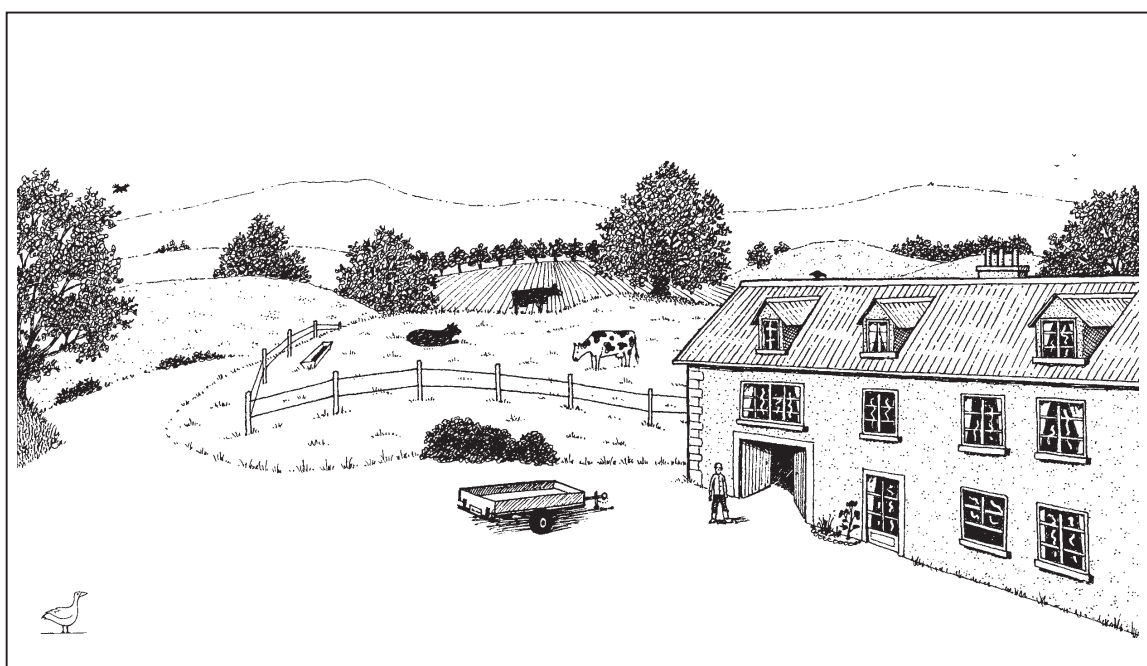


Looking at the Farm



Name of farm

My name

A learning programme for middle stages focusing on the farm, food production and the countryside.

INTRODUCTION

This teaching and learning programme was devised to help develop a pupil's knowledge and understanding of working farms, food production and the countryside. These leader's notes act as a guide through the pupil workbook, provide curriculum links, extension ideas and assistance with planning a farm visit.

This section is designed for use by pupils in Middle Stages. This unit forms part of a series of three.

PLANNING A VISIT TO A WORKING FARM

If you do not have links with working farms then do not hesitate to contact the Farm Links Project Officer. Telephone: 0131-335-6227

Timing of a farm visit

There are times of the year which are better, or more appropriate, to visit a working farm. These will all depend on the type of working farm you are planning to visit and the farmer. We advise contacting the farmer near the beginning of the session to discuss the best time to visit. You may wish the farmer to visit the school at the beginning or during the project.

Before the farm visit

Make a pre-visit to the farm and discuss the following with the farmer:

- ✓ the age and abilities of the pupils;
- ✓ the main topic being studied and the pupil booklet;
- ✓ on the farm facilities, including hand-washing and toilet;
- ✓ other health and safety aspects;
- ✓ areas of the farm the pupils should not be allowed to visit.

It is also very important to:

- ✓ ensure that the pupils have suitable clothing and the necessary equipment for their activities;
- ✓ have a first aid kit;
- ✓ ensure you have complied with local authority outdoor education regulations;
- ✓ check the school insurance;
- ✓ ensure there will be adequate supervision and adult helpers are well briefed;
- ✓ tell the pupils how they are expected to behave on the farm and inform them of the hazards.

During the farm visit

- ✓ On arrival at the farm, please ensure that the pupils wait in the bus until the farmer meets you.
- ✓ Keep the pupils with you at all times.
- ✓ Ensure that the pupils do not go into the < no-go > areas.
- ✓ Ensure that the pupils listen carefully to the farmer.
- ✓ The pupils should not be allowed to climb on fences or gates.
- ✓ Pupils must not be allowed to eat or drink during the farm tour. However, packed lunches or snacks could be eaten after the pupils have washed their hands. Teachers may wish to bring their own supply of soap and towels.
- ✓ Make sure the pupils avoid rubbing their nose, mouth and eyes during the visit.
- ✓ Make sure that everyone washes their hands well in warm soapy water immediately after the farm tour.
- ✓ Dispose of all litter in a bin.
- ✓ At the end of the visit ensure that all footwear is cleaned of dirt picked up on the farm.

After the farm visit




- ✓ Write to thank the farmer.
- ✓ If pupils suffer joint pains, flu symptoms or gastric upsets they should visit a doctor who should be informed of the farm visit.

For up-to-date health and safety guidelines check the Farm Links Handbook or contact the Farm Links Project Officer.

CURRICULUM LINKS

There is a great deal of scope for topic work in connection with a farm visit. This teaching and learning programme looks specifically at a present-day working farm. This booklet focuses on how food is produced, the farm as a business and the countryside.

To complete this programme requires a day on the farm. However, if it is possible to spend only half a day please consult with the farmer. It may be possible for him/her to come to the school and be interviewed by the pupils. Pages are marked in the leader's notes as follows:-

	To be completed in class before or after the visit.
	Can be completed on the farm or in the class.
	Should be completed on the farm.

Extension work links to three themes:-

- A From Farm to Plate
- B Comparative Studies
- C Developments over Time

Notes on how these themes may be approached are on page number vi.

Pupils may not be familiar with farming terminology. Some of these words and ideas could be discussed before coming on the visit. A wordbank has been included on every page of the pupil booklet and pupils may wish to add to the list as they encounter new ideas during the topic.

There are plenty of back up resources available to help with this topic and/or extension work. These sources include: -

- The Working Countryside Box
- The Working Countryside Regional Information Booklet
- Agriculture and the Rural Environment CD-ROM
- www.rhet.rhass.org.uk
- Aberdeen Environmental Education Centre

If you are not sure where to find any of the above or would like extra information for your topic then contact the Farm Links Project Officer.

Telephone: 0131-335-6227

Fax: 0131-333-5236

e-mail: rhet@rhass.org.uk

5-14 CURRICULUM GUIDELINES

This teaching and learning programme meets many requirements of the 5-14 curriculum.

It will also enhance pupils understanding of jobs and work, the working environment and industry. For more information see 'Education Industry Links in Scotland 5-18', published by SCCC.

Below is an overview of the attainment outcomes and key features, at stages P4-P6, that can be met by following this programme. (Not including extension work)

ENVIRONMENTAL STUDIES

Understanding Living Things and the Processes of Life

Variety and characteristic features

- *Recognising and naming plants and animals by using a simple key*
- *Similarities and differences between plants and animals of the same species*

Interaction of living things with their environment

- *The interaction between humans and their environment in relation to aspects such as **farming**, fishing and other local industries*
- *Simple food chains based on energy from the sun*
- *The importance of conservation and the value of recycling materials*
- *How plants and animals are affected by environmental conditions*

Understanding Energy and Forces

Forms and sources of energy

- *the sun as the main source of light and heat*

Understanding Earth and Space

On planet Earth

- *patterns of weather observed locally*

Understanding People and Place

Ways in which places have affected people and people have used and affected places

- *Reasons why people dig into and build up the land altering its shape*
- *Ways in which people can affect and change places through their work and leisure*

Making and using maps

- *extending the mental map to a wider area*
- *completing/making 2D and 3D maps including simple sketch maps in context*

Understanding People in Society

Social rules, rights and responsibilities

- *Formal and informal rules in selected schools, local and national context*
- *How and why rules are made and the consequences for themselves and others of disregarding agreed rules*

Health and Safety in the Environment

- *The role and responsibility of the individual in keeping the local environment healthy*
- *Potential risks to the environment*
- *Potential benefits of the environment*

ENGLISH LANGUAGE

Listening

- *Listening for information, instructions and directions*
- *Listening in groups*

Talking

- *Conveying information, instructions and directions*
- *Talking in groups*

Reading

- *Reading for information*

Writing

- *Functional writing*
- *Personal writing*
- *Punctuation and structure*
- *Spelling*
- *Handwriting and presentation*

EXPRESSIVE ARTS

Art and Design

- *Investigating visually and recording*

RELIGIOUS AND MORAL EDUCATION

Personal Search

- *The natural world*

The 5-14 Curriculum Guidelines encourage teachers to begin with the local environment and to gradually broaden this to encompass a global perspective.

Teachers are encouraged to:

1. give pupils first-hand experiences.
2. make comparisons within the UK and Europe.
3. encourage pupils to look at developments over time, for example, developments in farming over the last 50 years and/or the changes in the landscape.

Comparisons and developments over time are covered by extension work and notes, see page vi.

5-14 ENVIRONMENTAL STUDIES - REVIEW 1999

The Royal Highland Education Trust will publish any changes/additions for inclusion in the Looking at the Farm resources in the light of recommendations made by the review body.

EXTENSION WORK

As covered on page iv there are three areas of extension work:-

- A From Farm to Plate
- B Comparative Studies
- C Developments over Time

EXTENSION A - From farm to plate

This extension thread is taking ideas introduced in the pupil booklet and expanding them further. It looks at the farm as a business producing food and other products.

Extra material to help with this work can be found in the Working Countryside Box, from the CD-ROM 'Agriculture and the Rural Environment' and from the local Working Countryside Booklet. Any further information can be obtained from the farmer and other countryside/farming related organisations listed in the local Working Countryside booklet. If you need any assistance please do not hesitate to contact The Royal Highland Education Trust who will be happy to deal with your enquiry.

EXTENSION B - Comparative Studies

The 5-14 Environmental Studies Curriculum Guidelines encourage comparisons within the UK and with countries in Europe.

It is relatively easy to find information for this study from the internet. The website 'Farms Around The World' (www.disknet.com/indiana_biolab/farms) is a good starting point. Case studies for farms in England and Wales can be found at the National Farmers Union's education page (www.nfu.org.uk/education). Further information about farming in Scotland and links to other websites of interest are available on The Royal Highland Education Trust's website (www.rhet.rhass.org.uk).

EXTENSION C - Developments over time

The 5-14 Environmental Studies Curriculum Guidelines encourage teachers to include topics that look at developments over time. Farming and the countryside are again good areas to be used for this type of project. For example, the agricultural revolution and changes in farming and landscapes over the last 50 years.

It is better to organise the time frame that you wish to study prior to starting the project. For example, visits can be organised to local farming heritage centres. This would enable pupils to have direct experience of farming methods, the machinery used and to take a broader look at farming culture over the years.

Information for these types of projects can be obtained from the CD-ROM 'Agricultural and the Rural Environment', the local Working Countryside booklets and from The Royal Highland Education Trust.

The farm

Name of farmer _____

Where is the farm? circle

town

country

What is a farm? _____

Tick the jobs you think Scottish farmers might do?

- | | | | |
|-----------------|--------------------------|--------------------|--------------------------|
| feed animals | <input type="checkbox"/> | keep wild animals | <input type="checkbox"/> |
| plant crops | <input type="checkbox"/> | grow bananas | <input type="checkbox"/> |
| drive a tractor | <input type="checkbox"/> | drive a police car | <input type="checkbox"/> |
| mend fences | <input type="checkbox"/> | repair televisions | <input type="checkbox"/> |

Circle what you think you might see on the farm?

cattle

fields

sheep

grass

pigs

trees

hens

crops

Anything else? _____

Wordbank

cattle
a number of cows
and/or bulls

crops
plants which are
grown for food, fibre
or fuel

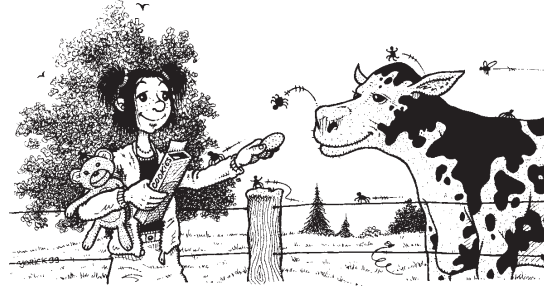
This will provide information regarding pupils' perspectives of a farm.

Safety on the farm and in the countryside

Farms can be dangerous places. It is very important that you stay with your leaders and the farmer.

Follow the **farm rules** and be safe.

Do not touch the animals.



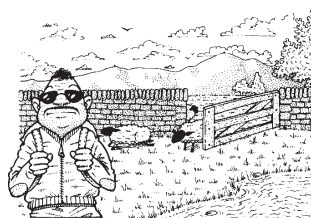
Protect all wildlife.



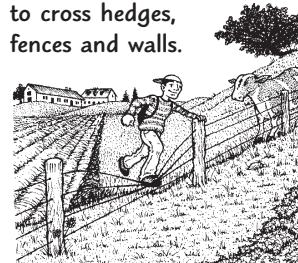
Do not make a lot of noise.



Leave gates as you find them.

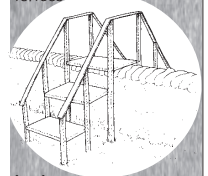


Use gates and stiles to cross hedges, fences and walls.



Wordbank

stile
steps to allow people, but not animals, to get over walls and fences



hedge
a row of trees planted to form a wall

wildlife
plants, trees, birds, insects, mammals that live and grow in the wild

- 1 Do not touch the animals.
All animals, like humans, carry germs and bacteria. If people are not accustomed to being with animals then it is better not to touch them.
- 2 Protect all wildlife.
Wildlife is there to be enjoyed by all visitors. Do not try to approach too closely as you may frighten them. Rather watch from a safe distance. Leave natural places as you find them.
- 3 Do not make a lot of noise.
Visitors to the countryside enjoy peace and quiet. Noise disturbs and frightens wildlife and livestock.
- 4 Leave gates as you find them.
It is important to close gates behind you if you find them closed. This will prevent livestock from straying. Leave gates open as they are, as this could allow livestock access to food, shelter or water.
- 5 Use gates and stiles to cross hedges, fences and walls.
Hedges, fences and walls are to keep livestock in and out of fields and away from danger, such as roads. Open gates should be left open as this could allow livestock access to food, water or shelter.

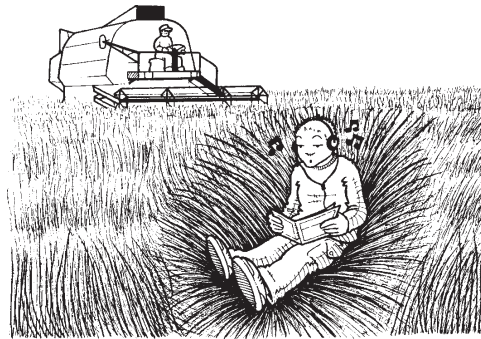
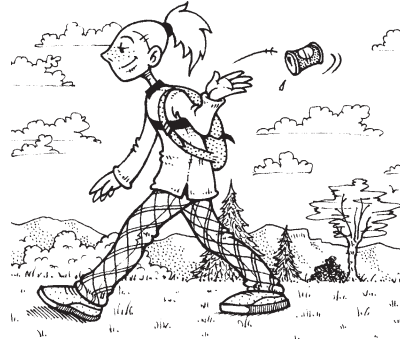
Safety on the farm and in the countryside

Wordbank

These are simple farm rules to follow during the farm visit.

For a copy of the complete country code see 'The Working Countryside Booklet'.

Write rules for these pictures



Do not _____ in crops or on _____.

These rules are to keep you safe.

Remember: Wash your hands before eating.



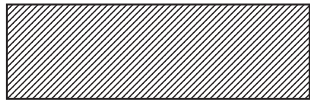
Wash your hands and clean your boots after the visit.

- 6 Take your litter home.
Litter looks unsightly and can cause injury and death to wildlife and livestock. Please leave the countryside tidy - as you would like to find it - and take your litter home.
- 7 Leave livestock, crops and machinery alone.
Livestock and machinery are very dangerous if you are not trained in handling them. They are also very expensive. Livestock and crops provide the farmer's livelihood. It is very important that they are not damaged by visitors to the countryside.

The countryside is there to be enjoyed by all users, but remember it is also a place of work.
When you visit, leave only footprints and take only photographs (and your litter).

What does the farmer do?

Wordbank



Today, farms are more specialised and may only keep one or two types of animals.

We keep animals as pets. However, farmers keep animals to produce food.

Discuss the differences between pets and farm animals.

EXTENSION A

There are many different breeds of farm animals. Find out: -

- what a breed is
- what breeds the farmer uses
- why the farmer uses these breeds

EXTENSION A

Find out what happens to the farm animals once they leave the farm.

Where do they go?

Who buys them?

What kinds of products will they be used in?

EXTENSION A

Meat from different farm animals can be called many different things depending on the part of the animal it came from, the way it has been cut, and if it has been cooked or cured.

Find out about meat, what it is called and about the many ways it can be sold in shops.

Contact British Meat and/or your local butcher.

EXTENSION B

Find out what types of animals are farmed in other countries.

EXTENSION C

In the past, what types of animals would be on a farm? Find out why things have changed?

The farmer will help you answer these questions:

Which animals does the farmer keep? tick

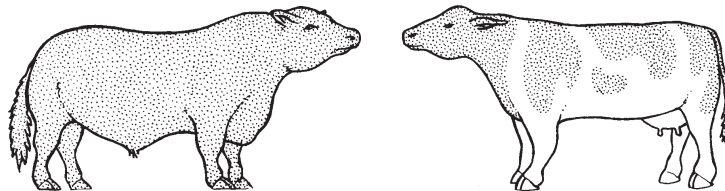
sheep	<input type="checkbox"/>	goats	<input type="checkbox"/>
dairy cattle	<input type="checkbox"/>	hens	<input type="checkbox"/>
beef cattle	<input type="checkbox"/>	ostriches	<input type="checkbox"/>
pigs	<input type="checkbox"/>	deer	<input type="checkbox"/>
sheepdogs	<input type="checkbox"/>	ducks	<input type="checkbox"/>

Do you look after animals? Yes/No

Why?

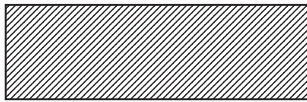
Why does the farmer keep animals? _____

If the farmer has sheepdogs, what do they do?



What does the farmer do?

Wordbank



Farmers grow crops to feed farm animals or for food production.

Why do these types of crops grow in Scotland?

Why are pineapples and bananas not grown?

EXTENSION A

Devise a key to identify these plants.

EXTENSION A

Take the class on a visit to the supermarket or buy a bag of groceries.

Find items produced in Scotland.

EXTENSION B

Find out which crops are grown in other countries and investigate why.

EXTENSION C

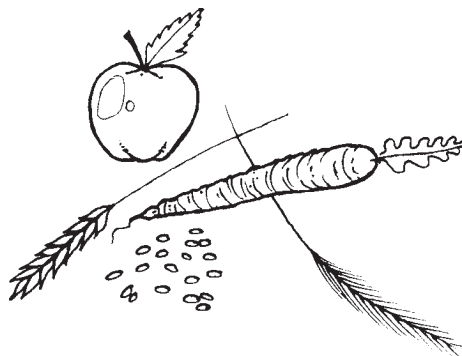
Find out which crops were grown on the farm in the past?

If there have been any changes, find out why they took place.

Which crops does the farmer produce? tick

Cereal	barley <input type="checkbox"/>	Vegetables	cabbage <input type="checkbox"/>
	wheat <input type="checkbox"/>		carrots <input type="checkbox"/>
	oats <input type="checkbox"/>		peas <input type="checkbox"/>
			other _____
Oilseed Rape	<input type="checkbox"/>		
Root	potatoes <input type="checkbox"/>	Soft fruit	strawberries <input type="checkbox"/>
	turnips <input type="checkbox"/>		raspberries <input type="checkbox"/>
			other _____
Bulbs	daffodils <input type="checkbox"/>		
	other _____		

What are crops grown for? _____



What does the farmer do?

What other jobs does the farmer do? tick

maintaining machinery

maintaining buildings

mucking out

painting

office work

other _____

Make a drawing of one of the jobs on your list

Does the farmer have anyone else working on the farm?

Circle

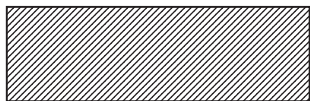
Yes/No

What is done to help the farmer? _____

Wordbank

maintaining
keeping in good condition

mucking out
cleaning out animal buildings



A farm is a business. Apart from raising animals and growing crops there are many other jobs the farmer has to do.

EXTENSION C

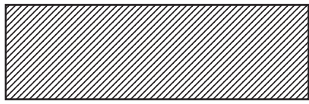
How many people worked on the farm 100 years ago?

What kind of work did they do?

Which invention made a large impact on the size of the farm workforce?

The farmer's day

Wordbank

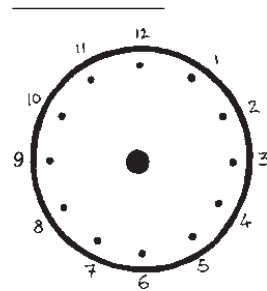
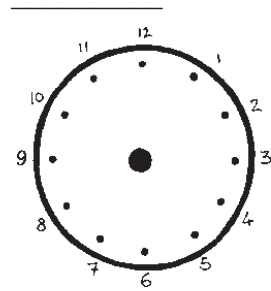


A farmer lives and works in harmony with the seasons. The kind of work varies accordingly.

At busy times of the year the farmer may employ extra workers.

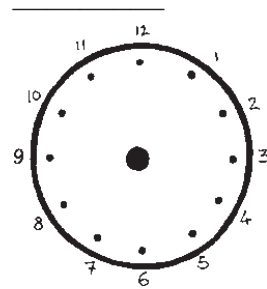
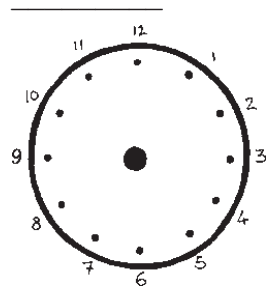
Today school started at:

Today the farmer started work at:



School will finish at:

The farmer will finish work at:



Does the farmer work the same number of hours every day? circle YES / NO

Why?

When does the farmer work the longest hours?

The farm and the weather

Wordbank



A farmer has to work in all weathers.



Farmers are very dependant on the weather. An unseasonal change in the weather can have a great affect on the farmer's livelihood.

What is the weather like today? _____

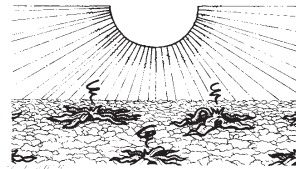
What season is it? circle

spring summer autumn winter

Sometimes bad weather can make the farmer's life more difficult. Difficult weather conditions can affect the farmer's crops and animals.

Match the weather conditions with the drawings.

too much rain



lots of snow



very windy



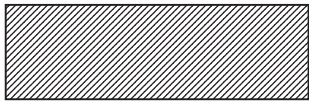
no rain



Animals on the farm

Wordbank

livestock
farm animals



This section deals with the needs of the animals and how they are cared for.

Discuss the differences/similarities between what humans need and what animals need to survive.

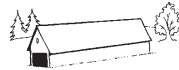
What I need to live

What farm animals need to live



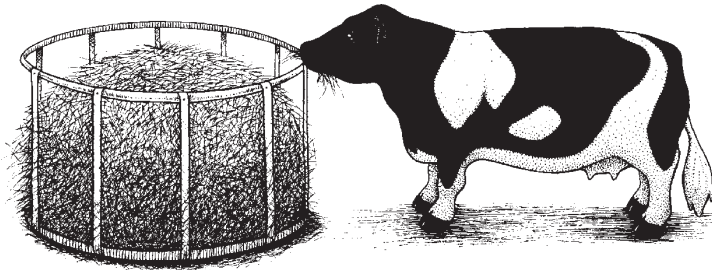






Animals on the farm - care

What are the animals given to eat?



feed ring

How often are they given feed? _____

Does the feed change throughout the year?

What do young animals eat and drink?

How does the farmer know if the animals are healthy?

Wordbank

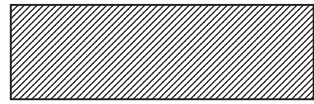
silage
pickled grass

hay
dried grass

cattle mix
different food mixed together to make a more complete food for cattle

barley, oats and wheat
types of cereal

pellets
feed compressed to form small cylinders



EXTENSION A

Where does the farmer get animal feed?

Does he/she grow it, or buy in?

Discuss why the animals' feeding changes throughout the year.

Animals on the farm - care

Like you, sometimes animals become sick.

How are they cared for?



A group of hens is known as a flock. Complete the list of group names.

hens	flock
sheep	_____
pigs	_____
cows	_____
horses	_____
geese	_____
.....	_____

In Scotland a collection of highland cattle is called a fold.

Wordbank

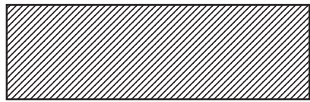
medicine
given to sick animals to make them better

vet
a doctor for animals

isolation
on your own

injection
a way of giving medicine by syringe

diet
the food and drink that an animal eats every day



It is not in the farmer's interest to treat animals badly. Contented animals thrive well.



hens	flock
sheep	flock
pigs	herd
cow	herd
horses	herd
geese	gaggle or flock
ducks	flock

Flock - a large group of animals especially birds or sheep

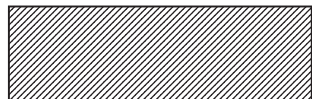
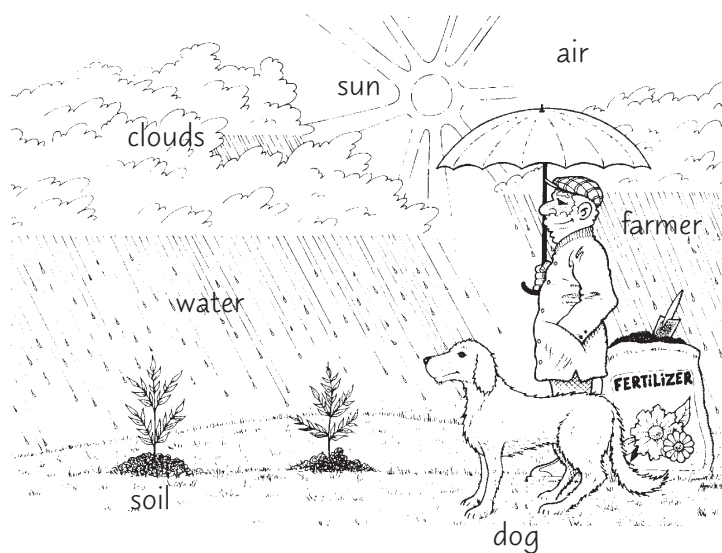
Herd - a large group of mammals living and feeding together

EXTENSION A

Are there any regulations about the care of farm animals? A visit could be arranged by a local SSPCA officer.

Crops on the farm

What do crops need to grow? circle



Plants need water, soil, air and energy from the sun.

To help the plants grow well the farmer puts fertiliser on the soil.

Pesticide is sprayed on to the plants to protect them from pests.

Discuss these processes with the class.



EXTENSION A

Design a bird scarer for the farmer's field.

Crops also need protecting from pests.

Write down two crop pests _____

How is the crop protected from them? _____

Wordbank

protecting
keeping from harm or damage

pests
animals, plants or diseases that destroy or harm crops

Crops on the farm

What is in the fields? circle

crops

bare soil

grass

Which crops are growing? _____

Fields with bare soil will soon have _____ .

Grass is a very important crop to the farmer. It is used for 3 things:-

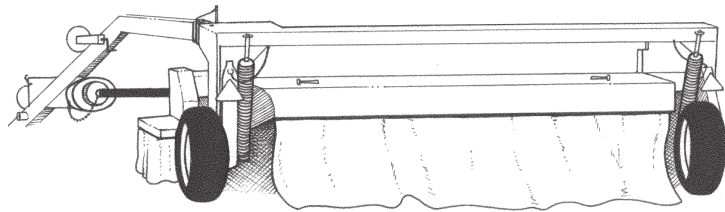
grazing

making hay

making silage



Tick what grass is used for on this farm.



This is a mower for cutting grass. It is attached to the back of a tractor.

Wordbank

hay
dried grass

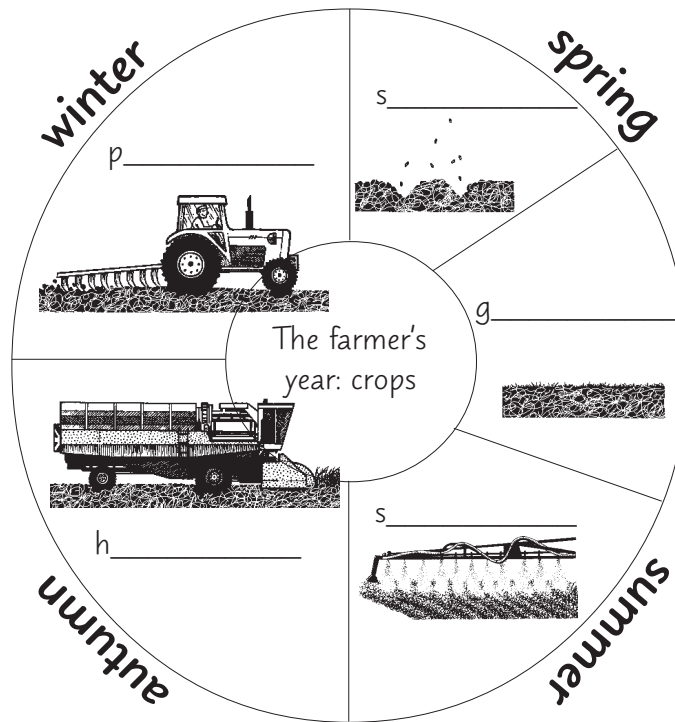
silage
pickled grass

grazing
animals eating grass



Discover how hay and silage are produced.

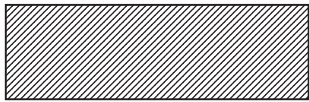
Crops on the farm



This circle shows the jobs farmers do throughout the year to grow crops.

Write in words from the box to show what happens during the seasons.

spraying (with pesticide)	harvesting
fertilising	ploughing
growing	sowing



This page introduces the crop cycle.

The illustration provides pupils with a simplified model.

The weather, type of crop and location all have a bearing on when these operations take place. For example, if winter wheat is being grown it will be sown in the autumn.

EXTENSION A

Keep a farming diary throughout the year. Include weather and when events take place. Add photographs to show the progress of crops/ animals.

EXTENSION B

Compare timing of operations in different areas and/or countries. Why are they different or similar?

Wordbank

ploughing
turning over the soil to prepare for a new crop

sowing
planting seeds

fertilising
putting nutrients on the land to help the plants grow

spraying (with pesticide)
putting a chemical on the crop to protect it from disease and insects

harvesting
cutting the ripe crop

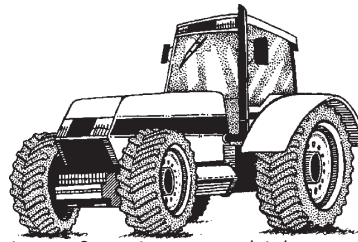
Machinery on the farm

Machines help the farmer to carry out many jobs around the farm.

The tractor

What is the tractor used for?

What was used before tractors? _____



Draw one piece of equipment which can be attached to a tractor.

What is it called? _____

Wordbank



The tractor is an essential piece of farm equipment that can be put to many uses.

In the past heavy horses, such as Clydesdales, would have been used for the jobs tractors do today.

Find out the 'horsepower' of the tractor. Why is the tractor's power measured in this unit?

There are many pieces of equipment that can be added to the tractor.

Photographs could be taken of the tractor and the different tractor attachments.

EXTENSION B

What type of farm machinery is used in other countries?

EXTENSION C

Find out about the types of equipment that were used with the horses.

How has technology affected the number of people needed to work on farms?

Wildlife on the farm

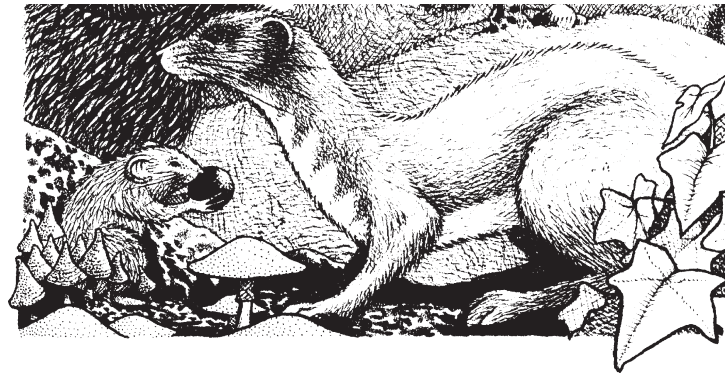
Tick the wildlife you have seen on the farm.

- rabbits
- foxes
- mice
- squirrels
- hares
- hedgehogs
- insects
- trees
- bushes
- any other _____

- Birds**
- blackbird
 - swallow
 - crow
 - pigeon
 - herring gull
 - sparrow
 - tits
 - robin
 - any other _____

What were they doing? _____

Why are they here? _____



Wordbank

wildlife
plants, trees, birds,
insects, mammals
that live and grow in
the wild



The countryside is a work place employing many people.

The production of food is perhaps one of the most important rural industries.

The countryside also provides a home for wildlife. Trees, birds, insects and plants are easily seen. Pupils may also see evidence of mammals.

Which animals might be attracted to farms? Why?

EXTENSION C

Find out if there has been any changes in wildlife populations through time. If so, why?

The countryside

Tick the features you have seen on or near the farm.

hills	<input type="checkbox"/>	river	<input type="checkbox"/>
moorland	<input type="checkbox"/>	burns	<input type="checkbox"/>
woodland	<input type="checkbox"/>	ditches	<input type="checkbox"/>
hedgerows	<input type="checkbox"/>	shelter belts	<input type="checkbox"/>
fields	<input type="checkbox"/>	verges	<input type="checkbox"/>
set-aside	<input type="checkbox"/>	buffer strips	<input type="checkbox"/>
tram-lines	<input type="checkbox"/>	wildlife areas	<input type="checkbox"/>

Has the farmer done anything to enhance the countryside?

Many people go to the countryside to enjoy walking, cycling and camping. What do you enjoy doing in the countryside? _____

It is important when people are in the countryside that they follow the Country Code. Why? _____



Wordbank

moorland
open uncultivated land often covered in heather

hedgerow
a row of bushes forming a hedge

set-aside
land which the farmer takes out of production to meet European regulations

tram-lines
tracks in fields of crops where the tractor and other machinery can go on to move about the field

ditch
drainage channel

shelter-belt
trees which give protection from the wind

verge
an edge or border

buffer strip
land which borders fields to stop chemicals and/or fertilisers reaching rivers, trees and other wildlife areas

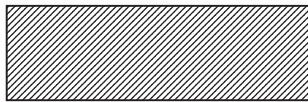
enhance
improve, make better



The countryside has been shaped by the toil of farmers for hundreds of years.

Look at old maps and photographs to discover what it looked like in the past.

Farmers and landowners look after the countryside along with other organisations such as countryside rangers, Scottish Natural Heritage, the Scottish Environmental Protection Agency and other organisations interested in the environment.



EXTENSION A

Find out about all the activities that take place in the countryside near you.

Design a poster giving information about life in the countryside near you.

The countryside

Everyone and every living thing is totally dependant on the natural environment.

Tick those which are part of the natural environment.

sun	<input type="checkbox"/>	plants	<input type="checkbox"/>
buildings	<input type="checkbox"/>	harbours	<input type="checkbox"/>
water	<input type="checkbox"/>	insects	<input type="checkbox"/>
air	<input type="checkbox"/>	birds	<input type="checkbox"/>
supermarkets	<input type="checkbox"/>	sea	<input type="checkbox"/>
land	<input type="checkbox"/>	cars	<input type="checkbox"/>
roads	<input type="checkbox"/>	schools	<input type="checkbox"/>
fish	<input type="checkbox"/>	animals	<input type="checkbox"/>

Why are we dependant on the natural environment?

Does the natural environment need our help? Yes / No
Why?

What can we do to help the natural environment?

Wordbank

dependant
rely on or need

natural
existing in, or
produced by nature

environment
surroundings

Farming is a business that is very dependant on the natural environment. The farm's location also has a major bearing on the enterprise.

Farming also takes things from the natural environment and it is important that these are replaced. For example, nutrients from the soil.

Farming activities utilise the earth's resources. Farmers are aware that the agricultural methods employed need to take careful account of their environmental impact. It is important that processes used in food production do not infringe upon the ability of forthcoming generations to sustain life.

EXTENSION A, B or C

Find examples local, historical and/or worldwide where the natural environment has had a great effect on farming and food production.

Here are some example to start:-

- Local - 1998 was a very bad year for crops
- Historical - The bible story of Joseph and his dreams
- Worldwide - famine in Africa

The Royal Highland Education Trust,
Royal Highland Centre,
Ingliston, Edinburgh,
EH28 8NF.

Tel: 0131-335-6227

Fax: 0131-333-5236

e-mail: rhet@rhass.org.uk



Aberdeen Environmental Education Centre,
Top Floor, Skene Square School,
61 Skene Square,
Aberdeen,
AB25 4UN.

Tel: 01224-640864

Fax: 01224-639626

e-mail: aeec@cwcom.net

Devised and edited by Allan Paterson,
Sarah Rose & Susan Stewart
Illustrated by Yorick Corre
Layout by Sarah Rose & Steve Donaldson

Produced by The Royal Highland Education Trust
in Partnership with Aberdeen Environmental Education Centre.