) based on the information in this unit.

Differentiation – More Challenging

1. Write a story set in Egypt.
2. Use the internet to find out more about some of the aspects of this unit, e.g. Egyptian food. Findings could be presented to the class in project form.
3. Design a crossword or word search based on Egypt.
4. Build and decorate a pyramid.

Differentiation – Less Challenging

1. Draw a camel and write three facts about it.
2. Write a postcard that you would send to a friend at home while on holiday in Egypt.
3. Make a list of the places in Egypt that you would like to visit or the activities that you would like to do.
4. Design a tourist brochure encouraging people to come to Egypt.
5. Watch the film, *The Prince of Egypt.*
6. Ancient Egypt colouring pages: www.coloring.ws/egypt.htm

Related Websites

www.woodlands-junior.kent.sch.uk/Homework/Egypt.html
A simple introduction to Ancient Egypt

www.egypt.mrdonn.org/games.html Links to games and stories on Ancient Egypt

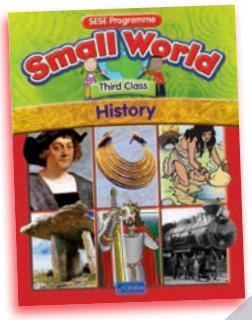
www.kidport.com/reflib/worldgeography/egypt/egypt.htm Geography of Egypt

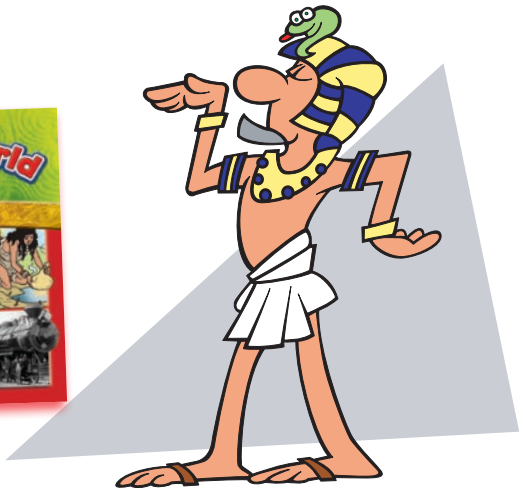
Linkage: Geography Strand: Human Environments, **Strand Unit:** People Living and Working in the Local Area

Integration: History: *Small World History* Unit 9: The Ancient Egyptians

Literacy: Write a letter to Zayed, Karim or Jamilla. Tell him/her about your life in Ireland and how different it is to his/her life in Egypt.

Numeracy: Egyptian numbers: www.egypt.mrdonn.org/math.html





Music: Song: 'Walk like an Egyptian' by the Bangles

Visual Arts: Stain paper with tea and decorate with hieroglyphs to create an Egyptian papyrus scroll.

Answers – Textbook

Page 69:

1. Alexandria, Port Said, Cairo, Al Minya, Asyut, Luxor, Aswan **2. (a)** 'hello' **(b)** Egyptian farmers **(c)** bread that is left out in the sun to bake **(d)** an Egyptian dish made with stewed beans, oil, lemon and spices **(e)** the holy book of Islam **(f)** Egyptian robes **(g)** an Egyptian dessert **(h)** foods that are allowed by the *Qur'an* **5.** for meat, eggs and fertilizer

Page 72:

A.1. bread called *aysh* **2.** a *sheik* **3.** the Sahara Desert

B. Most people in Egypt are Muslim. Their religion is called Islam. They go to the mosque on Friday and their holy book is the *Qur'an*. They go to a mosque to pray. Muslims are not allowed to eat pork. They can only eat *halal*, which are foods allowed by the *Qur'an*. During *Ramadan*, Muslims do not eat or drink from sunrise until sunset. When *Ramadan* is over, they have a celebration called *Eid ul-Fitr*. It lasts for three days.

Answers – Activity Book

Page 21: A. 1. false **2.** true **3.** true **4.** true **5.** false **6.** true

Unit 12: Rainforests

February: 2nd Fortnight

Subject: Geography
Strand: Environmental Awareness and Care
Strand Unit: Environmental Awareness

Subject: Science
Strand: Environmental Awareness and Care
Strand Unit: Environmental Awareness

Objectives

The child should be enabled to:

- Develop some awareness of the types of environment which exist in other parts of the world.
- Develop some awareness of the distinctive human and natural features of some places in other parts of the world.
- Recognise how the actions of people may have an impact on environments.

Ref: Textbook p. 73

New Words

equator tropical canopy extinct endanger humid decomposition nutrients tree felling

Lesson Kernel

The threads of this unit are as follows:

- Gaining knowledge of the location and climate of the world's rainforests
- Developing an awareness of the importance of rainforests in relation to animal and plant life, and their impact on our everyday lives
- Developing an understanding of rainforest environments as unique habitats
- Becoming familiar with some of the people and animals that live in rainforests
- Developing an awareness of environmental issues surrounding the destruction of rainforests

Skills

- Exploring the different layers of rainforests and the animals and people that live there
- Investigating the impact that rainforests have on our lives

Working as a Geographer

In this unit, pupils will use geographical investigation skills to find out more about rainforests and what makes them unique. Pupils will also use a map of the world to identify the locations of rainforests.

Rainforest floor

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Working alone or with a partner, pupils divide a page into three columns to create a KWL chart. Ask pupils to fill in the first two sections and feed this into a class KWL chart. This will stimulate discussion.
- Brainstorm what pupils know about rainforests and create a concept map.
- Locate the equator on a globe or blank map of the world (see Activity Book page 48). Ask pupils to mark the countries/continents in which they think rainforests lie.
- Show the children a short clip from the internet resources dealing with rainforests. Use this to ascertain what they know about rainforests.

Assessment of Learning (Finding out what the pupils have learned)

- Revisit the KWL chart and fill in the final column, with 'What I have learned'.
- Revisit the brainstorm/concept map. Add the additional information that has been learned.
- Pupils can divide their copy pages in two and compare rainforests to their locality under the headings 'Same' and 'Different'.
- Use the reflection template (photocopiable page 195) to carry out self-assessment of project work.

Differentiation – More Challenging

1. Pick one product whose raw material/s come/s from a rainforest and tell its story, e.g. 'The Story of Chocolate', either in written format or using ICT. This may be used to stimulate discussion around the topic of Fair Trade.
2. Investigate the role and work of the Rainforest Alliance.
3. Group work: Do a project on one of the world's rainforests.
4. Imagine that you are a scientist who has just discovered a plant in a rainforest that will be used to make a cure for the common cold. Write an email (50 words or less) to your colleagues explaining what has happened.
5. Create a rainforest display for the classroom. Include written extracts, drawings and fun facts about plants and animals. Use the reflection template (photocopiable page 195) to assess your own work.

Differentiation – Less Challenging

1. Make a list of some Rainforest Alliance companies.
2. Group work: Do a project on one of the world's rainforests.
3. Imagine that you are a scientist who has just discovered a plant in a rainforest that will be used to make a cure for cancer. Write a text (20 words or less) to your colleagues explaining what has happened.
4. Create a rainforest display for the classroom. Include drawings and fun facts.

Related Websites

www.kids.nationalgeographic.com/kids/photos/tropical-rainforests/
Information about rainforests

www.scoilnet.ie
Links schools to Encyclopaedia Britannica – access information about rainforests

www.rainforest-alliance.org/kids Official Rainforest Alliance website

www.askaboutireland.ie/learning-zone/primary-students/3rd-+-4th-class/3rd-+-4th-class-environme/caring-for-the-environmen/index.xml
Resources on caring for the environment in Ireland

Linkage: **Geography Strand:** Human Environments, **Strand Unit:** People and Other Lands
Science Strand: Living Things, **Strand Unit:** Plants and Animals

Integration: **Music:** Sounds of a rainforest: http://schools.rainforestsos.org/free-resources/rainforestmultimedia/rainforest-sounds
Children will create their own piece of music to represent different animals. **Visual Arts:** Awareness of colours and textures in the environment; construction of a rainforest

Howler monkey making 'rainforest music'!

Answers – Textbook

Page 74: 1. tropical areas, above and below the equator **2.** No, rainforests are warm and wet throughout the year. **3.** Some are used to make medicine. **4.** various, e.g. Australia; Mexico (North America); Brazil, Columbia, Peru (South America); Congo, Rwanda, Uganda (Africa); Indonesia, Malaysia, Thailand (Asia) **5.** All rainforests lie in tropical areas, have a canopy, get more than 1 metre of rain each year, and have millions of different types of plants and animals. **Page 77: A. 1.** The canopy is the top layer of all the trees. It can be up to 30 metres above the ground and it is made from overlapping branches and leaves. It is so dense that it blocks most of the sunlight from reaching the ground. During the day it is drier and hotter than any other part of the rainforest. Monkeys, lizards, sloths, jaguars, frogs and brightly-coloured birds live there. **2.** 'Lungs of the planet' – the trees recycle carbon dioxide and release oxygen. **3.** chocolate, nuts, coffee **4.** Buy Rainforest Alliance goods, re-use and recycle paper, use environmentally friendly paper, and inform others. **B. 1.** One-quarter of the medicines in the world come from the rainforests. **2.** Rainforests are home to animals, plants and people. **3.** People of the rainforests wear little or no clothing. **4.** The rainforests get smaller each year. **C. 1.** What type of houses do people in the rainforests live in? **2.** What happens to the animals in the rainforest when their homes are destroyed? **3.** What affect does tree felling have on rainforests?

Answers – Activity Book

Page 23: A. decomposition – when the remains of dead plants and animals rot; equator – an imaginary line that divides the Earth in half; nutrients – food; extinct – when the last of a type of a plant or an animal has disappeared; tropical zones – areas that are just above and below the equator; habitat – the home of a particular type of plant or animal; canopy – in a rainforest, this is like a roof made from branches and leaves; humid – when there is a lot of moisture or dampness in the air; endanger – threaten

C. 1. Venezuela **2.** Colombia **3.** Brazil **4.** Ecuador **5.** Peru

Unit 13: Sound

March: 1st Fortnight

Subject: Science **Strand:** Energy and Forces **Strand Unit:** Sound

Objectives

The child should be enabled to:

- Learn that sound is a form of energy.
- Recognise and identify a variety of sounds in the environment.
- Understand and explore how different sounds may be made by making a variety of materials vibrate.
- Explore the fact that sound travels through materials.
- Investigate how sound waves travel.

Ref: Textbook p. 78

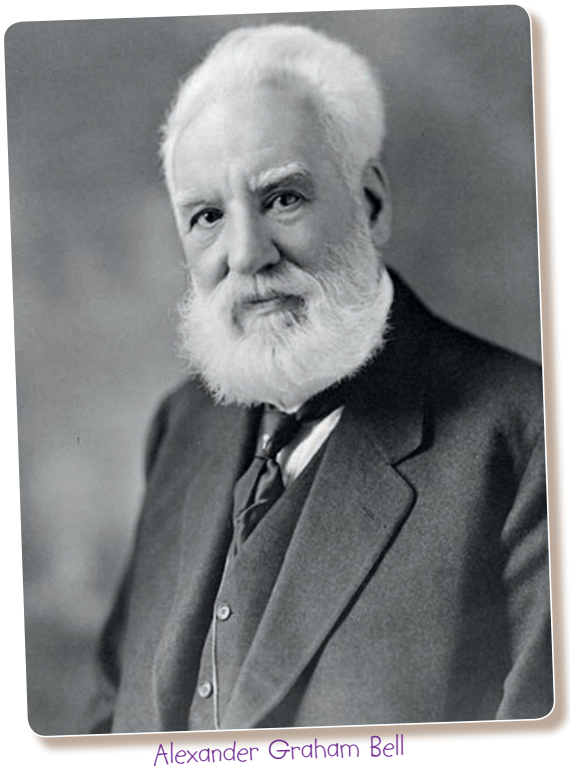
New Words

vibrate echolocation eardrum hammer and anvil sound waves decibels fluid

Lesson Kernel

The threads of this unit are as follows:

- Sound travels in waves. When the waves hit something, they bounce off it. When they bounce back at you, it is called an echo. Bats use echolocation to navigate their way at night. They send out high-pitched sounds, which bounce back off objects as echoes.
- Sound waves are collected by the ear. The waves make the eardrum vibrate, which makes a tiny bone called the hammer hit another tiny bone called the anvil. That vibration is sent to your brain as an electrical signal.
- Loud noise or music can damage hearing. The loudness of sound is measured in decibels, named after Alexander Graham Bell, who invented the telephone.
- The ears also affect balance. When you spin around and then stop, the fluid in your ear keeps moving. This is what causes dizziness.



Alexander Graham Bell

- Deaf people cannot hear sounds but they can feel vibrations. Deaf people use sign language to communicate.
- The speed of light is faster than the speed of sound. This is why you see lightning before you hear thunder.
- Sound does not travel in a vacuum; therefore there is no sound in space. Sounds travel better through solids than through air.

Skills

- **Investigating and experimenting:** Pupils will design, plan and carry out simple investigations and identify one or two obvious variables relevant to the investigations. They should also realise that an experiment is unfair if relevant variables are not controlled.
- **Observing and describing** processes during investigations
- **Predicting** and offering suggestions based on observations about the likely results of investigations
- **Questioning:** Pupils should be encouraged to ask questions about sound and to think about its role in the world. During investigations and Design and Make activities, they should ask questions to identify problems and draw conclusions.
- **Analysing:** Pupils will sort and group objects related to recorded sound into chronological order.
- **Exploring:** As part of the Design and Make activity, pupils will: explore a range of everyday objects and how they work; explore freely how a range of shapes and objects could be made using a variety of materials; explore how some objects might be improved or adapted.
- **Planning:** As part of the Design and Make activity, pupils will: recognise a need to adapt or change an object; work collaboratively to create a design proposal; communicate and evaluate the design plan using sketches.
- **Making:** As part of the Design and Make activity, pupils will: develop craft-handling skills and techniques; use appropriate tools and a range of materials.
- **Evaluating:** As part of the Design and Make activity, pupils will: recognise that modifications to the plan may have to be made throughout the task; evaluate the effectiveness of the new product and suggest modifications to the task; evaluate the work of peers and propose positive modifications.

Working as a Scientist

In this unit, pupils will carry out a range of investigations to develop a hands-on knowledge of sound.

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Before the lesson, brainstorm all the things pupils currently know about sound. Create a concept map of these findings.
- Ask pupils to make a list of things they would like to know about sound. Do this by writing questions, e.g. 'How is sound measured?'

Assessment of Learning (Finding out what the pupils have learned)

- Revisit the concept map and add in new words/ideas the pupils have learned.
- Set the criteria for a successful Design and Make activity in advance. For example, a good musical instrument is one on which you could play the tune of 'Three Blind Mice', and which is strong/durable, nicely decorated and loud enough to be heard from a distance. Marks can be allocated as follows, so that each group's design can be assessed:

	Tune	Strength/durability	Decorations	Level of sound	Total
Marks	/5	/5	/5	/5	/20

Differentiation – More Challenging

1. Use the internet to make a list of other creatures that use echolocation.
2. Design and make a set of drums.
3. Compose and play a tune with your homemade instruments.

The bottlenose dolphin uses echolocation.

Differentiation – Less Challenging

1. Draw a picture of a bat and write three sentences on how it uses echolocation to navigate.
2. Make loud and high-pitched sounds: www.sciencekids.co.nz/gamesactivities/changingsounds.html.

Related Websites

www.neok12.com/Sound.htm	Videos for children about sound
www.sciencekids.co.nz/sound.html	Experiments, videos, facts and lessons about sound
http://homepage.eircom.net/~kogrange/sound_experiments.html	Sound experiments
www.science.pppst.com/sound.html	PowerPoint presentations for teachers about sound
www.brighthubeducation.com/study-and-learning-tips/51228-sound-activites-for-kids/	Sound activities for children

Linkage: **Science Strand:** Living Things, **Strand Unit:** Human Life

Integration: **History:** The history of recorded sound

Numeracy: Number concepts and operations – comparing the decibels of various appliances; use of data-tables

Music: Exploring sounds; sign the ABC song – www.squidoo.com/signlanguagesongs.

Visual Arts: Design a musical instrument.

Answers – Textbook

Page 80: A. Sound is caused by a moving object making the air vibrate. The vibrations are called sound waves. The waves travel into our ears and make our eardrums vibrate. This makes a tiny bone called the hammer strike another tiny bone called the anvil. Those vibrations are sent to our ears as an electrical signal. You can improve your hearing by using an ear trumpet. It was used before the hearing aid was invented. You can use a glass to hear through a closed door.

Page 82: A. 1. The loudness of sound is measured in decibels or dB, named after Alexander Graham Bell, who invented the telephone. Listening to any sound over 90 decibels for a long time could damage your hearing.

2. Deaf people can talk to each other using sign language.

3. A bat uses echolocation to help it to find its way in the dark. It makes sounds so high-pitched that a human cannot hear them. When the sound waves hit an object, an echo bounces back. The bat collects the echo with its ears. The bat can tell what the object is by the sound of the echo.

4. There is no air in space, so there is no sound in space.

5. Native Americans knew that sound travelled better through solids than through air. By putting their ears to the ground, they could hear the hoof-beats of horses long before they heard the sound travelling through the air.

6. An ear trumpet helps you to hear. It was used before the hearing aid was invented.

7. During a storm, we always see the lightning before we hear the thunder, because light travels faster than sound. To find out how far away a thunderstorm is, count the number of seconds between the flash of lightning and the sound of the thunder. Divide your answer by 3 and you will get a good estimate of the distance in kilometres.

8. Evelyn Glennie is a world-famous drummer who is deaf. She makes music by feeling the vibrations made by her instruments.

B.

Sound	Decibel level
breathing	10
rustling leaves	20
bird calls	40
vacuum cleaner	70
motorbike	100
jet take-off	150

Answers – Activity Book

Page 24: A. 1. The hammer hits this bone in your ear: anvil **2.** Sound waves make this part of your ear vibrate: eardrum **3.** Sound makes the air do this: vibrate **4.** A tiny bone in your ear that hits the anvil: hammer

C. Across: 5. Evelyn Glennie **8.** Apple **9.** space **10.** compact disc
Down: 1. Sony **2.** decibel **3.** anvil **4.** telephone **5.** echolocation **6.** earplugs **7.** waves

Unit 14: The Human Body

March: 2nd Fortnight

Subject: Science **Strand:** Living Things **Strand Unit:** Human Life

Objectives

The child should be enabled to:

- Explore and investigate how humans move.
- Develop an awareness of the importance of food for energy and growth.

Ref: Textbook p. 83

New Words

joints nerves cartilage stirrup femur calcium
bone marrow plaster cast X-ray ball and socket

More New Words

carbohydrates protein enamel incisors canines premolars molars cavities

Lesson Kernel

In this unit, pupils will:

- Gain an understanding of the human skeleton.
- Become familiar with the names of various bones.
- Become aware of the important role of muscles and joints.
- Receive an introduction to bone structure and the use of X-rays.
- Become aware of the food pyramid and the need to adopt a healthy lifestyle in relation to food and exercise.
- Become aware of the food groups and their nutritional value.
- Become familiar with the role of teeth and dental hygiene.

Skills

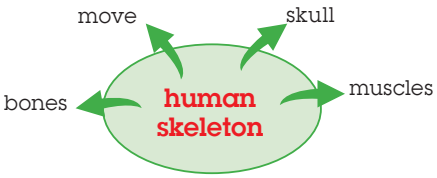
- **Interpreting** information and offering explanations
- **Drawing conclusions** from suitable aspects of the evidence collected
- **Recording and presenting** findings and conclusions using a variety of methods – oral and written accounts, charts, diagrams and presentations

Working as a Scientist

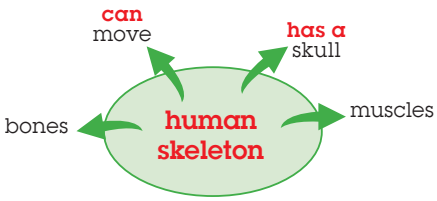
In this unit, pupils will interpret information and offer explanations.

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Create a concept map. Write the title 'human skeleton' on the flipchart/board/IWB. Pupils are then invited to give the teacher words relating to the human skeleton. These are recorded on the board.



- When this initial part of the activity is complete, pupils are asked to form sentences using the words they have given to the teacher as well as smaller link words.



- As pupils become more familiar with this assessment tool, they can work in groups to create their own individual concept maps.

Assessment of Learning (Finding out what the pupils have learned)

At the end of the unit the pupils refer to the concept map once again and record the new words and concepts that they have now learned in relation to the human skeleton.

Differentiation – More Challenging

Investigate: Test the Strength of Bone

You will need: A cooked chicken leg-bone, jar of vinegar

Method:

1. Place the bone in the jar of vinegar and leave it for a week.
2. After a week, remove the bone from the jar and test to see if the bone is flexible/pliable. The bone should bend, as the vinegar dissolves the calcium within the bone, making it pliable.

- Keep a food diary detailing the food that you eat over a day. Compare this with the food pyramid.

Differentiation – Less Challenging

1. Design a poster for your classroom to promote healthy eating, focusing on 'five a day'.
2. Use ICT to create a leaflet to promote healthy eating and to explain the effects of healthy eating on the body.

Related Websites

www.scoilnet.ie Links schools to Encyclopaedia Britannica – access to information about the human body

www.askaboutireland.ie/learning-zone/primary-students/3rd-+-4th-class/science/bones-bodies-and-movement/ Facts about bones, the body and movement

www.columbiascientific.com/science-for-kids/kid-science-stanley-the-skeleton-full Stanley the Skeleton assists children in learning more about their bodies

Linkage: **Science Strand:** Living Things, **Strand Unit:** Plants and Animals

Integration: **Literacy:** Oral language development; writing across the curriculum

Music: Song: 'Dem Bones' – www.youtube.com/watch?v=OtOGLETMNnk

Visual Arts: Make a skeleton activity – www.learnenglishkids.britishcouncil.org/en/category/topics/human-body

Answers – Textbook

Page 85: A. 1. Joints allow your skeleton to bend and move. **2.** **(a)** hinge joints: elbow, knee, finger; ball-and-socket joints: shoulder, hip **(b)** the ball-and-socket joint in your shoulder/hip allows you to rotate your arm/leg; the hinge joint(s) in your elbow/knee/fingers allow(s) you to lift things/walk/grasp things with your hand **3.** **(a)** ribs/chest **(b)** toes/foot **(c)** ankle/foot **(d)** shoulder **(e)** knee **B. 1.** The femur is the longest bone in your body and it is located in your leg/thigh. **2.** You had about 300 bones when you were born and as you grow, some of our bones join together until you finally have 206. **3.** The joints in your body help it to move. Your body has about 100 joints. **Page 87: A. 1.** Food gives you energy. It helps your body to keep your heart beating, your lungs breathing and your muscles and joints moving. **2.** eating fresh fruit, vegetables and meat (or meat alternatives) **3.** **(a)** provides carbohydrates needed for energy **(b)** provide vitamins needed for healthy muscles and skin, and to fight infection **(c)** provides calcium needed for healthy bones **(d)** provides protein needed for growth and repair of cells **4.** Fruit and vegetables provide vitamins needed for healthy muscles and skin, and to fight infection. Crisps and chocolate provide lots of fat and sugar, which are not good for our bodies. **B. 1.** What is the white substance that covers teeth? **2.** How strong is enamel? **3.** Where are the canine teeth located and what are they used for? **4.** What did people use to clean their teeth before toothpaste was invented? **5.** What are the little holes in tooth enamel called?

Answers – Activity Book

Page 25: B. Your teeth are located in your jaws. There are four main types of teeth. They are covered by a white material called enamel. Teeth have rough edges that help you to chew food. Your incisors are at the front of your mouth. They have a straight, sharp edge for biting through food. Your canines are located beside your incisors. Your canines are used for pulling and tearing food. Your molars and premolars are located towards the back of your jaw. They are used to crush food.

Unit 15: Electricity

April: 1st Fortnight

Subject: Science **Strand:** Energy and Forces
Strand Unit: Magnetism and Electricity

Subject: Geography **Strand:** Human Environments
Strand Unit: People Living and Working in the Local Area

Objectives

The child should be enabled to:

- Explore the effects of static electricity.
- Observe the effects of static electricity on everyday objects in the environment.
- Learn about electrical energy.
- Investigate current electricity by constructing simple circuits.
- Examine and group materials as conductors (those that conduct electricity) and insulators (those that do not allow electricity to pass through).
- Become aware of the dangers of electricity.

Ref: Textbook p. 88

New Words

mains current fossil fuels power station turbines solar cells geothermal
pylons batteries volts circuit terminals switch conductors insulators

Lesson Kernel

In this unit, pupils will learn:

- About the various ways in which electricity is made: hydroelectricity, wind energy, solar power, geothermal energy and tidal power.
- About how electricity travels to our homes.
- That electricity is measured in volts and that every battery has a positive and negative terminal.
- How thunderstorms are caused.
- How to make a circuit and a switch.

Pupils will investigate:

- If materials are conductors or insulators.
- How a circuit works.
- How a switch works.
- How static electricity works.

Wind farm

Skills

- **Investigating and experimenting:** Pupils will design, plan and carry out simple investigations and identify one or two obvious variables relevant to the investigations. They should also realise that an experiment is unfair if relevant variables are not controlled.
- **Observing and describing** processes during investigations
- **Predicting** and offering suggestions based on observations about the likely results of investigations
- **Questioning:** Pupils should be encouraged to ask questions about electricity and to think about its role in the world. During investigations and Design and Make activities, they should ask questions to identify problems and draw conclusions.
- **Analysing:** Pupils will sort and group objects into the following categories: (1) If they are conductors or insulators; (2) Whether they produce movement, light, heat or sound.
- **Recording and communicating:** Pupils will record the results of the insulator/conductor investigation on a table in the Activity Book.
- **Exploring:** As part of the investigations, pupils will: explore a range of everyday objects and how they work; explore freely how a range of shapes and objects could be made using a variety of materials; explore how some objects might be improved or adapted.
- **Planning:** As part of the investigations, pupils will: recognise a need to adapt or to change an object; work collaboratively to create a design proposal; communicate and evaluate the design plan using sketches.
- **Making:** As part of the investigations, pupils will: develop craft-handling skills and techniques; use appropriate tools and a range of materials.
- **Evaluating:** As part of the investigations, pupils will: recognise that modifications to the plan may have to be made throughout the task; evaluate the effectiveness of the new product and suggest modifications to the task; evaluate the work of peers and propose positive modifications.

Working as a Scientist

In this unit, pupils will carry out a range of investigations to develop a hands-on knowledge of electricity while being aware of, and adopting, safe practices at all times.

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Before the lesson, brainstorm all the things pupils currently know about electricity. Create a concept map of the findings.
- Ask pupils to make a list of things they would like to know about electricity. Do this by writing questions, e.g. 'How is electricity measured?'

Assessment of Learning (Finding out what the pupils have learned)

- Revisit the concept map and add in new words/ideas pupils have learned.
- Ask pupils to draw two rooms: one that shows electricity being used safely and one that shows electricity being used unsafely.

Differentiation – More Challenging

1. Use the internet to find out how nuclear power can be used to generate electricity. Present your findings to the class.
2. Use the internet to find out about some famous lightning strikes.
3. Use the internet to find out about Alessandro Volta.

Differentiation – Less Challenging

Use the internet to find out about Roy Sullivan. Draw a picture of him and write two sentences about him.

Related Websites

www.switchedonkids.org.uk/ Information about electricity and how to use it safely

www.vrml.k12.la.us/curriculum/quicktip/science/electricity/elec.htm
Links to interactive electricity activities

www.woodlands-junior.kent.sch.uk/revision/Science/electricity.htm
Electricity games and activities

www.sciencekids.co.nz/electricity.html
Games, experiments, projects, videos, images, quizzes, lessons and facts about electricity

Linkage:

Science Strand: Environmental Awareness and Care, **Strand Unit:** Environmental Awareness

Geography Strand: Natural Environments, **Strand Unit:** Land, Rivers and Seas of My County (the hydroelectric power plant at Ardnacrusha)

Integration:

History: The history of the light bulb.

Numeracy: Number concepts and operations – comparing the voltage/energy efficiency of various appliances; use of data-tables

Music: Electronic music

Answers – Textbook

Page 92:
A. 1. static electricity **2.** pylon **3.** insulator **4.** switch **5.** Water and electricity are very dangerous together.
B. Lightning is caused by static electricity. When pieces of ice rub together inside a storm cloud, the cloud becomes charged. The charge is released as a flash of lightning. Lightning hits the Earth 100 times every second. Every year, 24,000 people die from lightning strikes. Roy Sullivan, a US National Park Ranger, was struck by lightning seven times. Many tall buildings have a lightning conductor to protect them from lightning.

Unit 16: The Sun

April: 2nd Fortnight

Subject: Geography **Strand:** Natural Environments
Strand Unit: Planet Earth in Space

Subject: Science **Strand:** Energy and Forces
Strand Unit: Heat

Objectives

The child should be enabled to:

- Observe, describe and record the positions of the sun when rising and setting, and the changing lengths of day and night during the seasons.
- Investigate shadows, directions and sunlight.
- Understand the importance of sunlight for plants and animals.
- Become aware of the dangers of sunlight for skin and eyes.

Ref: Textbook p. 93

New Words

supernova galaxy Solar System hydrogen helium winter solstice eclipse

More New Words

opaque transparent sundial carbon dioxide
photosynthesis blood vessel ultraviolet siesta

Lesson Kernel

The threads of this unit are as follows:

- The sun is a star. Stars are born, live for a while, and then die. The sun is one of the stars that make up our galaxy, the Milky Way. The Solar System was created when a giant star exploded. This explosion is called a supernova.
- It takes the Earth 365¼ days to orbit the sun. This is what makes a year. The quarter days are discounted, but every four years, an extra day is added to make a leap year. The Earth is also spinning. It takes 24 hours for the Earth to do a complete spin. This is what makes day and night.
- During our summer, the North Pole faces towards the sun, so we get more daylight and longer days. During our winter, the North Pole faces away from the sun, giving us shorter days.
- The Solar System used to be said to consist of nine planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune and Pluto. Recently, scientists decided that Pluto was too small to be a planet. It is now classed as a dwarf planet.
- Children will learn some facts about each of the planets in the Solar System.
- Objects that block the light are called opaque. They cast a shadow. A sundial is a clock that uses a shadow cast by the sun to show the time.
- Plants use sunlight to make food. This process is called photosynthesis.
- Plants move towards the sun. A sunflower will follow the path of the sun, and ivy will climb a tree or house to get closer to the sun.
- Animals and people need the sun to make vitamin D.
- Too much sun can be dangerous. It can cause sunburn or even skin cancer. You should always protect yourself from the sun by wearing sunscreen, sunglasses, a hat and clothes that cover your skin.
- White reflects the sun. This is why houses in hot countries are often white. Black attracts the heat.

Skills

- **A sense of place:** Developing some awareness of the distinctive human and natural features of the world
- **A sense of space:** Developing an understanding of the relative location and size of major natural features
- **Using pictures, maps and globes:** Developing some familiarity with, and engaging in practical use of, the 'map' of the Solar System
- **Asking questions** about natural and human features and processes in the environment and their interrelationships
- **Observing, discussing and describing** natural and human features and processes in the environment and their interrelationships
- **Offering suggestions** based on observations about the likely results of an investigation
- **Investigating** and collecting information from a variety of sources
- **Recognising patterns** and relationships in the environment
- **Interpreting** information and offering explanations
- **Drawing conclusions** from suitable aspects of the evidence collected
- **Recording and presenting** findings and conclusions

Working as a Geographer

In this unit, pupils will use geographical investigation skills to find out more about the sun. Pupils will also use a diagram of the Solar System to identify the location of the sun.

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Show the children a blank diagram of the Solar System (photocopiable page 196) and ask them to point out the Earth, the sun and any other planets they know.
- Ask pupils to draw a picture of the sun and brainstorm all the things they currently know about the sun.
- Ask pupils to make a list of things they would like to find out about the sun. This list should be in question form, e.g. 'How old is the sun?'
- Ask pupils to make a list of answers to this following question: 'What use is the sun?'

Assessment of Learning (Finding out what the pupils have learned)

- Revisit the class brainstorm about the sun. Use another colour to include any extra information that was learned.
- Answer the questions pupils compiled before the lesson.
- Pupils should be able to add more answers to the question posed prior to the lesson: 'What use is the sun?'
- Ask pupils to write their own assessment questions based on the unit, which will then be completed by their peers.
- Conduct a table quiz based on the information in this unit (page 187).

Differentiation – More Challenging

1. Make a model of the Solar System.
2. Write a science-fiction story about a visit to a place in the Solar System.
3. Make shadow puppets and write and perform a play for your class.

4. Use the internet to find out more about some of the features of this unit, e.g. sun safety and sundials. Findings could be presented to the class in project form.
5. Choose a planet and research it. Findings could be presented as a project in a scrapbook, poster or slideshow.

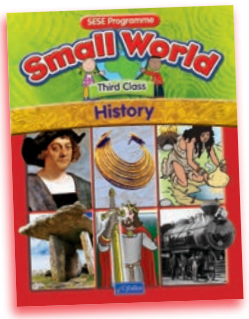
Differentiation – Less Challenging

1. Draw a diagram of the Solar System and write one fact about each planet.
2. Plant seeds.
3. Draw or make a sundial.

Related Websites

www.kidsastronomy.com/solar_system.htm Information about the Solar System
http://solarsystem.nasa.gov/kids/index.cfm Interactive activities based on the Solar System
www.neok12.com/Sun.htm Videos about the sun
www.sciencekids.co.nz/gamesactivities/lightshadows.html Interactive activity based on shadows

Linkage: **Science Strand:** Energy and Forces, **Strand Unit:** Light



Integration: **History:** *Small World History* Unit 2: The Stone Age (worshipping sun gods, summer and winter solstices, Newgrange); Unit 8: Saint Brendan, Unit 15: Christopher Columbus, and Unit 17: Tom Crean (navigation using the sun) **Numeracy:** 3D shapes – spheres; computations regarding planet sizes and distances, length of days, numbers of moons – comparisons could be shown on graphs **Music:** Song: 'Mr Sun' – www.dltk-teach.com/rhymes/mr-sun/song.htm **Visual Arts:** Sun handprint craft – www.dltk-holidays.com/summer/msun.htm

Answers – Textbook

Page 95: A. The sun is about 4.5 billion years old. It is part of a galaxy called the Milky Way. It was born when a huge star exploded. This is called a supernova. It takes the Earth 365¼ days to move around the sun. The Earth is also spinning. It takes the Earth 24 hours to do a complete spin. That makes day and night. In summer, days are longer, but in winter they are shorter.

Page 97: A. 1. opaque **2.** The sun rises in the east and sets in the west. **3.** The sundial was one of the first clocks. Its symbols stand for times of the day. The sun shines on the pointer and a shadow is cast. The shadow moves as the sun's position in the sky changes. **4.** photosynthesis **5.** It shivers. **6.** because white reflects the heat

Answers – Activity Book

Page 27: A. supernova – an explosion of a star; galaxy – a group of stars; helium – a gas in the sun; opaque – does not allow light to pass through; transparent – allows light to pass through; solstice – the longest or shortest day of the year; photosynthesis – how a plant makes food with light, water and carbon dioxide; ultraviolet – a type of light that comes from the sun

Page 28: A. Across: 2. Milky Way **4.** eclipse **6.** Mercury **8.** June **11.** Pluto **12.** December **Down: 1.** hydrogen **2.** Mars **3.** supernova **5.** carbon dioxide **7.** transparent **9.** sundial **10.** oxygen **13.** east **B. 1.** Saturn **2.** Venus **3.** Earth **4.** Mars **5.** Saturn **C. Top:** Mercury, Earth, Jupiter, Saturn, Neptune **Bottom:** Venus, Mars, Uranus, Pluto

Unit 17: Heat

May: 1st Fortnight

Subject: Science **Strand:** Energy and Forces/Materials
Strand Unit: Heat (linked to Materials and Change)

Subject: Geography **Strand:** Natural Environments
Strand Unit: Weather, Climate and Atmosphere

Objectives

Ref: Textbook p. 100

The child should be enabled to:

- Learn that heat can be transferred.
- Recognise that temperature is a measurement of how hot something is.
- Measure changes in temperature using a thermometer.
- Measure and compare temperature in different places in the classroom, school and environment, and explore the reasons for variations.
- Understand that the sun is Earth's most important heat source.
- Identify ways in which homes, buildings and materials are heated, e.g. radiators, cookers, kettles.

New Words

friction	magma	geyser	artificial	thermometer
temperature	Celsius	Fahrenheit	absorb	evaporate

Lesson Kernel

The threads of this unit are as follows:

- Pupils will observe the melting and cooling process involved in making rice crispy buns as an introduction to the topic of heat.
- Heat has natural and artificial sources. The sun is the ultimate source of heat on Earth.
- Heat can travel easily through certain materials, which are known as conductors. Saucepans and radiators are made from metals, as these are good conductors of heat.
- Heat cannot travel easily through certain materials, which are known as insulators. Handles of saucepans are made from plastic, to prevent us from burning our hands.
- A thermometer is used to measure temperatures in degrees Celsius. Measuring temperatures can be very important for health and safety reasons.
- Some materials change when heated, e.g. chocolate melts, air rises, water evaporates, etc.
- Changes caused by heat can be reversible or irreversible.
- Animals and humans have devised ways to keep cool, as excessive heat is dangerous.
- Heat is important for the growth of plants, and greenhouses can increase the rate of growth.

Skills

- **Questioning:** Pupils are encouraged to think and question each investigation, and also to ask and respond to questions about the effects of heat in our everyday lives. Pupils should be encouraged to pose their own questions to each other. Extension questions ('tests') are posed with selected investigations, which could lead to further investigations.
- **Observing:** Pupils will closely observe each investigation.
- **Predicting:** Pupils should be given the opportunity to predict what will happen in each investigation before commencing. Their predictions should be recorded for discussion later.
- **Investigating and experimenting:** Pupils should be encouraged to design and plan one of the suggested investigations and to identify one or two variables, e.g. trying different lengths of metal spoon to see if heat is conducted at different rates through each.
- **Estimating and measuring:** Pupils will measure heat using non-standard and standard units.
- **Analysing:** e.g. sorting sources of heat into natural or artificial, and materials into conductors or insulators of heat
- **Recording and communicating:** Pupils will fill in record sheets for investigations in the Activity Book. Investigations can also be recorded in picture format in the pupils' copybooks, with a short narrative description of what happened. Use a digital camera to record the sequence of each investigation, and produce a class poster or multimedia story. Pupils can record the stages of an investigation on the 'Investigation Sheet: Working as a Geographer or Scientist' (Activity Book page 43) and the 'Investigation Record Sheet' (Activity Book page 44). Both worksheets may be photocopied.

Working as a Scientist

In this unit, pupils will carry out the following investigations to develop a hands-on knowledge of heat while being aware of, and adopting, safe practices at all times:

- Which Spoon Should Be Used for Cooking? (Textbook page 101)
- What Happens When Materials Are Heated? (Textbook page 101)
- Which Part of Your Classroom Is Coolest? (Textbook page 103)
- What Happens When Air Is Heated? (Textbook page 104)

Pupils will make:

- Chocolate Rice Crispy Buns (Textbook page 100)
- A Mini Greenhouse (Textbook page 104)

Assessment for Learning (Finding out what the pupils know *before* the unit)

Before the lesson, brainstorm all the things pupils currently know about heat. Create a concept map of the findings.

Assessment of Learning (Finding out what the pupils have learned)

- Revisit the concept map and add in new words/ideas the pupils have learned.
- Ask pupils to draw a series of labelled pictures to describe how heat and cold are used in making rice crispy buns. Pupils can assess their own or each other's work based on the rubric below:

	Content (quality of information)	Pictures	Labels	Layout	Total
Marks	/5	/5	/5	/5	/20

- **Problem solving:** Ask pupils to design (draw) a suitable outfit for a teddy/doll going on holiday to a hot country. If possible, supply fabric samples to choose from, which can be stuck onto pictures. Pupils who understand the concept of how to keep cool will choose the correct fabrics.

Differentiation – More Challenging

1. Complete the 'tests' in the investigation, 'Which Spoon Should Be Used for Cooking?' (Textbook page 101) and present your findings to the class.
2. Complete the 'tests' in the investigation, 'Which Part of Your Classroom Is Coolest?' (Textbook page 103) and present your findings to the class.
3. Carry out independent research to find out how animals keep warm or cool in different climates.
4. Find out about the different ways in which homes in Ireland are heated.
5. How does insulation work? Find out about the ways in which homes are heated or kept cool around the world. Present your findings in a multimedia presentation, e.g. using Photo Story or PowerPoint.

Differentiation – Less Challenging

1. Find out five interesting facts about the sun.
2. Tell the class about the greenhouse effect.
3. Make paper snakes. Hang half of them over a cold radiator and the other half over a warm radiator. Observe the difference. (Snakes hung over the warm radiator will 'dance' because of the rising warm air.)
4. Design and make a fan.

Cold-blooded animals lie in the sun to warm up.

Related Websites

www.bbc.co.uk/schools/scienceclips/teachersresources/ages8_9/tr_keeping_warm_lp.shtml
Interactive experiment to show the effectiveness of various materials as insulators of heat

www.sciencekids.co.nz/gamesactivities/statematerials.html
Interactive experiment to show the effects of temperature on water

www.bbc.co.uk/schools/ks2bitesize/science/materials/
Interactive game using heat to melt snow for survival in the Arctic

www.seai.ie/Schools/Primary_Schools/Resources_Available/Lessons_Plan/Dont_Lose_Your_Cool_Lesson_plan.pdf
Experiments and worksheets on heat from Sustainable Energy Ireland

http://tiki.oneworld.net/energy/energy2.html
Cartoon showing how the energy from the sun fuels the Earth

http://video.nationalgeographic.com/video/environment/environment-natural-disasters/volcanoes/volcanoes-101/ Video clip about volcanoes

http://video.nationalgeographic.com/video/kids/cartoons-tv-movies-kids/iggy-arbuckle-kids/fought-laundromat-iggy-kids/ Cartoon about geysers

www.youtube.com/watch?v=-ajqiPe_9Ko&feature=related
Cartoon explaining how geothermal heating works

www.youtube.com/watch?v=W5teyd8srp8
Cartoon explaining temperature and how a thermometer works

www.sandiegozoo.org/animalbytes/t-polar_bear.html
Facts and a video clip about polar bears and how they keep warm

www.kids.nationalgeographic.com/kids/animals/creaturefeature/african-elephant/
Facts about African elephants

http://coolcosmos.ipac.caltech.edu/image_galleries/ir_zoo/coldwarm.html
Information and facts about warm- and cold-blooded animals

www.ehow.com/video_4951962_make-paper-fan.html
Video instructions on how to make a paper fan

http://video.answers.com/how-to-make-a-mini-greenhouse-with-your-kids-126147301
Video instructions on how to make a mini greenhouse

www.pbskids.org/dragonflytv/show/balloon.html
Video showing how a hot-air balloon works, plus experiments

Linkage: **Science Strand:** Materials, **Strand Unit:** Properties and Characteristics of Materials – Many of the objectives are similar to those in this unit, e.g. heating and cooling.

Geography Strand: Environmental Awareness and Care, **Strand Unit:** Environmental Awareness – the greenhouse effect

Geography Strand: Natural Environments, **Strand Unit:** Weather, Climate and Atmosphere

Integration: **Numeracy:** Number concepts and operations – comparison of temperatures recorded, measurement, use of data-tables

Visual Arts: Construction – Design and make a mini greenhouse, or a fan.

Answers – Textbook

Page 102: A. 1. the sun **2.** cooker, grill, oven, toaster, kettle **3.** radiators, CD player, lights, pipes **4.** a material, e.g. metal, through which heat can travel easily **5.** magma **6.** under the ground

Page 104: A. 1. thermometer **2.** Celsius **3.** 100 degrees Celsius **4.** zero degrees Celsius **5.** doctor's surgery, kitchen, science laboratory, greenhouse **6.** It rises.

B. 1. (a) hides away in a shady area, opens its mouth wide, lightens its skin colour or burrows into cool soil **(b)** sheds some of its fur in summer, pants **(c)** large, thin ears allow it to lose heat from its body quickly **(d)** opens its mouth wide or lazes in the water **2.** sweating, using a fan, swimming, wearing light clothes

Answers – Activity Book

Page 29: C. 1. cook/fry **2.** chips/crispy **3.** bread/pastry **4.** melt

Page 30: A. nurse, doctor, vet, horticulturist, farmer, meteorologist, chef…

B. spring – 12 degrees Celsius (12 °C); summer – 24 degrees Celsius (24 °C); winter – 2 degrees Celsius (2 °C)

Page 31: B. Across: 4. thermometer **7.** sun **8.** doctor **9.** melt **10.** artificial
Down: 1. greenhouse **2.** geyser **3.** Celsius **5.** conductor **6.** friction **9.** magma

Unit 18: Materials

May: 2nd Fortnight

Subject: Science **Strand:** Materials
Strand Unit: Properties and Characteristics of Materials

Subject: Geography **Strand:** Human Environments
Strand Unit: People Living and Working in the Local Area (Homes and Other Buildings)

Objectives

The child should be enabled to:

- Identify common materials used in the immediate environment.
- Describe and compare materials.
- Distinguish between raw and manufactured materials.
- Group materials according to their properties.
- Investigate how materials may be used.

Ref: Textbook p. 105

New Words

vinyl synthetic appliance manufacturing moulded smelting alloy

Lesson Kernel

In this unit, pupils will:

- Identify and investigate a range of common materials used in the immediate environment: water, air, rock, fabrics paper, metal, wood, plastic and food.
- Describe and compare materials, noting differences in colour, shape and texture.
- Distinguish between raw and manufactured materials.
- Group materials according to their properties: flexibility, transparency, magnetism, conductivity or insulation properties, strength, shape, ability to muffle sound, perishable or non-perishable, and solubility.
- Investigate how materials may be used in the construction of homes and other buildings and structures, furniture, models and everyday appliances.

Skills

- **Questioning:** Pupils are encouraged to ask questions about materials in the immediate environment and pose questions that will identify problems to be solved, e.g. 'Are all materials waterproof?'
- **Observing and describing** natural and man-made materials in the immediate environment; characteristics such as shape, size, colour, pattern and texture, and interrelationships of elements
- **Analysing** materials to sort and group them according to their properties
- **Presenting data** in sets and subsets

Chairs are made using a variety of materials.

- **Recognising patterns**, interpreting information and offering explanations
- **Investigating and experimenting:** Pupils will design, plan and carry out simple investigations.
- **Predicting** likely outcomes and offering suggestions (hypotheses) based on observations about the likely results of investigations
- **Drawing conclusions** from suitable aspects of evidence collected
- **Recording and communicating:** Pupils will record and present findings and conclusions using a variety of methods, e.g. oral and written accounts.

Working as a Scientist

- Assemble bags full of objects made from a variety of materials, e.g. ball of wool, plastic cup, stone, apple, cork, lollipop stick, metal paper clip, nail, cotton sock, piece of chalk, etc. Ensure that the bag includes natural and synthetic products, transparent, opaque, flexible and rigid materials, etc. Pupils should work in groups (with a bag for each group) and sort the materials into two groups initially. Ask pupils to describe the criteria for their sorting of materials to the class.
- Set the criteria and sort the objects into more than two groups. Write the criteria on the board so that other groups can try them. Pupils should initiate their own sorting criteria, e.g. rough/smooth, cold/warm, shiny/dull, etc.
- Give a magnet, torch and simple electrical circuit to each group to continue the sorting activity. Set the new criteria introduced by these objects, e.g. magnetic/non-magnetic, conducts/insulates electricity, etc.
- If preferred, picture cards can be used for the sorting activity instead of real objects.
- Invite a builder to visit the class. Pupils should ask questions about the materials used by builders.

In this unit, pupils will also carry out the following investigations to develop a hands-on knowledge of materials while being aware of, and adopting, safe practices at all times:

- Which Material Makes the Bounciest Ball? (Textbook page 108)
- Which Material Makes the Strongest Hanger? (Textbook page 109)
- Are Materials Waterproof? (Textbook page 109)
- Pupils will make a bridge using only two pieces of A4 paper (Textbook page 109, Activity D, Q. 2). (See http://www.primaryscience.ie/media/pdfs/col/design_a_bridge.pdf.)

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Ask each pupil to draw a picture of his/her chair in the centre of a page. Brainstorm words that could be used to describe the chairs and ask pupils to write them around the pictures. Observe the range and complexity of language known to each pupil.
- Class scavenger hunt: Ask pupils to walk around the classroom and find objects made from glass, wood, plastic and metal. Pupils should complete Activity A on page 32 of the Activity Book. Observe and question pupils to ascertain their knowledge about the origin of materials used to make the objects.
- Draw pictures of three objects in the classroom, e.g. a chair, desk and window, and label what each part is made from.

Assessment of Learning (Finding out what the pupils have learned)

- Revisit the brainstorm about the properties of the chairs. Use another colour to include any extra information that was learned.
- Ask pupils to collect pictures of everyday objects from magazines and newspapers, etc. Organise them in a scrapbook according to the type of material from which they are made.
- Ask each pupil to cut out a picture of a house from a newspaper or magazine and stick in the centre of a page. Ask them to label the materials that are used to make the different parts of the house. They should write one or two words to describe why each material is suitable, e.g. 'roof – slate – hard, waterproof'.

Differentiation – More Challenging

1. Use Venn diagrams to record results during the sorting activity. Two or more rings could overlap to show that objects have multiple properties, e.g. the plastic box is flexible and transparent, but non-magnetic (see photocopiable page 197).
2. Design an advertisement for a house on sale in your area. Include phrases about the usefulness of the materials used.
3. Do a project on famous bridges around the world.
4. Design suitable tests to investigate the following questions:
   - Will this schoolbag be strong enough to hold all my books?
   - Will this coat keep me dry in the rain?
   - Will this carrier bag break with the weight of my groceries? (Warn pupils not to conduct the test.)
   - Will this plate crack if I heat it? (Warn pupils not to conduct the test.)

Differentiation – Less Challenging

1. Divide an A4 sheet into four sections. Draw pictures to go with Activity A on page 32 of your Activity Book.
2. Use hoola hoops on the classroom floor to sort objects during the sorting activity (i.e. in place of a Venn diagram).
3. Draw a picture of your home. Make a list of the materials that were used to build it. Write words to describe each of these materials.
4. Do a group project on homes around the world. Each member of the group could choose one particular type of home, e.g. igloo, tepee, thatched cottage, etc.

Igloos are made using snow

Related Websites

http://www.museumsofmayo.com/clewbay/fireplace.jpg
Photo of a nineteenth-century kitchen

www.youtube.com/watch?v=nex1_gHsFAM&feature=related
Video of a house being moved

www.askaboutireland.ie/learning-zone/primary-students/1st-+-2nd-class/geography/looking-at-homes/ Interactive educational pages about houses and homes

www.bbc.co.uk/scotland/education/wwww/homes/kids/index_choice.shtml
Interactive educational pages about houses and homes

www.bbc.co.uk/scotland/education/wwww/buildings/
Interactive educational pages about buildings

www.primaryresources.co.uk/online/ks1ks2cons.swf
Interactive educational pages about building houses

www.ict.mic.ul.ie/websites/2002/Imelda_Fitzgerald/Homes%20Around%20the%20World-1.htm Information and photographs of homes around the world

www.hgpho.to/wfest/house/house-e.html
Information and photographs of homes around the world

www.youtube.com/watch?v=AAUQNMldp_Y Video of how cotton is made

www.youtube.com/watch?v=uDWUphHMEGU Video of the life-cycle of the silk worm

www.youtube.com/watch?v=uEYsmzophTA&feature=related
Video of how wool is turned into fabric

www.youtube.com/watch?v=rFDsSMDeV3w Video of how euro coins are made

www.youtube.com/watch?v=jGH7kQ30SKo Video of how paper is made

http://pbskids.org/rogers/picpic.html Educational videos about how things are made

www.youtube.com/watch?v=K_jQHlxgnHY&feature=related
Cartoon about properties of materials

www.youtube.com/watch?v=4wiKrZY5GVw&feature=related
Cartoon about natural materials

www.bbc.co.uk/bitesize/ks2/science/materials/material_properties/play/
Interactive educational game about properties of materials

www.bbc.co.uk/schools/scienceclips/ages/7_8/characteristics_materials.shtml
Interactive educational game about properties of materials

www.channel4learning.com/apps26/learning/microsites/E/essentials/science/material/charmaterials_bi.jsp Characteristics of materials

www.primaryscience.ie/media/flash/act18/act18_launch.htm
Film and activity to test the strength of a bag

www.primaryscience.ie/media/pdfs/col/design_a_bridge.pdf
Design a bridge activity sheet

Linkage:

Science Strand: Materials, **Strand Unit:** Materials and Change – sorting materials as solid, liquid or gas

Science Strand: Energy and Forces, **Strand Unit:** Light – materials that allow light to pass through

Science Strand: Energy and Forces, **Strand Unit:** Heat – materials that conduct heat

Science Strand: Energy and Forces, **Strand Unit:** Magnetism and Electricity – materials that conduct electricity

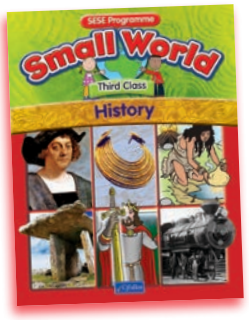
Geography Strand: Human Environments, **Strand Unit:** People Living and Working in the Local Area – homes and other buildings

Integration:

History: *Small World History* Unit 2: The Stone Age, and Unit 7: The Bronze Age

Numeracy: Sorting and classifying according to set criteria

Visual Arts: Creative pattern work based on patterns observed in natural materials



Answers – Textbook

Page 106: A. 1. Cardboard is not waterproof nor strong enough for a dog house. **2.** We use chairs so that we can sit comfortably, raised up from the ground. **4.** In science, the word 'material' is used to describe what an object is made from. **5.** glass, wood, PVC, plastic, metal **6.** (varies) cooker hood, cooker, fridge, dishwasher **7.** (varies) cooker hood, toaster, electric kettle, microwave

B. 1. ice **2.** animal skins, wood **3.** wood, glass **4.** stone, thatch, wood, glass **5.** glass, plastic, metal **6.** metal, plastic, glass

Page 109: A. 1. iron, copper, brass, tin, aluminium, zinc, steel… **2.** Polystyrene, cellophane, PVC, nylon, acrylic… **3.** aluminium **4.** copper, nickel and brass **5.** oil

B. cardboard, a birthday card, copy paper, kitchen roll, tissue

Answers – Activity Book

Page 34: A. Raw Material: wood, stone, silk, cotton, leather, gold, gemstones, steel
Manufactured: oil, rubber, nylon, PVC, paint, glass, pottery, paper, brick, plastic

Unit 19: Weather

June: 1st Fortnight

Subject: Geography **Strand:** Natural Environments
Strand Unit: Weather, Climate and Atmosphere

Subject: Science **Strand:** Environmental Awareness and Care
Strand Unit: Environmental Awareness

Objectives

The child should be enabled to:

- Use simple equipment to observe and record weather phenomena.
- Record and display simple weather observations in a systematic way using graphs, charts and common meteorological symbols.
- Use analysis of weather recordings to begin to associate simple descriptions of clouds, cloud cover, wind direction and other conditions with particular types of weather.
- Make and test weather predictions.
- Compare temperatures indoors and outdoors, in shade and sunlight on different sides of the same building, and explore the reasons for variations.

New Words

meteorology moisture water vapour satellite cirrus alto stratus cumulus

Lesson Kernel

In this unit, pupils will:

- Become familiar with weather and its impact on man-made and natural environments.
- Gain an understanding of weather phenomena.
- Learn about temperature, wind direction, rain, hail, sleet, snow, thunder and lightning and cloud cover.
- Carry out investigative work in relation to weather, and begin to predict weather conditions based on observations of wind direction and cloud cover.
- Gain an introduction to the use of varying types of map imagery, i.e. weather maps of Ireland and satellite images.

Skills

- **Predicting**: Offering suggestions (hypotheses) based on observations about the likely results of an investigation
- **Investigating and experimenting**: Carrying out simple investigations and collecting information from a variety of sources, such as observations and experiments in the environment and classroom, photographs, books, maps, and electronic and other media
- **Estimating and measuring**: Using appropriate, simple instruments and equipment to collect data, e.g. a rain gauge and thermometer; using appropriate standard units of measurement, i.e. rain is measured in millimetres (mm)
- **Recognising** patterns and relationships in the environment, e.g. seasonal patterns in weather
- **Interpreting** information and offering explanations
- **Drawing conclusions** from suitable aspects of evidence collected
- **Recording and communicating:** Presenting findings and conclusions using a variety of methods including oral, written, pictorial, photographic, diagrammatic and graphical forms

Working as a Geographer

In this unit, pupils will engage in practical use of photographs, and maps of different purposes, i.e. weather maps and satellite images.

'How does the weather affect a child walking to school?'

Assessment for Learning

(Finding out what the pupils know *before* the unit)

- Use the concept cartoons at the beginning of the unit to initiate discussion. Ask pupils to work in pairs to create a brainstorm in their copies of the words they associate with weather.
- Use the examples of a fisherman, a farmer, and a child walking to school and ask pupils how the weather affects each of these people. This may be a written or an oral activity.
- Visit the website, www.met.ie, to initiate a discussion on weather. Use this to assess what pupils already know.

Assessment of Learning (Finding out what the pupils have learned)

- At the end of the unit, use chalk to draw a compass rose on the ground in the yard. The children should be able to predict the type of weather from the wind direction. Ask them to use the following phrases: 'The wind is coming from the… and blowing towards the…'
- Assess the accuracy of pupils' weather recordings.

Differentiation – More Challenging

1. Record the weather in a weather diary throughout the year. Record the weather conditions each day of one week for each of the seasons/months. Use this information to compare and contrast/predict the weather for the seasons. Document the changes using ICT and calculate temperature and rainfall variations across the seasons.
2. Create a weather diary/chart to be used by younger classes.
3. Design and make weather equipment. Establish the following assessment criteria in advance and assess your own or each other's work:

	Plan	Design	Materials	Attractiveness	Total
Marks	/5	/5	/5	/5	/20

4. Create a multimedia presentation on extreme weather conditions and their impact on man-made and natural environments.
5. Pair work: Show your partner some unlabelled satellite images of various countries and see if s/he can guess which ones they are.

Differentiation – Less Challenging

1. Create weather symbols for a weather chart.
2. Investigation: How Much Rain Falls in Your Playground? (Textbook page 114) (Teacher: Use the photocopiable template on page 198 in advance to outline the assessment criteria for designing and making a rain gauge. Pupils can then assess their own or each other's work by ticking the boxes.)
3. Assist younger classes with weather recording. Help them to create a weather chart.
4. Assess and record the weather each day for a week.
5. Listen to/watch the weather forecast.

Related Websites

www.scoilnet.ie
Links to schools to Encyclopaedia Britannica, to access information about the weather

www.met.ie Met Éireann website – useful information and resources about weather

www.bbc.co.uk/schools/whatisweather/ Useful website for teachers and children

www.oxfam.org.uk/education/resources Useful background information for teachers

www.education.noaa.gov
Useful resource for teachers and children undertaking more challenging work

http://science.nationalgeographic.com/science/earth/earths-atmosphere/weather-forces/
Useful resource for teachers and children undertaking more challenging work

www.weatherwizkids.com Information for children about weather

Linkage: **Science Strand:** Energy and Forces, **Strand Unit:** Forces
Science Strand: Energy and Forces, **Strand Unit:** Light
Geography Strand: Environmental Awareness and Care, **Strand Unit:** Environmental Awareness

Integration: **Literacy:** Poetry (weather rhymes) and weather lore
Numeracy: Recording temperature and differences in temperature between places
Gaeilge: An aimsir – Réamháisnéis na haimsire

Answers – Textbook

Page 112-113: 1. temperature, cloud cover, rainfall, wind direction, wind speed **2.** thermometer **3.** cold, harsh and bitter **4.** warm and mild **5. (a)** saving crops, hay and silage, housing animals, etc. **(b)** dangerous conditions prohibit fishing, protective clothing, etc. **(c)** avoiding storms, turbulence, poor visibility, flights delayed/cancelled, etc. **(d)** choosing a route, frost and ice, protective clothing, sun protection, drinking water, etc. **6. (a)** Both show the shape/outline of Ireland and water bodies (sea, lakes, rivers). **(b)** The satellite image shows cloud cover. The map shows county and province boundaries. **Page 114: A. 1.** Hail is frozen rain. Sleet is a mixture of rain and snow. Snow is frozen droplets of water. **2.** Alto clouds are found in the middle of the sky. They are usually grey in colour, soft and puffy, and stretch out across the sky. They often carry heavy rain. Cumulus clouds are soft and fluffy, and look like balls of cotton wool in the sky. They lie low in the sky and come with fair to good weather.
3. Wednesday: (varies) north – cloudy with sunny spells, overcast/dark clouds in some areas; south – mainly good weather with lots of sunshine, overcast in some areas; east – sunny spells and little chance of rain; west – overcast/cloudy with rain; Sunday: (varies) north – cloudy with sunny spells, overcast in some areas; south – overcast/dark clouds in some areas; east – overcast/cloudy with snow in some areas; west – unsettled, with rain and thunder

Answers – Activity Book

Page 36: A. 1. Australia **2.** Spain **3.** Britain **4.** USA

Unit 20: Soils

June: 2nd Fortnight

Subject: Geography **Strand:** Natural Environments
Strand Unit: Rocks and Soils

Subject: Science **Strand:** Living Things
Strand Unit: Plants and Animals

Objectives

The child should be enabled to:

- Observe, collect and examine soil samples.
- Sort and group constituent materials in soil samples, e.g. rocks, pebbles, sand, plant material.
- Compare and contrast materials, focusing on certain criteria (colour, texture, use, strength, hardness, size and weight).
- Explore the influence of soils and rocks on animal and plant life.
- Explore and become familiar with some of the distinctive natural features of the locality and county.

Ref: Textbook p. 115

New Words

humus nutrients micro-organisms bacteria fungi lichens fertilise particles organic

Lesson Kernel

The threads of this unit are as follows:

- There are many types of soil, e.g. clay, sandy soil, silt, loam and peat. Soil is made up of tiny pieces of rock that have been broken down by weather and erosion. It contains air, water, organic matter, i.e. dead plants and animals, and living organisms, e.g. earthworms, mini-beasts and small mammals. Soil is a good place for plants to grow. It provides them with nutrients and stores water. It also supports plants so that they can grow straight and tall.
- A mudslide can occur when heavy rain falls on dry or loose soil.
- Soil has many uses for humans. Most of our food grows in soil; many antibiotics are made from micro-organisms that live in soil; pottery is made from clay.
- The surface of Mars is discussed to highlight the fact that humans can live on Earth because we are able to grow food in its soils. Could humans live on the surface of Mars?

Skills

- **Questioning:** Asking questions about soil, its uses and the processes through which it was made
- **Analysing:** Sorting and classifying soil types according to colour, texture, moisture content, material content, weight, etc.
- **Observing:** Looking closely at soil samples using a magnifying lens
- **Predicting** what is going to happen before carrying out an investigation on a soil sample
- **Investigating and experimenting:** Carrying out simple investigations on soil
- **Estimating and measuring:** Using appropriate instruments and measurements when carrying out soil investigations
- **Recognising** similarities and differences between soil samples
- **Analysing** which soil might be best for growth, based on observations and investigations
- **Recording and communicating:** Presenting findings and conclusions using a variety of methods, including oral, written, pictorial, photographic, diagrammatic and graphical forms and ICT.

Working as a Geographer

In this unit, pupils will carry out the following investigations to develop a hands-on knowledge of soil:

- What Is in Soils? (Textbook page 115)
- What Kind of Soil Is in Your Area? (Textbook page 116)
- How Much Water Is in Soil? (Textbook page 118)

Pupils will also develop geographical investigation skills through the following suggested activities:

- Fieldwork: Walk around the school grounds and examine flower-beds to see what types of soil there are. Observe and record the animals and plants living in/on the soil. Take photos and collect samples of soil and try to find a variety of soil types. (A variety of soils are also available from most garden-centres and will make for interesting contrasts.)
- Observation: Shake each soil sample in a bag for a minute then pour it into a sieve. Tap the sieve gently to try to separate the soil into pieces. Look carefully at the soil that goes through the sieve. Describe it. What type of soil does not go through the sieve? Are there any large pieces of vegetation or stones in it? Can you find any living creatures in it? Complete Activity B on page 38 of the Activity Book. Ask pupils to fill in a Soil Record Sheet (photocopiable page 199).

Assessment for Learning (Finding out what the pupils know *before* the unit)

- Initiate a discussion about soils by asking pupils where they should plant flowers. The class discussion will indicate how much is understood about the importance of soil for growth.
- KWL chart: Write what the pupils know about soil in the 'K' column. Ask pupils to name three things they would like to find out about soil. Write them in question form in the 'W' column.
- Before collecting a sample of soil, ask pupils to make sketches of what they expect to find in soil. Ask pupils to draw and name the mini-beasts they expect to see.

Assessment of Learning (Finding out what the pupils have learned)

- Revisit the KWL chart. Use another colour to fill in the 'L' column.
- Ask pupils to compare their drawings of mini-beasts with the Mini-beast Identification Chart (photocopiable page 200).

Differentiation – More Challenging

Investigate: Which Type of Soil Holds the Most Water?

You will need: Three types of soil, three Styrofoam cups, cocktail stick, empty measuring jug, measuring jug of water, three bowls

Method:

1. Place each type of soil in a separate cup.
2. Use the cocktail stick to poke some holes in the bottoms of the cups.
3. Use the measuring jug to pour small amounts of water into each cup. Record the amounts in your copy.
4. Collect the water that drips out of each cup in a separate bowl.
5. Use the measuring jug to measure the water in each of the bowls. Record the amounts in your copy.

Tests:

- Which cup let the least amount of water through? (Which soil held the most water?)
- Was there any change to the appearance of the water that dripped through the soils?

1. Use the internet to find out about mudslides and dustbowls around the world. Prepare a multimedia presentation for the class.
2. Research the planets of the Solar System and find out if any are capable of supporting growth and life.

Differentiation – Less Challenging

Investigate: Which Soil Is Best for Growth?

You will need: Similar plants in pots of sand, gravel and garden topsoil

Tests:

- How will you keep the test fair?
- Predict what will happen to each plant.
- How will you measure the growth?

Investigate: Is Shallow or Deep Soil Best for Growth?

You will need: A sunflower seed planted in a deep flowerpot filled with soil, a sunflower seed planted in a shallow tray filled with soil

Tests:

- How will you keep the test fair?
- Predict what will happen to each plant.

Related Websites

www.soil-net.com/primary/ Information about soils

www.childrenoftheearth.org/soil-facts-for-kids/soil-facts-for-kids-intro.htm
Explains how soil is made

www.youtube.com/watch?v=uS7zfeK4OTQ&feature=related Video about soil types

www.calrecycle.ca.gov/Vermi/Game/introduction.html
Cartoon about the role of the earthworm in soil

www.kids.nationalgeographic.com/kids/animals/creaturefeature/earthworms/
Facts about the earthworm

www.concord.org/~btinker/workbench_web/unitIV_revised/bacteria/index.html
Information about soil bacteria

www.bbc.co.uk/nature/life/European_Mole Information about the mole

www.publicdomainpictures.net/view-image.php?image=9294&picture=fungi
Photograph of fungi

www.irishlichens.ie/images/lichen/crustose.jpg Photographs of lichens

www.bbc.co.uk/gardening/gardening_with_children/didyouknow_compost.shtml
Information about compost

www.blackrockec.ie/projects/paddys-school-garden/february-projects/february-soil
Investigation of soil layers

www.yates.com.au/kids-gardening/in-the-garden/how-to-make-compost
How to make compost

www.kidsastronomy.com/mars.htm Information about Mars

www.youtube.com/watch?v=VMJiibdVYjE&feature=related Video of a large mudslide

Linkage:

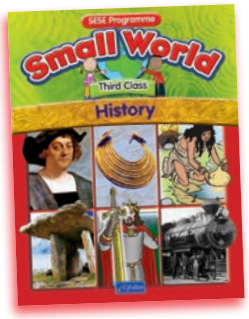
Science Strand: Materials, **Strand Unit:** Properties and Characteristics of Materials

Geography Strand: Natural Environments, **Strand Unit:** The Local Natural Environment

Geography Strand: Natural Environments, **Strand Unit:** People and Other Lands

Geography Strand: Natural Environments, **Strand Unit:** Planet Earth in Space

Integration:



History: *Small World History* Unit 9: The Egyptians – silt from the River Nile creating fertile soil, and making bricks from mud

Literacy: Reading from a variety of sources, e.g. newspaper articles about mudslides; reading and writing poems about soil/mud

Numeracy: Recording weights of soil samples, measuring heights of growth in investigations

Visual Arts: Make pottery from clay.

Answers – Textbook

Page 117: A. 1. living and non-living things **2.** rocks **3.** decayed plants and animals **4.** loam **B. 1.** earthworm **2.** organisms **3.** nutrients **4.** roots **5.** rotting

Page 119: A. 1. false **2.** true **3.** false **4.** false **5.** true **6.** false **B. 1.** loam, clay, sandy soil, silt **2.** clay, sand, gravel, humus (decaying plant and animal remains), air spaces and water **3.** to grow food, make antibiotics, build houses, make pottery **4.** mole, mouse, earthworm, ant, beetle… **5.** root **6.** topsoil

Answers – Activity Book

Page 37: A. garden – an area of land used for growing flowers and vegetables; nutrients – food; clay – moist, stiff soil that is used for making pottery; humus – decaying plant and animal remains; topsoil – rich soil on the top of the land; gravel – a loose mixture of small stones, pebbles and sometimes sand

B. Soil is a very important material. It is one of the most important materials in the world, because so many plants and animals depend on it for life. Soil is necessary for almost all plants to grow and animals depend on plants for their food. Earthworms and moles live in soil and help to break up and bring air into the soil. Weather helps to make soil by breaking down rocks into small pieces. Dead animals and plants rot into the soil. Rain soaks into the soil. There are many different types of soil. Sandy soil is loose and it falls apart easily. Clay soil can be squeezed into shapes. Loam is just the right kind of soil for plants to grow successfully.

C. circle: mole, woodlouse, mouse, beetle

Notes on Double-page Spreads

Double-page spread	Textbook page
Birds of Ireland	4
Fruit and Vegetables	16
Political & Physical Maps of Ireland	28
Aerial Photograph & Map of Ballysadare, County Sligo	40
Map of Britain & Map of Egypt	52
Political Map of the World	64
Physical Map of the World	66
The Solar System	98

Birds of Ireland – Textbook page 4

This spread focuses on birds (mostly Irish garden birds) and could be looked at in conjunction with Unit 1: Animals and Habitats. The information offered is not comprehensive, but aims to draw the child's attention to some interesting facts. Further information on any of the types of bird may be found online at:

www.birdwatchireland.ie/

www.rte.ie/radio/mooneygoeswild/gallery/index.html

www.bto.org/volunteer-surveys/gbw/gardens-wildlife/garden-birds

http://snap.waterfordcoco.ie/collections/ebooks/99308/99308.pdf

How Best to Use this Spread

Read through the pages with your pupils and invite comments from them about their knowledge of birds, e.g. birds they can identify, birds of which they have heard but cannot label, birds that migrate, birds found near the sea, birds that cannot fly, birds that sing, birds that can talk, rare birds, birds that hunt, etc.

Activities

1. Find out a new, interesting fact about a bird.
2. Conduct a bird survey (photocopiable page 189). Look out for birds over a seven-day period and keep a record. Find the most common bird in your locality. Which birds come to the schoolyard?
3. Read about birds in other countries, e.g. penguin, toucan, emu.
4. Search for bird feathers (that have fallen off!) and bring them in to school. Can you identify the bird from its feather?
5. Build a nest box in a quiet part of the school, if possible. Feed the birds. Discuss the foods that are best and those that are poor. Make sure birds have water during cold spells – they can die of thirst if ponds are frozen.
6. Hang an apple outdoors on a pole or tree branch and watch to see if birds come along to dine.
7. Look for internet resources about bird watching, fledglings hatching under a webcam, etc.
8. Draw, colour and photograph birds.

More Interesting Bird Facts

Swift

Arctic tern

- Birds have hollow bones to make them lighter for flying. In fact, a bird's feathers weigh more than its skeleton! Don't give bird (e.g. chicken) bones to dogs – they can choke on them.
- The largest bird in the world is the ostrich and the smallest is the bee hummingbird, which can fly backwards!
- The chicken is the most common bird in the world.
- Birds are warm-blooded.
- The fastest creatures in the world are birds – swifts. They can fly at speeds of 170 km/h. The peregrine falcon can dive (not fly, strictly speaking) at a speed of almost 300 km/h!
- Some birds (waders) have really long legs so they can stand in pools to fish.
- The bird that migrates furthest is the Arctic tern, which travels from the Arctic to South Africa or South America.
- Flamingos are pink because of their diet of shrimp.
- Miners used to bring canaries into the mines. If a bird showed signs of distress, it indicated a dangerous level of deadly carbon monoxide.
- Eagles have terrific eyesight. They can see a rabbit in the grass from a position high in the sky. Owls have great night vision, but are not very good at moving their eyes, which is why you see their entire heads turning!

Fruit and Vegetables – Textbook page 16

This spread focuses on some fruit and vegetables that are grown in Ireland and might be looked at in conjunction with Unit 3: Plants and Habitats. The information offered is not comprehensive, but aims to draw the child's attention and capture his/her interest, by presenting interesting and lesser-known facts. Further information on any of the fruit and vegetables may be found online at:

www.bordbia.ie

www.allotments.ie

www.askaboutireland.ie/learning-zone/primary-students/ (enfo)

How Best to Use this Spread

Read through the pages with your pupils and invite comments from them about their knowledge of fruit and vegetables, e.g. those they most enjoy, those they have never tasted, difference between fresh and frozen, fruit and vegetables not mentioned on the spread, etc. They will probably offer information that surprises you. Bring pupils' attention (and parents' attention, if possible!) to the importance of eating a balanced diet.

Blackberries

Nutrition – Why Five a Day?

Fruit and vegetables should form the basis of our diets, making up about one-third of our daily food consumption. Fruit and vegetables should be included in as many meals as possible and should be the first choice for a snack. It has been shown through large-scale population studies that people with a higher intake of fruit and vegetables have a lower risk of chronic diseases such as some cancers and heart disease. A typical portion is an apple, an orange or a banana, a slice of mango or pineapple, a handful of grapes or berries, a heaped spoon of dried fruit, a side salad, an 80 g serving of vegetables (potatoes don't count), etc. Fruit and vegetables are beneficial because their nutrients act as antioxidants. Some are termed 'superfoods', e.g. blueberries, tomatoes and broccoli, because of their high concentrations of antioxidants. Some vitamins can be destroyed during cooking, so some nutritionists recommend eating as many of them as possible raw. Fruit contains no cholesterol. Cholesterol is something that occurs in your body and in much of the food we eat. Too much cholesterol can cause problems with your arteries when you are older. Vegetables are high in fibre. Fibre acts as an intestinal sweeping brush, cleaning out the debris. (Note: This content is general and should not be treated as a substitute for advice from a medical practitioner.)

Grow Your Own

If space in the classroom or school allows, consider growing a small crop. Give each child a potato (around Saint Patrick's Day) and have him/her plant it. (Of course, you would have to come in during the school holidays to enjoy the harvest!) 'Quick' crops such as lettuce on the windowsill or a strawberry barrel (whose crop can be harvested in June) could be considered.

Grow your own crop.

Activities

1. Find out a new, interesting fact about any fruit or vegetable.
2. Name a fruit or vegetable for every colour. (red pepper, green lettuce, purple aubergine, etc)
3. Name a fruit or vegetable that will not grow outdoors in Ireland. (pineapple, banana, lemon, etc.)
4. Discuss mushrooms and why they are not classed as a vegetable. (fungus, does not need light, no root system, etc.)
5. Discuss the shelf life of fruit and vegetables and the ways in which they are kept fresh/edible. Shelf life varies from item to item, but generally fresh fruit and vegetables must be sold within a few days. (cooling, freezing, bottling, canning, picking when they are unripe and allowing to ripen while in transit, e.g. bananas)

Aerial Photograph & Map of Ballysadare, County Sligo – Textbook page 40

(Please note: An alternative spelling for Ballysadare is *Ballisodare*.)

Background Information from Geography Guidelines

The use and construction of maps is one of the most distinctive of all geographical skills. Maps enable us to record and present information about places and spatial relationships. They can also help us to understand more about environments – both those in which we live, and those of which we have no direct experience. Yet maps are not solely related to the study of geography. Maps and plans are encountered constantly in everyday life and the ability to interpret and use them efficiently is an essential skill. Access to a wide range of maps is necessary, therefore, in the middle and senior classes. Some of these maps – e.g. those of small areas in the locality, or those of an historic site visited by pupils – may need to be prepared by the teacher, but most will be commercially available.

Activities

Look at the aerial photograph on page 40.

1. Make a list of all the things you can see, e.g. houses, mountain, beach, bridge, church, etc.
2. List the colours you can see, e.g. green grass, blue river, grey rooftops, etc.
3. Make a list of the natural and man-made features you can see in the photograph.
4. Is this a nice place to live? Why/why not?
5. How is this place the same/different from where you live?
6. Look for roads on the photograph. Are they all the same?
7. Find the railway track. **(a)** Ballysadare is in County Sligo. Look up an Irish Rail map to find out where a train on this railway track would be going. **(b)** If you were on board a train, what would you see out the window as the train passed by this area?
8. How many bridges are in the photograph? Are they all the same? How are they different from each other?
9. The mountain in the photograph is called Knocknarea. It has some interesting historical features. Use the internet to find photographs of, and information about, Knocknarea.
10. Before looking at page 41, draw your own map of Ballysadare. Make up your own symbols to represent features on the map. What could you use to represent the church, the mountain, etc?

Look at the map on page 41.

1. Make a list of the colours you see and the features they represent, e.g. blue represents water and green represents land.
2. Make a list of the natural and man-made features you can see on the map
3. **(a)** What information does the map give you that you cannot see on the photograph? **(b)** What information does the photograph give you that you cannot see on the map?
4. **(a)** The map shows more than one railway track. How do they differ? **(b)** What is a 'disused' railway? Why do you think this one is disused?
5. What facilities/amenities are there for people who live in the area?
6. What is: **(a)** a quarry, **(b)** a weir?
7. What is a salmon fishery? What do you think the blue circles near the salmon fishery mean?
8. Play 'find the mystery place': Give directions to the class to get from a starting point to a mystery feature. For example: 'Start at the sports field. Take the road out and turn right. Walk straight ahead until you reach the main road. Turn left and keep walking until you get to the river. Cross the bridge. You can post a letter here.'
9. Look at the names of the housing estates. Why do you think they were given these names?
10. Many place-names in Ireland come from Irish words, e.g. baile (town), cnoc (hill), kil (church). Make a list of place-names on the map that come from these words.

The Solar System – Textbook page 98

Although the content objectives for this strand unit in the Geography Curriculum focus mainly on the importance of the sun, most children at this age have a great fascination for the Solar System and love to learn about space. This spread provides facts about the Solar System, with the aim of encouraging pupils to further explore the topic during their leisure time as well as in class. Listed below are a number of websites that provide excellent educational material on the Solar System.

Worksheets and Printables

http://bogglesworldesl.com/solarsystem_worksheets.htm
www.superteacherworksheets.com/solar-system-planets.html
http://edhelper.com/SolarSystem.htm
www.enchantedlearning.com/subjects/astronomy/solarsystem/activities.shtml
www.windows2universe.org/coloring_book/index_beg_edu.html

Information

www.nasa.gov/audience/forkids/home/index.html
www.enchantedlearning.com/subjects/astronomy/planets/

Interactive Websites

www.kidsastronomy.com/solar_system.htm
www.nasa.gov/audience/forkids/kidsclub/flash/games/levelfive/KC_Solar_System.html
http://science.nationalgeographic.com/science/space/solar-system/
http://airandspace.si.edu/ceps/ETP/
http://starchild.gsfc.nasa.gov/docs/StarChild/StarChild.html
http://marsprogram.jpl.nasa.gov/participate/funzone/

Videos

www.youtube.com/watch?v=mtKNH2Y2OJM
www.neok12.com/Solar-System.htm

Activities

1. Make a cut-out model of the Solar System:
   www.enchantedlearning.com/crafts/astronomy/solarsystemmodel/
2. Make a model of the Solar System from Plasticine.
3. Make a frieze of the Solar System. Use plates or saucepan lids to cut out planet shapes. Use a long sheet of wallpaper. Stick the sun and planets onto the sheet in the right order. To give an idea of how far each planet/dwarf planet really is from the sun, you could measure the following distances: 8 cm from the sun to Mercury; 14 cm to Venus; 19 cm to Earth; 29 cm to Mars; 98 cm to Jupiter. However, on this scale it will be 1.9 m to Saturn; 3.6 m to Uranus; 5.6 m to Neptune; 7.5 m to Pluto! The last two/three planets could be positioned further down the wall. Pupils will become aware of the size of the Solar System.
4. Use the scale above to get pupils to stand in the playground in the correct order and distances to represent the planets of the Solar System. Name cards or picture cards could be held up to represent each planet pictorially.
5. Creative writing: Pretend you are an astronaut…
6. Make a class scrapbook about the Solar System.
7. Make a poster or brochure advertising travel to a planet of your choice.
8. Send a postcard from a planet of your choice.
9. You are going to travel into space. Make a list of the things you will need.

Quiz Questions on Units

(Correct answers are shown in red.)

Unit 1: Animals and Habitats

1. **Cows are...**
   (a) herbivores.
   (b) carnivores.
   (c) omnivores.

2. **Frogs are...**
   (a) herbivores.
   (b) carnivores.
   (c) omnivores.

3. **Most people are...**
   (a) herbivores.
   (b) carnivores.
   (c) omnivores.

4. **A baby rabbit is called a...**
   (a) doe.
   (b) buck.
   (c) kitten.

5. **Which is TRUE? Corncrakes are rare in Ireland because...**
   (a) the weather in Ireland is too cold and wet.
   (b) farmers cut their grass too short for corncrakes to build nests in.
   (c) fertiliser spread by farmers poisons the young chicks.

6. **Which of these is a butterfly?**
   (a) Red Admiral
   (b) Belgian Blue
   (c) Welsh Black

7. **In which habitat might you find a razorbill?**
   (a) Fields and meadows
   (b) The forest
   (c) The seashore

8. **Which of these creatures has no eyes?**
   (a) Earthworm
   (b) Bumblebee
   (c) Corncrake

9. **Which of these is a decapod?**
   (a) Crab
   (b) Starfish
   (c) Lugworm

10. **Which of these is a fish?**
    (a) Gannet
    (b) Mackerel
    (c) Starfish

Unit 2: Buildings All Around Me

1. **When someone builds something that is a bit silly it is called...**
   (a) a folly.
   (b) a keystone.
   (c) a façade.

2. **Cement, water and sand make...**
   (a) glass.
   (b) concrete.
   (c) plastic.

3. **What do you call a man-made lake?**
   (a) A folly
   (b) A reservoir
   (c) A ford

4. **In Ireland, solar panels should always face...**
   (a) north.
   (b) south.
   (c) east.

5. **A shallow crossing place in a river is called...**
   (a) a reservoir.
   (b) a bridge.
   (c) a ford.

6. **Who invented the arch?**
   (a) The Ancient Romans
   (b) The Ancient Greeks
   (c) The Ancient Egyptians

7. **The brick at the top of an arch is called...**
   (a) a foundation stone.
   (b) a capping stone.
   (c) a keystone.

8. **Who did Cúchulainn kill at the Fight at the Ford?**
   (a) Robert
   (b) Ferdia
   (c) Arthur

9. **Sydney Harbour Bridge is...**
   (a) a draw bridge.
   (b) a beam bridge.
   (c) an arch bridge.

10. **What do you call a house that is attached to another house at each side?**
    (a) A terraced house
    (b) A detached house
    (c) A semi-detached house

Unit 3: Plants and Habitats

1. **When are vegetable and flower seeds usually planted?**
   (a) Spring
   (b) Summer
   (c) Autumn

2. **Plants need four things to grow. Three of them are: water, heat and good soil. What is the fourth?**
   (a) Light
   (b) Shade
   (c) Wind

3. **What do you call the part of a plant that grows below ground?**
   (a) Stem
   (b) Root
   (c) Leaves

4. **Bread and pasta are made from...**
   (a) grass.
   (b) potatoes.
   (c) wheat.

5. **Which county is famous for growing strawberries?**
   (a) Wicklow
   (b) Wexford
   (c) Westmeath

6. **Ireland is sometimes called the Emerald Isle because...**
   (a) it is famous for its emeralds.
   (b) it is so green.
   (c) it is an island.

7. **Dandelion juice was once used as a cure for...**
   (a) head lice.
   (b) dandruff.
   (c) warts.

8. **How often does the tide come in?**
   (a) Twice a day
   (b) Twice a week
   (c) Twice a year

9. **What plant is planted on beaches to stop the sand from blowing away?**
   (a) Sea pinks
   (b) Seaweed
   (c) Marram grass

10. **What does a red flag on a beach mean?**
    (a) It is not safe to swim.
    (b) A lifeguard is on duty.
    (c) The beach is very clean.

Unit 4: Living Together

1. **Long ago, children were sometimes taught in their homes by...**
   (a) a council worker.
   (b) a professor.
   (c) a tutor.
2. **The council DON'T...**
   (a) clean the streets.
   (b) repair cars.
   (c) run libraries.
3. **Thomas Leaf got caught in a storm near which country?**
   (a) Australia
   (b) America
   (c) China
4. **Which of these did Thomas Leaf NOT eat on the island?**
   (a) Rabbit
   (b) Crab
   (c) Coconuts
5. **Which of these clubs did Megan want to join?**
   (a) A history club
   (b) A science club
   (c) A geography club
6. **Who helped Megan's dad to rescue the dog?**
   (a) The litter warden
   (b) The traffic warden
   (c) The school warden
7. **What is the name of Megan's teacher?**
   (a) Mr Barkley
   (b) Miss Ciúin
   (c) Miss Well
8. **What sport does Megan play?**
   (a) Basketball
   (b) Soccer
   (c) Camogie
9. **Why does Noel, the council worker, empty the recycling bins on Friday?**
   (a) Because they are usually full on Fridays
   (b) To leave the bins empty for the weekend
   (c) Because he likes an easy job at the end of the week
10. **What do honeybees and ants have in common?**
    (a) They live and work alone.
    (b) They live and work in communities.
    (c) They can fly.

Unit 5: Life in Blanchardstown

1. **Living in an urban area means...**
   (a) living in a town or city.
   (b) living in the countryside.
   (c) living on the edge of a town or city.
2. **Living in a rural area means...**
   (a) living in a town or city.
   (b) living in the countryside.
   (c) living on the edge of a town or city.
3. **The population of Blanchardstown is approximately...**
   (a) 7000.
   (b) 70,000.
   (c) 700,000.
4. **How does Mr Walsh travel to Connolly Station each day?**
   (a) By bicycle
   (b) By car
   (c) By train
5. **What breed of deer can be found in the Phoenix Park?**
   (a) Fallow deer
   (b) Sika deer
   (c) Red deer
6. **Who lives in Áras an Uachtaráin?**
   (a) The Taoiseach of Ireland
   (b) The President of Ireland
   (c) The Lord Mayor of Dublin
7. **Which of these castles is near Blanchardstown?**
   (a) Cabra Castle
   (b) Ashford Castle
   (c) Luttrellstown Castle
8. **Which of these hospitals is near Blanchardstown?**
   (a) The Mater Hospital
   (b) Connolly Memorial Hospital
   (c) Beaumont Hospital
9. **Where in Blanchardstown is Ireland's only Olympic-size swimming pool?**
   (a) National Aquatic Centre
   (b) Markievicz Swimming Pool
   (c) Westpoint Health and Fitness Centre
10. **Where does Jack do his homework?**
    (a) In the skatepark
    (b) In the crèche
    (c) On the minibus

Unit 6: Staying in Touch

1. **Carrier pigeons were used during wars to deliver messages. How did the enemy sometimes stop these messages from being delivered?**
   (a) They shot the pigeons.
   (b) They used nets to catch the pigeons.
   (c) They used hawks to catch the pigeons.
2. **Who was Buffalo Bill?**
   (a) A famous carrier pigeon
   (b) A famous Pony Express rider
   (c) A famous Olympic athlete
3. **In medieval times, news was sometimes delivered by a...**
   (a) town shouter.
   (b) town caller.
   (c) town crier.
4. **The first radio message was sent by...**
   (a) Morse code.
   (b) Norse code.
   (c) horse code.
5. **The sinking *Titanic* sent an SOS radio signal. What does SOS mean?**
   (a) Save Our Ship
   (b) Save Our Souls
   (c) Ship On Sea
6. **Why didn't the nearest ship, the *Californian*, hear the *Titanic*'s SOS?**
   (a) Its radio was switched off.
   (b) Its radio was broken.
   (c) It had no radio.
7. **Who invented the telephone?**
   (a) Reginald Fessenden
   (b) Alexander Graham Bell
   (c) Guglielmo Marconi
8. **What was a 'Penny Black'?**
   (a) A microphone
   (b) A stamp
   (c) A newspaper
9. **The first radio message was sent approximately...**
   (a) 10 years ago.
   (b) 100 years ago.
   (c) 1000 years ago.
10. **What birds are released at the start of the Olympic Games?**
    (a) Doves
    (b) Pigeons
    (c) Hawks

Unit 7: Ireland – People and Places

1. **What do you call a photograph taken from space?**
   (a) An aerial photograph
   (b) A satellite photograph
   (c) A Polaroid
2. **The needle on a compass always points…**
   (a) north.
   (b) south.
   (c) east.
3. **Blue areas on a map are usually…**
   (a) sky.
   (b) land.
   (c) water.
4. **Green areas on a map are usually…**
   (a) sky.
   (b) land.
   (c) water.
5. **Where would you find a compass rose?**
   (a) In a garden
   (b) On a map
   (c) On a ship
6. **What is the largest lake in Ireland?**
   (a) Lough Erne
   (b) Lough Neagh
   (c) Lough Derg
7. **Which of these contains saltwater?**
   (a) A sea
   (b) A river
   (c) A lake
8. **Ireland's most northerly point is…**
   (a) Malin Head.
   (b) Mizen Head.
   (c) Hook Head.
9. **What is the smallest county in Ireland?**
   (a) Louth
   (b) Laois
   (c) Dublin
10. **Which of these castles is NOT in County Clare?**
    (a) Bunratty Castle
    (b) Dromoland Castle
    (c) Luttrellstown Castle

Unit 8: Mountains

1. **What is the tallest mountain in Ireland?**
   (a) Mount Everest
   (b) Carrauntoohil
   (c) The Andes
2. **What is the tallest mountain in the world?**
   (a) Mount Everest
   (b) Carrauntoohil
   (c) The Andes
3. **The Himalayas are…**
   (a) fold mountains.
   (b) block mountains.
   (c) volcanic mountains.
4. **When a block of rock is forced up between two plates, it makes…**
   (a) a fold mountain.
   (b) a block mountain.
   (c) a volcano.
5. **The very centre of the Earth is made of…**
   (a) iron.
   (b) liquid rock.
   (c) water.
6. **Who climbed Mount Everest with Tenzing Norgay?**
   (a) Edmund Hillary
   (b) Radhanath Sikdar
   (c) Norman Tenzag
7. **What is the name of the volcano on Mars that is over three times higher than Mount Everest?**
   (a) Olympus Mons
   (b) Mauna Kea
   (c) MacGillycuddy's Reeks
8. **Sherpas live in which country?**
   (a) America
   (b) Nepal
   (c) India
9. **What is scree?**
   (a) A mountain plant
   (b) Loose rock on a mountain
   (c) Liquid rock
10. **V-shaped valleys are made by…**
    (a) rivers.
    (b) volcanoes.
    (c) ice.

Unit 9: Britain

1. **Which of these is TRUE?**
   (a) Britain is made up of England, Scotland, Wales and Northern Ireland.
   (b) The United Kingdom is made up of only England, Scotland and Wales.
   (c) Britain is also called Great Britain, the United Kingdom or the UK.
2. **Which currency (money) is used in Britain?**
   (a) Euro
   (b) Pound sterling
   (c) British dollar
3. **Who lives in 10 Downing Street?**
   (a) The Members of Parliament
   (b) The Queen
   (c) The Prime Minister
4. **The British national anthem is called…**
   (a) 'God Save the Queen'.
   (b) 'English Rose'.
   (c) 'A Nation Once Again'.
5. **When was the last time the Olympic Games were held in London?**
   (a) 1948
   (b) 1983
   (c) 2012
6. **What sport takes place at Wimbledon every year?**
   (a) Soccer
   (b) Tennis
   (c) Horse racing
7. **Bangers and mash is a favourite British dish. What are bangers?**
   (a) Yorkshire puddings
   (b) Chips
   (c) Sausages
8. **Where does the author JK Rowling live?**
   (a) London
   (b) Edinburgh
   (c) Cardiff
9. **Where would you find an oil-rig?**
   (a) In the sea
   (b) In the mountains
   (c) In the sky
10. **What is Wales called in Welsh?**
    (a) Twrci
    (b) Cymru
    (c) Melita

Unit 10: Science and the World Around Us

1. **Alan Turing invented…**
   (a) the modern computer.
   (b) windscreen wipers.
   (c) the television.
2. **Mary Anderson invented…**
   (a) the modern computer.
   (b) windscreen wipers.
   (c) the television.
3. **John Logie Baird invented…**
   (a) the modern computer.
   (b) windscreen wipers.
   (c) the television.
4. **John Philip Holland invented…**
   (a) the tractor.
   (b) the submarine.
   (c) the internet.
5. **Harry Ferguson made…**
   (a) submarines.
   (b) tractors.
   (c) computers.
6. **Who was the first man in space?**
   (a) Yuri Gagarin
   (b) Neil Armstrong
   (c) Buzz Aldrin
7. **When was the first moonlanding?**
   (a) 1939
   (b) 1969
   (c) 1999
8. **The World Wide Web was created in which country?**
   (a) Germany
   (b) Switzerland
   (c) Ireland
9. **Which was invented by an Irish person?**
   (a) The television
   (b) The internet
   (c) The submarine
10. **Which was invented first?**
    (a) The modern computer
    (b) Windscreen wipers
    (c) The television

Unit 11: Egypt

1. **What are *fellahin*?**
   (a) Egyptian desert tribes
   (b) Farmers
   (c) Fishermen
2. **What creatures are kept in dovecotes?**
   (a) Camels
   (b) Goats
   (c) Pigeons
3. **What religion are most Egyptians?**
   (a) Muslim
   (b) Christian
   (c) Buddhist
4. **What is the *Qur'an*?**
   (a) A dish made with dried fruit
   (b) Bread baked in the sun
   (c) A Muslim's holy book
5. **Egypt is in…**
   (a) Asia.
   (b) Africa.
   (c) Asia and Africa.
6. **What is the capital of Egypt?**
   (a) Cairo
   (b) Alexandria
   (c) Luxor
7. **Which of these is the name of an Egyptian desert tribe?**
   (a) Islam
   (b) Bedouin
   (c) Sheik
8. **What animal is known as 'the ship of the desert'?**
   (a) The camel
   (b) The fennec fox
   (c) The water buffalo
9. **What plant was used by the Ancient Egyptians to make paper?**
   (a) Bamboo
   (b) Papyrus
   (c) Cactus
10. **Which of these is a river in Egypt?**
    (a) The Amazon
    (b) The Mississippi
    (c) The Nile

Unit 12: Rainforests

1. **Rainforests are found close to the…**
   (a) equator.
   (b) Arctic.
   (c) Antarctic.
2. **What is the largest rainforest in the world?**
   (a) The Olympic Rainforest
   (b) The Congo River Basin
   (c) The Amazon Rainforest
3. **Which is TRUE?**
   (a) An area of rainforest the size of a football pitch is destroyed every year.
   (b) Rainforests cover more than half the Earth's surface.
   (c) More than one-quarter of the world's medicines come from the rainforest.
4. **The canopy is…**
   (a) the floor of the rainforest.
   (b) the roof of the rainforest.
   (c) somewhere between the floor and the roof of the rainforest.
5. **What is decomposition?**
   (a) When rainforests are cut down for timber
   (b) When dead plants and animals rot
   (c) When tribes leave the rainforests to live in modern cities
6. **Which animal does not live in a rainforest?**
   (a) Sloth
   (b) Badger
   (c) Jaguar
7. **What is a group of monkeys called?**
   (a) A troop
   (b) A pack
   (c) A school
8. **Which of these is a rainforest bird?**
   (a) Black and white colobus
   (b) Emerald tree boa
   (c) Macaw
9. **Why are rainforests often called the 'lungs of the planet'?**
   (a) Because they produce so much oxygen
   (b) Because so many important animals and plants live there
   (c) Because they are so hot and wet
10. **What tribe of people lives in the Amazon Rainforest?**
    (a) Pygmies
    (b) Huli
    (c) Tribal Indians

Unit 13: Sound

1. **How are bats able to fly at night?**
   (a) They can see in the dark.
   (b) They use echolocation.
   (c) They use antennae to feel their way around.
2. **Sound travels in...**
   (a) straight lines.
   (b) curved lines.
   (c) waves.
3. **Which of these bones is NOT in the ear?**
   (a) Femur
   (b) Hammer
   (c) Anvil
4. **You should never stick anything smaller than...**
   (a) your finger in your ear.
   (b) your elbow in your ear.
   (c) a cotton bud in your ear.
5. **The loudness of sound is measured in...**
   (a) decibels.
   (b) knots.
   (c) gigabytes.
6. **Who invented the telephone?**
   (a) Thomas Edison
   (b) Johannes Gutenberg
   (c) Alexander Graham Bell
7. **Who is Evelyn Glennie?**
   (a) The woman who invented sign language
   (b) A world-famous drummer who is deaf
   (c) A blind girl who uses echolocation to see
8. **Which of these is TRUE?**
   (a) Light travels faster than sound.
   (b) Sound travels faster than light.
   (c) Light and sound travel at the same speed.
9. **Where is there no sound?**
   (a) Underwater
   (b) In the clouds
   (c) In space
10. **Which is TRUE?**
    (a) Sound travels fastest through the air.
    (b) Sound travels fastest through objects.
    (c) Sound travels through the air and objects at the same speed.

Unit 14: The Human Body

1. **Which is FALSE?**
   (a) Your body is always moving, even when you are asleep.
   (b) You had more bones when you were born.
   (c) Your nose, ears and kneecaps are made from bone.
2. **The smallest bone in your body is the stirrup. Where is it?**
   (a) In your nose
   (b) In your ear
   (c) In your foot
3. **The longest bone in your body runs from your hip to your knee. What is it called?**
   (a) Femur
   (b) Sternum
   (c) Radius
4. **What protects the heart and lungs?**
   (a) The spine
   (b) The skull
   (c) The ribs
5. **Which of these should you have most of in your diet?**
   (a) Dairy
   (b) Bread, cereals and potatoes
   (c) Eggs, fish and meat
6. **What is the name of the tough white material that covers your teeth?**
   (a) Enamel
   (b) Calcium
   (c) Marrow
7. **Which of these is NOT a tooth?**
   (a) Cartilage
   (b) Canine
   (c) Incisor
8. **How many teeth does an adult have?**
   (a) 22
   (b) 32
   (c) 42
9. **What are holes in your teeth called?**
   (a) Molars
   (b) Premolars
   (c) Cavities
10. **Why is Wilhelm Conrad Röntgen famous?**
    (a) He discovered how to mend broken bones.
    (b) He took the first X-ray.
    (c) He invented toothpaste.

Unit 15: Electricity

1. **Which country is famous for using geothermal heating systems?**
   (a) Ireland
   (b) Iceland
   (c) England
2. **Electricity can be stored in...**
   (a) pylons.
   (b) batteries.
   (c) wires.
3. **A battery is measured in...**
   (a) volts.
   (b) gigabytes.
   (c) decibels.
4. **A conductor of electricity is a material which...**
   (a) allows electricity to flow through it.
   (b) doesn't allow electricity to flow through it.
   (c) makes electricity.
5. **Which of these is NOT a type of electricity?**
   (a) Mains electricity
   (b) Cold electricity
   (c) Static electricity
6. **Into which room in your house should you not bring electrical items?**
   (a) Kitchen
   (b) Bathroom
   (c) Bedroom
7. **What do you call a material through which electricity CANNOT flow?**
   (a) Conductor
   (b) Insulator
   (c) Static
8. **Which of these is NOT used to power a pocket calculator?**
   (a) Wind power
   (b) Solar energy
   (c) Batteries
9. **What do you call something that breaks an electrical circuit?**
   (a) A battery
   (b) A switch
   (c) A bulb
10. **Why is US National Park Ranger, Roy Sullivan famous?**
    (a) He invented the battery.
    (b) He was struck by lightning seven times.
    (c) He invented the first solar-powered car.

Unit 16: The Sun

1. **The sun is…**
   (a) at the beginning of its life.
   (b) half-way through its life.
   (c) near the end of its life.

2. **A huge group of stars is called…**
   (a) a galaxy.
   (b) a supernova.
   (c) a planet.

3. **Which is FALSE?**
   (a) It takes the Earth one year to go around the sun.
   (b) It takes the Earth 365¼ days to go around the sun.
   (c) It takes the Earth 24 hours to go around the sun.

4. **When is the longest day of the year?**
   (a) March 21st
   (b) June 21st
   (c) December 21st

5. **Which of these is NOT a planet?**
   (a) Uranus
   (b) Neptune
   (c) Pluto

6. **Which planet is known as the Red Planet?**
   (a) Mercury
   (b) Venus
   (c) Mars

7. **Things which block the light are called…**
   (a) opaque.
   (b) transparent.
   (c) translucent.

8. **Photosynthesis is…**
   (a) the way a plant makes food.
   (b) the way plants move towards the light.
   (c) the way animals make vitamin D.

9. **Which of these is cold-blooded?**
   (a) A rabbit
   (b) A turtle
   (c) A human

10. **What colour best reflects the heat of the sun?**
    (a) Black
    (b) White
    (c) Green

Unit 17: Heat

1. **Which of these is NOT a natural form of heat?**
   (a) The sun
   (b) Friction
   (c) A radiator

2. **Which of these is the best conductor of heat?**
   (a) Metal
   (b) Plastic
   (c) Wood

3. **Which of these becomes a solid when heated?**
   (a) Water
   (b) Ice
   (c) Egg

4. **What instrument is used to measure temperature?**
   (a) Barometer
   (b) Thermometer
   (c) Hydrometer

5. **In the USA, temperature is measured in…**
   (a) Celsius
   (b) Fahrenheit
   (c) Knots

6. **Water boils at…**
   (a) 0° C
   (b) 10° C
   (c) 100° C

7. **Water freezes at…**
   (a) 0° C
   (b) 10° C
   (c) 100° C

8. **What colour is a polar bear's skin?**
   (a) Black
   (b) White
   (c) Pink

9. **Why do elephants have such big ears?**
   (a) To help them hear better
   (b) To help them stay warm
   (c) To help them cool down

10. **Which of these creatures is warm-blooded?**
    (a) Dog
    (b) Snake
    (c) Crocodile

Unit 18: Materials

1. **Which is a synthetic material?**
   (a) Wood
   (b) Plastic
   (c) Silk

2. **Why do people in Ireland use fewer plastic bags now?**
   (a) Because they have been banned
   (b) Because they have to pay for them
   (c) Because shops don't stock plastic bags anymore

3. **In which country are homes made from sun-dried clay bricks?**
   (a) Ireland
   (b) Canada
   (c) Morocco

4. **Euro coins are made from…**
   (a) copper, nickel and brass.
   (b) iron.
   (c) aluminium.

5. **In which country are many homes made from vinyl?**
   (a) Ireland
   (b) Canada
   (c) Morocco

6. **What is the main raw material in glass?**
   (a) Metal
   (b) Sand
   (c) Wood

7. **Which of these raw materials might be smelted?**
   (a) Iron
   (b) Wool
   (c) Cotton

8. **From which of these materials can plastic be made?**
   (a) Stone
   (b) Iron
   (c) Oil

9. **What do you call a mixture of two or more metals?**
   (a) Polystyrene
   (b) Alloy
   (c) Acrylic

10. **Electricity can flow through…**
    (a) copper.
    (b) plastic.
    (c) wood.

Unit 19: Weather

1. **A meteorologist is a person who...**
   (a) studies the weather.
   (b) protects buildings from lightning.
   (c) studies the stars.

2. **Northerly winds bring...**
   (a) cold, harsh weather.
   (b) warm, mild weather.
   (c) warm, wet weather.

3. **Hailstones range in size from the size of a pea to...**
   (a) the size of a golf ball.
   (b) the size of a tennis ball.
   (c) the size of a football.

4. **Which is TRUE?**
   (a) Lightning is five times hotter than the surface of the sun.
   (b) You hear lightning before you see it.
   (c) The safest place to be during a thunderstorm is outside.

5. **Sleet is...**
   (a) frozen rain.
   (b) melted snow.
   (c) a mixture of rain and snow.

6. **What sort of cloud am I? I am found in the middle of the sky. I am soft, puffy, grey and stretch across the sky in waves. I often bring heavy rain.**
   (a) Cirrus
   (b) Alto
   (c) Stratus

7. **What sort of cloud am I? I am white, long, wispy and made of ice. I come with nice weather.**
   (a) Cirrus
   (b) Alto
   (c) Stratus

8. **What sort of cloud am I? I am fluffy, grey and cover the entire sky. I look like fog and I bring drizzly or misty weather.**
   (a) Alto
   (b) Stratus
   (c) Cumulus

9. **Why did the Ancient Greeks fence off places where lightning had struck?**
   (a) To stop people getting hit by lightning
   (b) Because they believed those places were sacred
   (c) To stop lightning striking again

10. **What happens to water at 0° C?**
    (a) Nothing happens.
    (b) It boils.
    (c) It freezes.

Unit 20: Soils

1. **How long does it take for 2 cm of soil to form?**
   (a) 50 years
   (b) 500 years
   (c) 5000 years

2. **What is humus?**
   (a) Decaying plants and animals
   (b) Broken rocks
   (c) Nutrients in the soil

3. **One square metre of soil in a garden has about...**
   (a) 2 earthworms.
   (b) 250 earthworms.
   (c) 2 million earthworms.

4. **Which of these creatures helps to bring air into the soil?**
   (a) Frog
   (b) Mole
   (c) Owl

5. **Which of these is NOT a soil?**
   (a) Bacteria
   (b) Loam
   (c) Silt

6. **If you can squeeze soil into shape, it is...**
   (a) sandy soil.
   (b) silt.
   (c) clay.

7. **What is the weather like on Mars?**
   (a) Cold and wet
   (b) Dry and windy
   (c) Wet and windy

8. **Potters use clay to make...**
   (a) pottery.
   (b) medicine.
   (c) food.

9. **Soil comes in all of these colours except one. Which one?**
   (a) Red
   (b) Blue
   (c) Yellow

10. **Which of these is NOT a micro-organism?**
    (a) Lichen
    (b) Bacteria
    (c) Ant

Bird Survey

Name: Date: Class:

Which birds are most common in our locality? Be on the lookout for birds and keep a note of those you see and how many there are. In a few days, your teacher will pass this sheet around and every pupil will enter the number of birds she or he saw.

Check out www.scoilnet.ie/Migrating_Birds_themepage.shtm.

	Geraldine													
Cormorant	0													
Gannet	0													
Kestrel	1													
Hawk	0													
Pheasant	1													
Lark	0													
Owl	0													
Swift	0													
Heron	0													
Hen	0													
Goose	0													
Duck	5													
Swan	2													
Seagull	6													
Wagtail	1													
Starling	8													
Finch	1													
Sparrow	4													
Cuckoo	0													
Wren	0													
Pigeon	6													
Swallow	0													
Thrush	0													
Magpie	5													
Crow	1													
Blackbird	3													
Robin	0													

Home Survey

Name: Date: Class:

Home Survey

1. What type of home is it (apartment, semi-detached house…)?

2. What is the biggest room?

3. How many rooms are there?

4. How many windows?

5. How many inside or internal doors (room doors, not cupboard doors)?

6. How many outside or external doors?

7. How is this home heated?

8. Does it have a chimney?

9. How many different types of floor covering can you find (carpet, tiles, wood, lino)?

10. If every light bulb in this home had to be replaced, how many light bulbs would you need to buy?

11. Name eight appliances in this home that use electricity.

12. Does it have a garden?

If so, does the garden have any buildings (greenhouse, shed, dog kennel)?

Extra questions:

1. _____

_____

2. _____

_____

3. _____

_____

Map of Britain and Its Neighbours

Name: Date: Class:

Map of Britain and Ireland

Name: Date: Class:

Letter From William

Name: Date: Class:

Hi, my name is William.

I am English, because I was born in England. I am also British, as England is part of Britain.

I am nine years old and I attend primary school. I walk to school each morning. My school begins at 8:55 a.m. We have assembly each morning, where we listen to a story, pray or sing a song.

We study lots of different subjects in school, although the main ones are Literacy and Numeracy.

For lunch, we have a canteen in our school. Children can choose to bring their own sandwiches or have a cooked school dinner from the canteen. The dinners cost about £2. They can vary from roast chicken on a Monday to curry on a Thursday.

We finish school at 3:15 p.m. each day. If we want, we can stay back in the afternoon to attend school clubs.

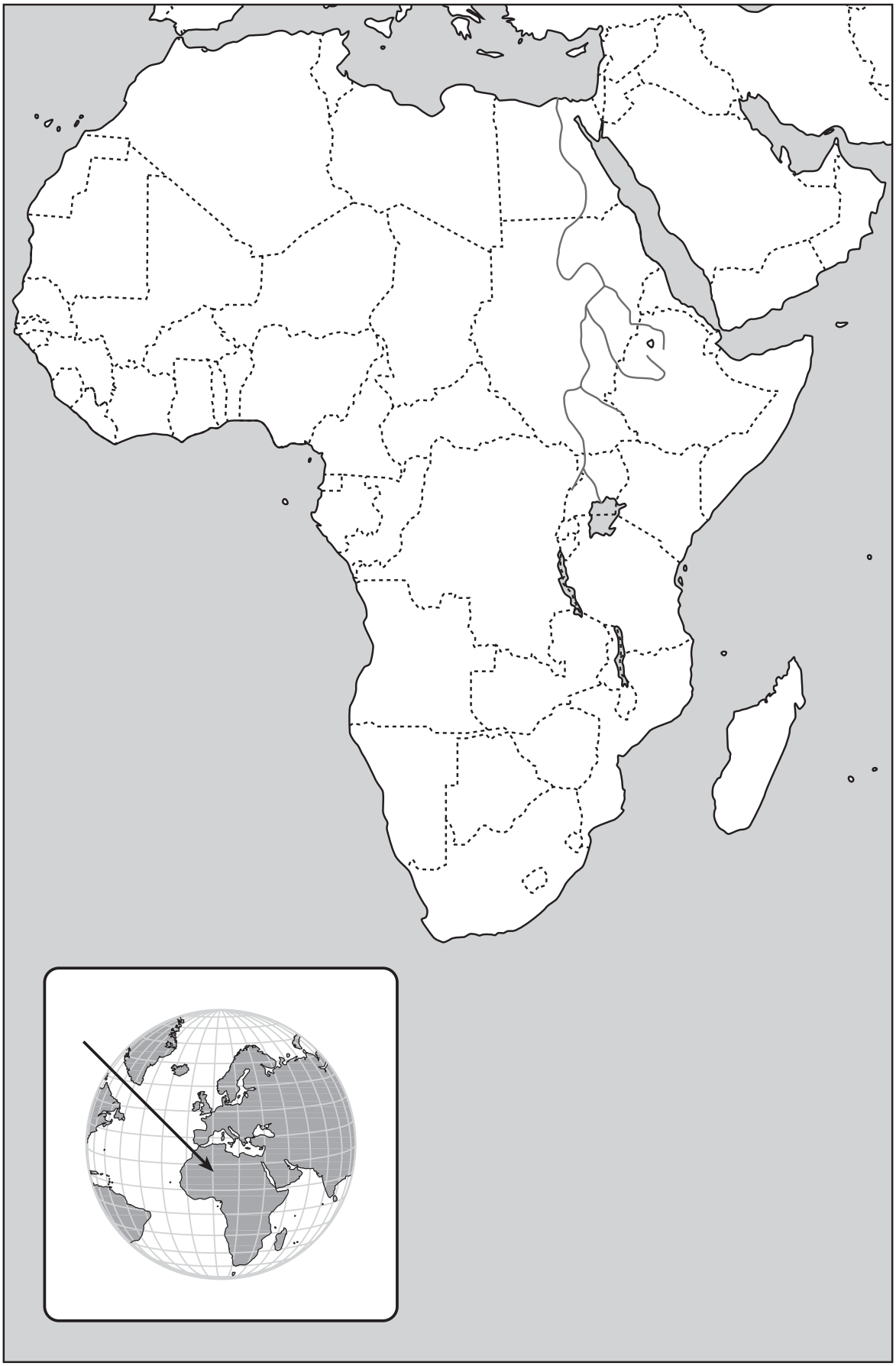
In the evenings I meet my friends at the local park to play. In summer we play cricket on our local green. Sometimes I watch television or play on my laptop. On Tuesdays I have soccer training and on Fridays I go to the Scouts.

Bye for now,

William

Map of Africa

Name: Date: Class:



Reflecting on My Work

Name: _____ Date: _____ Class: _____

Description of the work:

_____

_____

_____

What I tried to do:

_____

_____

_____

What I did:

_____

_____

_____

What I learned:

_____

_____

One thing I <u>like</u> about this piece of work:

_____

_____

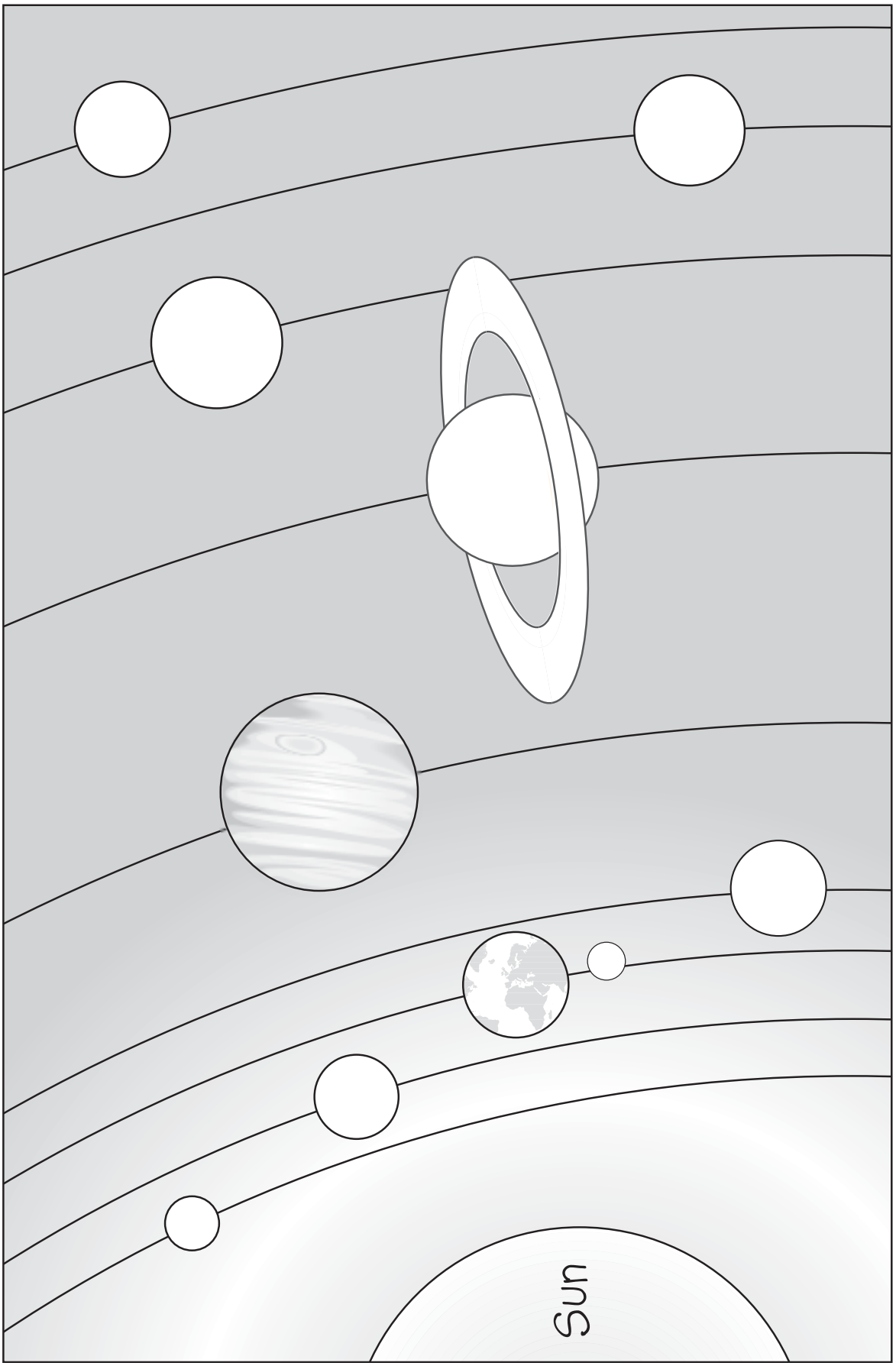
One thing I would like to <u>improve</u> about this piece of work:

_____

_____

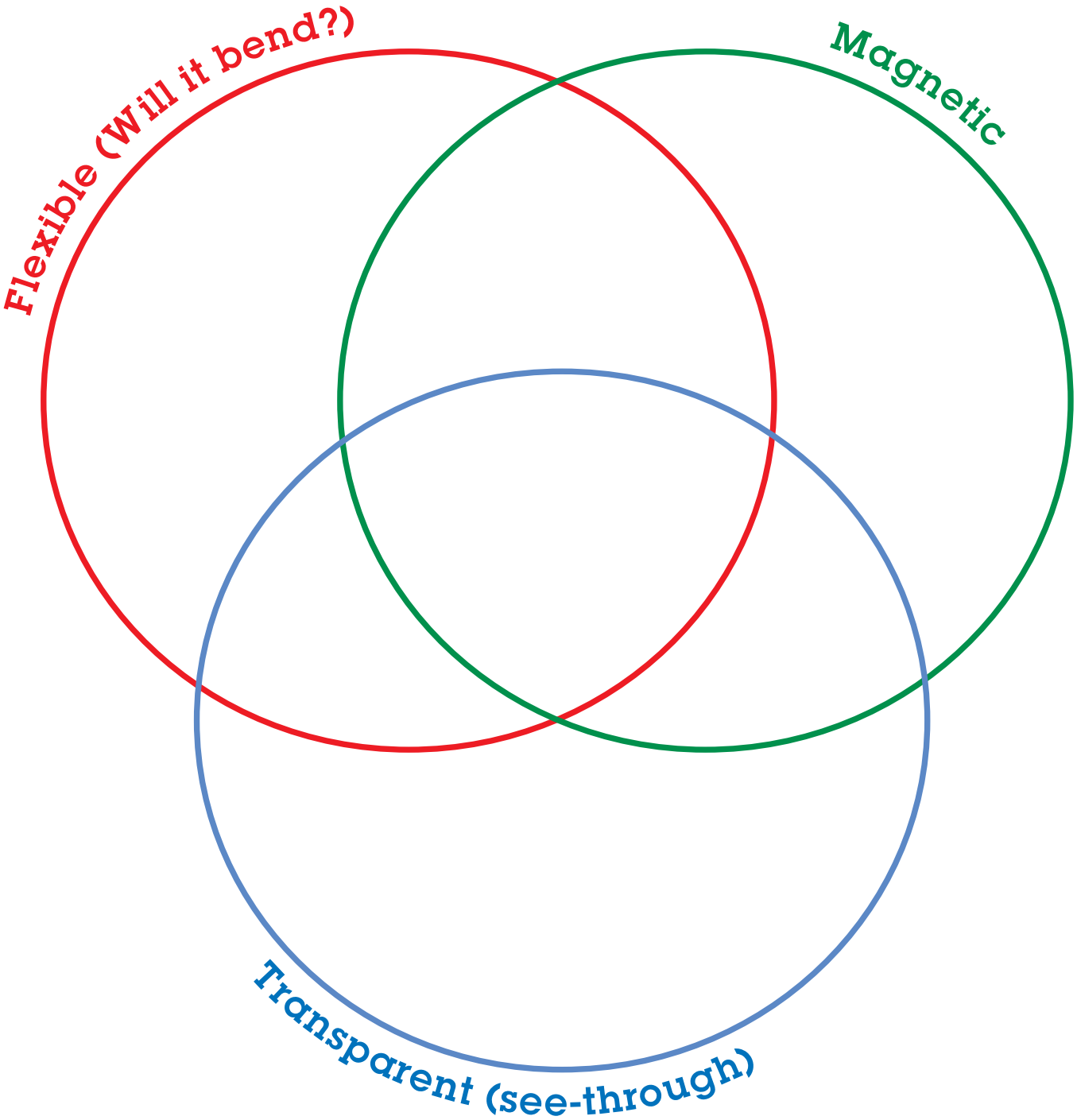
The Solar System

Name: Date: Class:



Venn Diagram for Sorting Materials

Name: Date: Class:



What I Think About My Rain Gauge

Name:

Date:

Class:

What I think about my Rain gauge

	1	2	3
Plan	I made out a plan for my rain gauge. ☐	I made out a plan for my rain gauge with a few details. ☐	I made out a plan for my rain gauge with a lot of details. ☐
Design	I didn't show the important parts of my design. ☐	I showed some of the important parts of my design. ☐	I showed a lot of the important parts of my design. ☐
Materials	The materials that I used were not suitable. ☐	Some of the materials that I used were suitable. ☐	A lot of the materials that I used were suitable. ☐
Appearance	My rain gauge looks okay. ☐	My rain gauge looks good. ☐	My rain gauge looks great. ☐

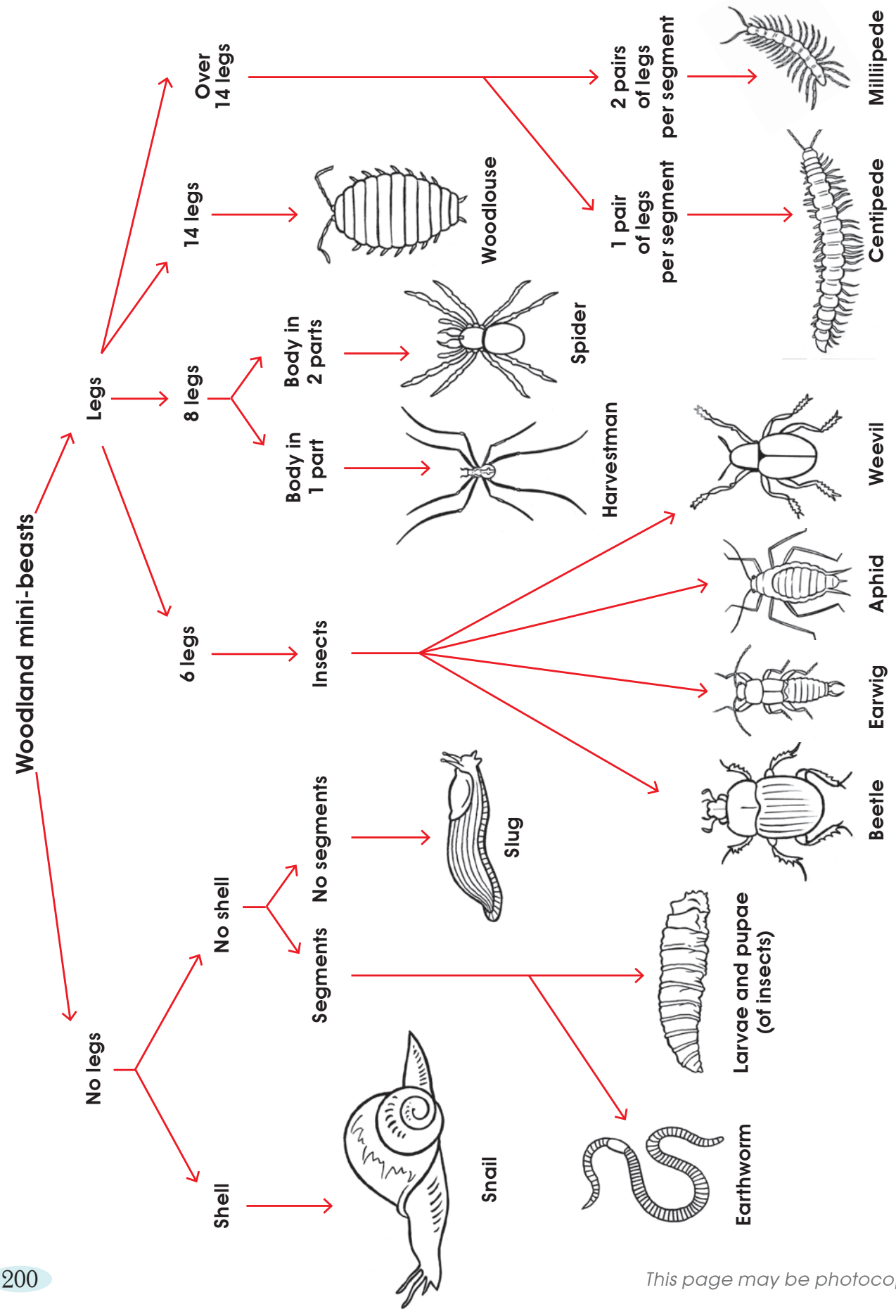
Soil Record Sheet

Name: Date: Class:

	Soil sample 1	Soil sample 2
What colour is the soil?		
What does the soil feel like?		
What sizes are the particles/ clumps in the soil?		
Are there air spaces in it?		
What type of soil is it? (clay, sandy, etc.)		
How much water passes through it in five minutes?		
Is the soil wet or dry?		
Is there any plant or animal material in the soil?		
Would this be a good soil to anchor a plant's roots?		

Mini-beast Identification Chart

Name: Date: Class:



Useful Geography & Science Resources

Geography

http://www.seomraranga.com/links/geography Seomra Ranga links for Geography

http://www.scoilnet.ie/britannica.shtm Encyclopedia Britannica through Scoilnet (requires registration)

http://www.osi.ie Ordnance Survey Ireland

http://www.worldatlas.com Printable maps

http://www.daft.ie/maps Map of Ireland

http://www.flags.net Flags of the world

Science

http://www.scienceweek.ie Science Week website

http://www.btyoungscientist.com BT Young Scientist & Technology Exhibition

http://www.discover-science.ie Discover Science

http://www.irelandswildlife.com Ireland's wildlife

Geography and Science Packs Available in Most Schools

- Curriculum Documents – Teacher Guidelines for Science and Geography: There are exemplars in the guidelines with ready-made lesson plans for each strand unit in each class.
- Forfás Science pack – Electricity, Magnetism and Light: Every school received one of these teacher's packs containing lesson plans for each class, extension activities and the necessary equipment.
- www.pdst.ie: This website contains activity and lesson suggestions for each strand unit in each class. The material also contains ideas for investigations and Design and Make activities.
- Tree pack for National Tree Week: Every school received a copy containing photocopiable worksheets for each class and a CD. Worksheets are also available for download at http://www.coillte.ie/coillteforest/environment/learn_about_trees/.
- Sustainable Energy Ireland: The Energy File and *Guzzler* books and posters are free and contain lots of practical activities. See www.sei.ie.
- Discover Science and Maths packs: Lesson plans for middle to senior classes are available online at http://www.primaryscience.ie/.
- The Sci-Spy DVD contains background information and investigations and is available for free at http://www.scispy.ie/.
- Watch the SESE Science DVD that was sent to each school. It contains seven lessons including: Design and Make a Land Yacht or Parachute; Mini-beast Hunting; Rock Pool Dipping; Circuits; Magnets; Ramp Activities.
- The *Eureka* supplement from the *Irish Independent* contains lots of background information and practical activities based on a particular topic each month. The *Irish Times* occasionally contains supplements on topics such as birds, trees, the seashore, etc.
- The Something Fishy pack is available for download at http://www.somethingfishy.ie/index2.htm.
- The Planet Aqua pack is available for download at http://www.planetaqua.ie/.
- Enfo has packs, posters, fact sheets and games on the environment and Ireland's flora and fauna. See http://www.askaboutireland.ie/learning-zone/primary-students/enfo-kids/.
- The Geological Society of Ireland sent sample rocks, posters, worksheets and a teacher's manual to each school. Activities are also available for download at http://www.geoschol.com/downloads/activitybook_small.pdf.

Integrated Themes

Through the use of integrated themes, a number of different aspects of the curricula can be addressed in an integrated, cross-curricular approach. This approach requires careful planning in order to avoid superficial treatment of a wide range of content.

Geography

People at Work – Food and Farming

- Explore aspects of the production of foodstuffs in the locality.
- Explore the environment, and the work of primary producers, e.g. farmers, fishermen.
- Discuss links between local producers of different foodstuffs.

Unit 20: Soils

- Explore the influence of soils and rocks on plant and animal life.
- Explore physical conditions – e.g. soil, water and food supply – that influence the range of plants and animals
- Discuss people at work (industry).
- Discuss the work of people involved in manufacturing or delivering important services for the food industry, the work of a food processing factory in the locality, and the use of natural resources to make and process foodstuffs.

Unit 19: Weather and Climate

- Study weather variations throughout the year and their influence on plants, animals and humans.
- Begin to appreciate the importance of solar energy for the Earth.
- Develop some awareness of weather and climate patterns and their relationship with plant, animal and human life in environments in other parts of the world.

Environmental Awareness and Care

- Recognise how people have changed and are changing environments for farming and industrial purposes.
- Explore biodegradable and non-biodegradable waste from food packaging.
- Explore food-waste products that can be composted.
- Suggest ways in which litter from packaging can be removed from the locality of the school.
- Collect food packaging for recycling.
- Investigate the impact of local food industries on the environment.
- Explore foods from different parts of the world.
- Identify different methods of cooking foodstuffs in different locations.

Sample Integrated Theme: Food and Farming

Science

Unit 3: Plants and Habitats

- Plants and animals are a source of food for people.
- Explore the interdependence of animals and plants for food.
- Explore food chains/webs.
- Investigate how various animals feed.
- Investigate requirements that plants have for growth.

Unit 14: The Human Body

- Explore food, nutrition and the digestive system.
- Develop an awareness of the importance of food for energy and growth.
- Explore the need for a balanced and healthy diet.

Unit 15: Electricity

Learn about the use of electricity in the cooking of food.

Unit 17: Heat

Explore the conduction and insulation of heat in cooking utensils and appliances, and the changing state of foodstuffs during the cooking process, e.g. melting chocolate.

Unit 18: Materials

- Identify and investigate a range of common foods.
- Compare different foods – colour, texture and use.
- Distinguish between natural and processed foods.
- Explore properties of different foods, e.g. perishable/non-perishable, solid/liquid.
- Investigate the ways in which foods are packaged.
- Explore different materials used to keep food fresh, and compare the use of biodegradable and non-biodegradable forms of packaging.

Visual Arts

- Design and make your own food wrappers.
- Make a collage using food wrappers, pasta, a variety of seeds, etc.
- Create a still life of fruit, vegetables, etc. using a variety of media.
- Use fabric and fibre to create artwork based on a food/farm theme.
- Use modelling clay to make shapes of foodstuffs.
- Potato printing; rubbing from skin of foodstuff; patterns found on the farm or foodstuffs; 3D models of farm animals

Numeracy

- Create a maths trail based on a visit to a local farm, e.g. count and graph the number of animals present, graph favourite animals, measure the field, barn, etc.
- Explore weight and capacity using common household foodstuffs.
- Explore 3D shapes of foodstuff boxes.

Gaeilge

Bia theme

PE

Dance: Square dance; barn dancing; staicín orna

Music

- Mime: Jobs on a farm; a seed through stages of growth; animal movements.
- Put on a play based on a farm fairytale, e.g. *The Enormous Turnip.*

History

Unit 6: Food and Farming

- Continuity and Change Over Time – Food and Farming, Shops and Fairs
- Explore different types of farming in the past and now.
- Explore the types of work that people did/do on farms and in local mills and shops.
- Explore crops and foods traditionally associated with the locality.
- Life, Society, Work and Culture in the Past – types of food eaten, methods of cooking and preserving foods

Drama

- Listen to and identify sounds from a farm.
- Use percussion instruments, body percussion and voice to recreate sounds and compose a piece of music based on a farm theme.
- Listen and respond to country music, bluegrass, and working songs, e.g. spirituals from the cotton fields of the Deep South.
- Sing songs based on food/farm themes.

SPHE

Myself: Food and Nutrition – food groups, making healthy choices, food hygiene

Literacy

- Read the novels, *Charlotte's Web, Ann of Green Gables,* and others based on farming life.
- Read from a variety of sources, e.g. menus, shopping lists, food wrappers, cooking instructions.
- Procedural/instructional writing: Design your own healthy menu; write a recipe for making your favourite healthy meal/snack; explain how to plant a seed.
- Narrative writing: Write an adventure set on a farm.
- Report writing: Write project reports on unusual food from around the world, farm animals, etc.
- Keep a healthy eating diary.
- Oral language: Debate about healthy versus fast food.
- Read and write poetry based on a farm or food theme, e.g. cinquain or shape poem based on fruit/vegetables.
- Vocabulary development: Write word searches, crossword puzzles, etc. based on farming themes.

Geography

Unit 2: Buildings All Around Me

- Explore, investigate and come to appreciate the major features of the built environment in the locality and in a contrasting part of Ireland.
- Explore my home, its location and surroundings.
- Investigate the variety of homes in the area, e.g. houses, farmhouses, cottages, apartments, caravans, mobile homes, trailers, etc.
- Explore the notion of homelessness.
- Investigate other buildings and man-made features, their location and uses, e.g. shops, offices and other workplaces, farm buildings, farmyards and fields.
- Explore instances of conservation and change.
- Investigate materials used to construct homes and other buildings.
- Investigate colours, patterns and textures in buildings and streetscapes, and path, road and street surfaces.
- Investigate services to homes and other buildings, e.g. water supply, sewerage, heating system, electricity, cable television, telephone/ broadband service, etc.
- Make simple plans, maps and models, e.g. interiors and surrounding areas of homes and other buildings.

Sample Integrated Theme: Local Settlements, Buildings and Materials Through the Ages

History

Unit 2: The Stone Age

Unit 7: The Bronze Age

- Become familiar with aspects of the lives of these peoples, e.g. origins, homes, food and cooking, clothing, work and technologies, weapons, cultural and artistic achievements, myths and legends, faith and beliefs, leisure and pastimes, burial practices.
- Explore links these peoples had with Ireland or Europe, and their arrival, settlement and life in Ireland.
- Examine and become familiar with evidence that tells us about these peoples, especially evidence that may be found locally.

Also consider including:

Actively explore some features of the locality, e.g. a local church, old house/s, estate, farmyard, street (or section of a street), bridge or old road, mill, hospital, shop-front or other building façade, castle or tower-house. Investigate various aspects of these sites:

- Origins and location
- Purpose of construction
- Elements that have changed
- Elements that have remained the same
- What it was like for people to live, work, worship or die there
- Stories of people who lived, worked, worshipped or died there

Science

Unit 18: Materials

- Identify and investigate a range of common materials in the immediate environment, e.g. water, air, rock, fabric, paper, metal, wood, plastic, food.
- Describe and compare materials, noting differences in colour, shape and texture.
- Investigate how materials may be used in the construction of homes and other buildings, furniture, and appliances.
- Distinguish between raw and manufactured materials.
- Group materials according to their properties – flexibility, transparency, magnetism, conductivity or insulation properties, strength, shape, ability to muffle sound, perishable and non-perishable, solubility.

Visual Arts

- Create sketches/drawings of homes and other buildings in the locality.
- Construction: Make models of local buildings or structures, e.g. bridges.
- Design your own building.
- Use fabric and fibre to make a collage of a local settlement scene.
- Take rubbings from building materials.
- Study the pattern work in local buildings and recreate it through a variety of media.

Literacy

- Read poems or stories based in the locality.
- Research and read about the local area on the internet, in books, brochures, newspaper clippings, etc.
- Narrative writing: Pretend you live(d) or work(ed) in a local building. Write your story.
- Report writing: Complete a group project on important buildings in your locality. Make a tourist leaflet or brochure.
- Write poems about a local building or structure.
- Vocabulary: Make a word wall of adjectives used to describe the buildings in your locality and the materials used.

Numeracy

- Shape and Space: 3D and 2D shapes, angles and lines can be observed in the construction of local homes, buildings and other structures. Take photographs and make them into a maths trail.
- Measurement: Use standard (trundle wheel) and non-standard (pace, span) units to calculate the length of walls, bridges, etc. in the locality.
- Number: Estimate the number of blocks used to make a wall (simple multiplication activities).

Music

- Listen and respond to traditional music from the locality.
- Sing songs about the local area.
- Select different sounds to portray a local character, story, area or building, and create a class composition.

PE

Go on a walk in the local area. Follow a local trail or map if available.

Drama

- Re-enact a scene from a story set at an old building in the area.
- Create a still life of Stone Age or Bronze Age settlement scenes.

Geography

Unit 11: Egypt

Investigate:

- The location of Egypt.
- The communities that live there.
- Language(s).
- Myths and stories.
- Art and culture.
- Clothing.
- Pastimes and leisure.
- Features of the natural environment, e.g. the Sahara Desert and the River Nile.
- Interrelationships of the lives of people and natural features.
- Settlements, homes and other buildings.
- Common building materials and features.
- Food and farming.
- Work and work-places.
- Similarities to, and contrasts with, Ireland.
- Links with Ireland.

Unit 16: The Sun

Relate this to the Ancient Egyptians' belief in the sun god, Ra, and how this influenced the design and positioning of their tombs.

Sample Integrated Theme: Egypt and the Ancient Egyptians

History

Unit 9: The Egyptians

Use evidence to become familiar with aspects of the lives of the Ancient Egyptians.

Investigate:

- Origins.
- Homelands.
- Homes.
- Food and cooking.
- Clothing.
- Work and technologies.
- Weapons.
- Cultural and artistic achievements.
- Myths and legends.
- Faith and beliefs.
- Leisure and pastimes.
- Burial practices.

Also, explore:

- Stories of the archaeologist Howard Carter and his team.
- Stories of the Egyptian gods.

Science

Unit 14: The Human Body

- Relate to the discovery of bones and mummies during archaeological digs, internal organs placed in canopic jars, etc.
- The food pyramid

Unit 17: Heat

Explore measuring temperature, ways of keeping cool, and clothing to wear in a hot country like Egypt.

Visual Arts

- Design and make your own canopic jar from clay.
- Study wall paintings from the pyramids as a stimulus for creating your own art using a variety of media.
- Make your own cartouche.
- Make a 3D pyramid from a net/template and decorate it.
- Create a shoebox diorama based on an Egyptian theme.

Numeracy

- Shape and Space: 2-D shapes (triangle and square)
- 3D shapes: Make a triangular pyramid from a net or template. Become familiar with the terms 'face', 'edge' and 'vertex'.
- Number: Try writing numbers using Ancient Egyptian symbols: www.historyforkids.org/learn/egypt/science/numbers.htm. Create simple maths problems using these symbols.

Music/PE

Listen and respond in dance to ancient and modern music from Egypt. Find out about traditional Egyptian musical instruments.

Drama

- Use still image to recreate scenes from the building of the pyramids.
- Conscience alley: Explore the rights and wrongs of taking artefacts from the tombs, etc.
- Role-play a press conference after the discovery of Tutankhamun's Tomb.

Literacy

- Writing: Report writing, summaries, fact-files on Egypt
- Narrative writing: Pretend you live in Ancient Egypt and tell your story, e.g. you are a slave working on the pyramids.
- Write a letter, email, blog or postcard home from your holiday in Egypt.
- Poetry: Read and write pyramid poems.
- Write a story for your friend, incorporating some hieroglyphs.
- Read stories about Egypt.

Notes