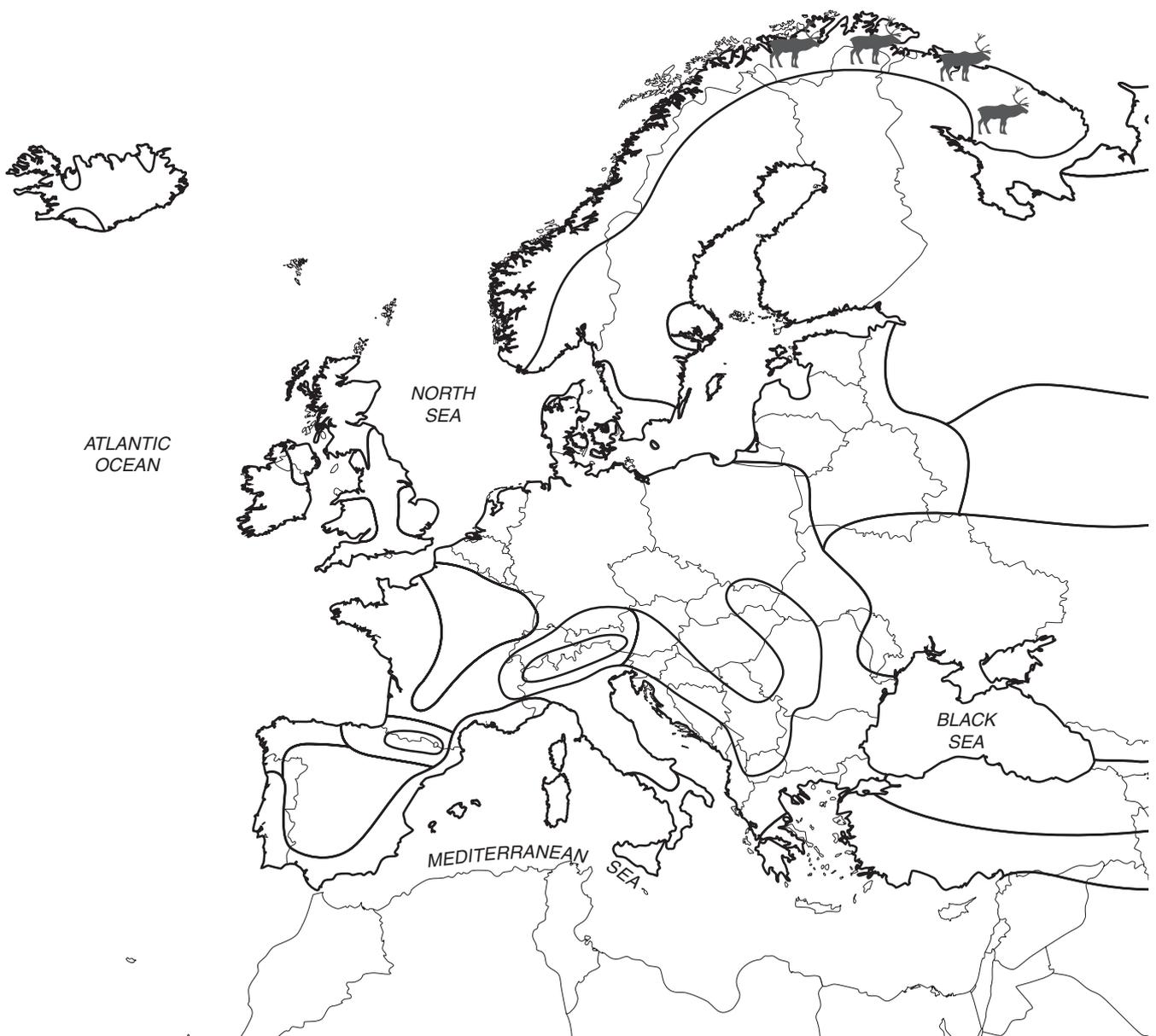
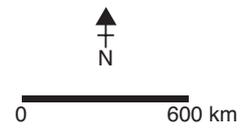


Worksheet 39 Outline map of Europe: farming patterns

Key	
	unsuitable for farming (too cold or mountainous)
	mostly woods and forests
	mostly arable (crop growing) with some animals (e.g. pigs)
	mostly arable cereals (e.g. wheat)
	mostly animal rearing, dairy cattle on lowlands and sheep on hills
	Mediterranean farming, mostly vines, orchards and salad crops
	reindeer



Worksheet 40 Farming at Rushall Farm, Berkshire, UK: an ICT investigation

In this activity you will use the internet to find out about farming practices at a mixed organic farm in the UK. Rushall Farm is situated between Reading and Newbury, in Southern England. The farmer grows a range of crops and keeps livestock – this is why it is called a mixed farm. Mixed farming is very widespread throughout Europe. Since 2000 the farm has been organic.



ICT ACTIVITIES

- 1 Access the Farming and Countryside Education website at **www.face-online.org.uk**. Click 'Farm Profiles' and then 'Rushall Farm'. Click the links to answer the following questions. Use photographs to illustrate your study if you wish.
 - a) How large is the farm (in hectares)?
 - b) When did the farmer start to farm organically?
- 2 Go to the Soil Association's website **www.soilassociation.org** and click on 'Consumer Guide' and 'What is organic?'
 - a) What does organic farming mean?
 - b) Why are more people choosing to buy organic food and drink?
- 3 Now return to the Rushall Farm profile site. Click 'Land Use' to see how the farmer uses his land.
 - a) In 1998, 600 acres of land were farmed for crops (arable farming). How has this changed since the farm became organic?
 - b) Read on to discover why the farmer now has more land under grass (pasture).
 - c) What is meant by 'crop rotation' and why is this an important part of organic farming?
 - d) What are the uses of wheat?
 - e) What is triticale and why is it grown?
 - f) Read through the section on Stewardship. Describe what Stewardship means. Do you think it is a good idea?
- 4 Click 'Livestock' to find out about the animals kept on the farm.
 - a) Most of the animals kept on the farm are sheep. True or false?
 - b) Are 'suckler cows' kept for milk or for meat?
 - c) Why are the sheep brought indoors during the winter?
 - d) Some of the lamb meat is sold at local farm shops. What happens to the rest of it?
 - e) In the summer the sheep are sheared for their wool. How much money does each sheep's fleece make?
- 5 Now conduct your own investigation to find out more about the wildlife found on the farm. Click 'Wildlife' to discover the birds and animals found at Rushall Farm. Now use your search engine to find out what these birds and animals look like and what kind of environments they like to live in. See if you can discover some benefits and disadvantages of these birds and animals to farmers – farmers do not always welcome them!

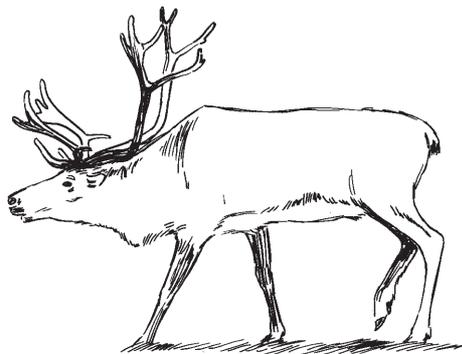
Worksheet 41 Reindeer migration in Sweden

Reindeer herding is a traditional form of farming that takes place in the far north of Europe. Reindeer are extremely well adapted to living in these cold and hostile environments:

- A reindeer has small ears and tail to reduce heat loss.
- The coat is extremely thick, providing excellent insulation.
- Males often have a layer of fat beneath the skin as a store of energy and to provide further insulation.
- Feet are covered with thick fur, which acts as tread to help reindeer grip on slippery surfaces.
- Wide feet enable reindeer to move over snow without sinking in.
- Antlers can be used to scrape away snow to help reindeer find food.

During the course of a year, reindeer herds migrate over large distances. In the summer, reindeer herds move north to the cooler upland parts of the country. There are two main reasons for this migration. Firstly, the melting snow reveals plenty of food in the form of lichens and grasses. Secondly, the biting insects such as mosquitoes are less likely to be found in these cooler environments than in the warmer regions further south.

As winter approaches the reindeer are herded together and moved south to forested areas away from the cold, desolate northern regions. Forests in the south provide shelter and an abundance of vegetation to see the reindeer through the winter.



▲ Figure 1 Reindeer adaptations

Activity

1 Study Figure 1.

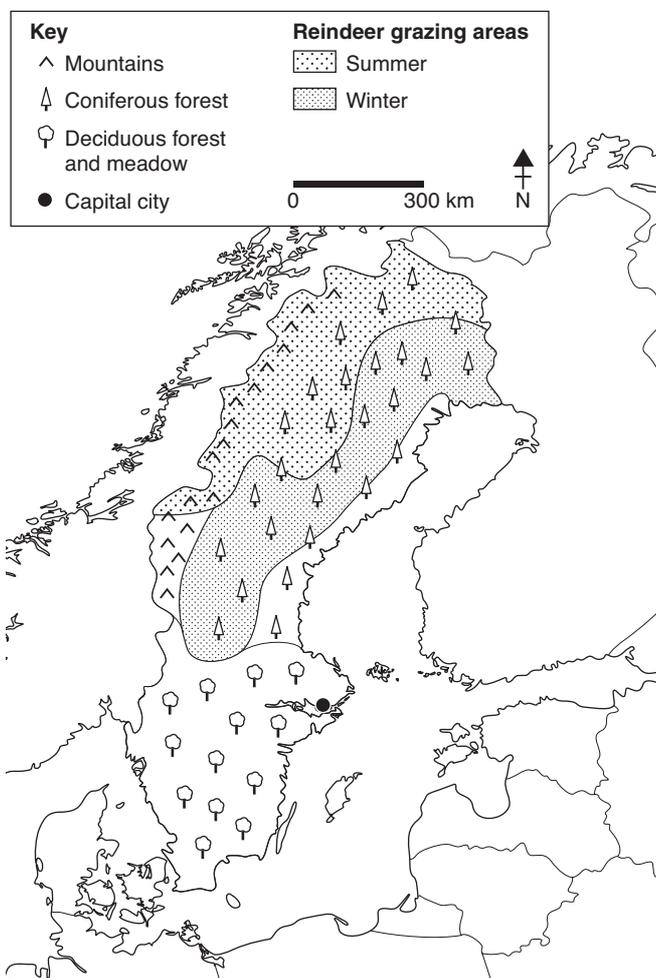
- Add detailed labels to the reindeer sketch to describe how the reindeer is well adapted to live in the hostile sub-Arctic environment.
- Why would an animal with long ears not be very well adapted to living in the sub-Arctic?
- How are reindeer well adapted to walk on slippery and snow-covered ground?
- What do people wear if they want to walk on snow?
- How are reindeer insulated from the intense cold?
- Can you think how parts of your home are insulated to retain heat?

Activity

2 Study Figure 2.

- a) Look at the key to see how the summer and winter grazing areas are shown. Use a blue colour to shade the winter grazing areas and a red colour to shade the summer grazing areas.
- b) Now use a few red and blue arrows to show the seasonal migration of the reindeer between the two areas.
- c) Use an atlas map or the atlas map on the inside back cover of the Pupil's Book to

- complete the map by naming Sweden's capital city and labelling the Gulf of Bothnia and the Baltic Sea. Also, name the other countries shown on Figure 2.
- d) During which season do reindeer migrate to the mountains?
- e) Why do they move to the mountains?
- f) Why in the winter are reindeer found in the forested parts of Sweden?
- g) Why do you think reindeer herding does not occur in southern Sweden?



▲ **Figure 2** Reindeer grazing areas in Sweden

Worksheet 42 Global orange production

In Europe, the biggest producers of oranges are Spain and Italy. If you have travelled to these countries you may have seen huge areas of orange groves. However, whilst these two countries are large producers of oranges in Europe, globally they are outside the top five!

By far the main producer of oranges is Brazil. This may be a surprise as most people think it is Florida in the USA. Between them, Brazil and the USA account for over 42% of the world's oranges.

Activity

- 1 Read through the extract in Figure 1.
 - a) How are the oranges harvested from the trees?
 - b) Why do you think most of Brazil's oranges are pressed for juice rather than being exported whole?
 - c) Why do you think Europe, including the UK, is a big market for Brazilian orange juice?
 - d) When did Brazil become the top producer of oranges worldwide?

▼ Figure 1 Growing oranges in Brazil

Where do you think your orange juice comes from?

Throughout Sao Paulo state, a long harvest is beginning for more than 35,000 estates, as farm workers pick their orchards clean of ripe oranges, and pack them into crates to be taken away.

Most of the oranges are actually processed into juice, rather than eaten whole. The orange juice is then exported to the UK and other European Union countries, as well as Asia and the Arab world. But when people buy

orange juice cartons from Sainsbury's or Tesco, they are often unaware of where the juice originally came from.

If asked which country their orange juice was produced, most shoppers would probably say Florida. However, Sao Paulo, a state in Brazil, actually became the biggest producer of orange juice in the world, more than 25 years ago in the 1980s, when it overtook Florida.

Activity

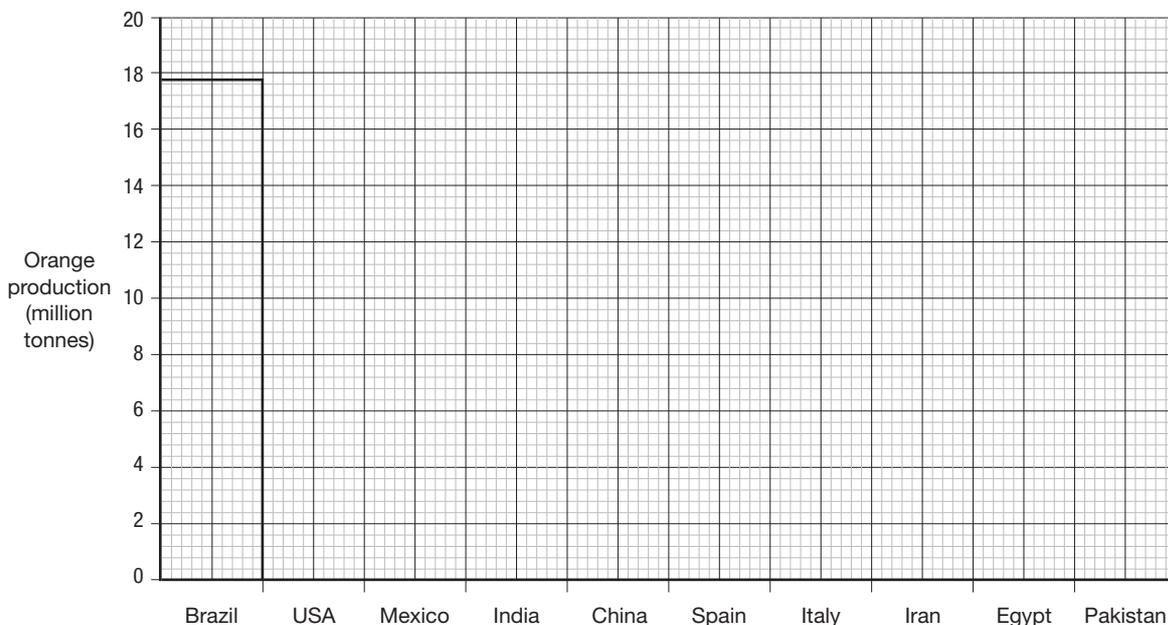
2 Study Figure 2.

- a) Represent the data by completing the bar graph in Figure 3.
- b) Use a colour (orange?!) to shade the bars.
- c) Look at Figure 14 on page 102 of the Pupil's Book and list three other countries that produce oranges.

3 In the UK, oranges were sometimes grown in greenhouses called 'orangeries' attached to grand country houses. You may have seen an orangery if your parents have dragged you round a National Trust house! How does this help to explain why oranges are not widely grown in the UK?

▼ **Figure 2 Top ten orange producers in the world, 2005**

Top orange producers, 2005 (million tonnes)	
Brazil	17.8
United States	8.4
Mexico	4.1
India	3.1
China	2.4
Spain	2.3
Italy	2.2
Iran	1.9
Egypt	1.8
Pakistan	1.6
World total	61.7



▲ **Figure 3 Bar graph showing top ten orange producers in the world, 2005**