

SUSSEX: THE SOUTH DOWNS

LINKS TO NATIONAL CURRICULUM

Science

- Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other (*Year 2, Living things and their habitats*).
- Identify and name a variety of plants and animals in their habitats (*Year 2, Living things and their habitats*).
- Recognise that environments can change and that this can sometimes pose dangers to living things: Pupils should explore examples of human impact (both positive and negative) on environments (*Year 4, Living things and their habitats*).

Geography

- Pupils should develop knowledge about the World, the United Kingdom and their locality (*Key Stage 1*)
- Use fieldwork to observe, measure, record and present the human and physical features in the local area (*Key Stage 2*)
- Understand how human and physical processes interact to influence, and change landscapes, environments and the climate (*Key stage 3*).

KEY AREAS COVERED

1. Introduction to Sussex - location, history, size, sub-regions
2. Geography of the South Downs - farming, landscape and habitats
3. Protected areas of the South Downs
4. Plants of the South Downs
5. Animals of the South Downs
6. Human impact on the South Downs
7. Suggested activities linked to the Science National Curriculum

Note to Teachers

- These teaching notes run alongside a Powerpoint presentation and all slides are referred to in the notes.
- The notes are designed to provide key information about the region, whilst the presentation is full of effective images that will bring it to life for students in the classroom.
- Can be adapted to suit different ages of students by adding/deleting slides on the presentation and/or varying the level of detail used from the teacher notes.

GLOSSARY OF KEY WORDS **(in alphabetical order)**

AONB - Area of Outstanding Natural Beauty.

Arable farming - the growing of crops.

Biodiversity - the variety of living things in a given place.

Chalk - a type of soft, light-coloured rock.

Chalk escarpment - has a gentle slope (or dip) on one side and a steeper slope (or scarp) on the other.

Deciduous tree - have leaves which fall off each year.

Dry valley - a valley originally produced by running water but now waterless.

Erosion - when water, wind, and other forces cause rocks and earth to wear away.

Evergreen tree - have leaves that remain green all year long.

Global warming - a raising of average global temperatures that is thought to be a result of increased levels of certain gases e.g. carbon dioxide and methane in the atmosphere.

Intensive farming - a way of producing large amounts of crops by using chemicals and machines.

Livestock - farm animals (such as sheep, cows, horses, and pigs) that are kept, raised, and used by people.

Prevailing wind - the usual wind in an area or region.

SSSI - Site of Special Scientific Interest.

1. INTRODUCTION TO SUSSEX

Location

Slide 3: Located around 50 miles south of London, in the south-east of England, lies the ancient county of Sussex.

History

The history of human habitation in Sussex goes back to the Old Stone Age and the oldest hominid remains known in Britain were found at Eartham Pit, Boxgrove in West Sussex. The foundation of the Kingdom of Sussex is recorded by the Anglo-Saxon Chronicle for the year AD 477 and the archaeology suggests that Saxons started to settle in the area in the late 5th century.

The county's name is derived from the tribe who once ruled the area - the South Saxons. In the 9th century Sussex was known as Suth Seaxe (*Suth* meaning south and *Seaxe* meaning Saxon). By the time of the Domesday Book (1086) it was called Sudsexe.

Slide 4: Sussex boasts a number of spectacular castles which cover a wide range of history. The coast of Roman Britain had a series of defensive forts on them, such as Pevensey Castle which has a history dating back to the 4th century.

Area and Population

Sussex is one of the largest counties in England, encompassing about 1,461 square miles. It is 75 miles long and between 22 and 25 miles wide. The population of Sussex is around 1.6 million.

Sub-Regions

Slide 5: Sussex has a fantastically varied landscape. The county can be divided into 3 geographical sub-regions:

1. The coastal plain
2. The South Downs
3. The Weald

There is a set of teaching notes with an accompanying presentation for each of these sub-regions.

2. GEOGRAPHY OF THE SOUTH DOWNS

Slides 7-8: The South Downs is a long **chalk escarpment** that extends from the Itchen Valley, Hampshire in the west to Beachy Head, Sussex in the east. It stretches for over 70 miles and is recognised as one of the most important chalk landscapes in England.

The South Downs can be divided into three parts:

1. The East Hampshire Downs
2. The Western Downs
3. The Eastern Downs

The Western and Eastern Downs are often collectively referred to as the **Sussex Downs**.

Farming on the South Downs

Although the landscape of the South Downs may look natural, it is better described as 'semi-natural'. It owes its beauty and diversity to centuries of care and management by farmers and landowners.

Slide 9: The ancient chalk downlands have been grazed by livestock for thousands of years. Bronze Age farmers first cleared large areas of woodland from the South Downs 6,000 years ago. Medieval sheep farmers grazed their herds on the chalk grasslands, creating the conditions for wildflowers and butterflies to flourish. Without these centuries of cultivation, we would not have the sweeping chalk grassland, lowland heath and lush woodland that exist today.

Today about 85% of the South Downs is still farmed. Farming provides food, jobs and beautiful countryside. It is at the heart of the area's vibrant rural economy.

Slide 10: **Arable** farming is the main farming type on the South Downs; cereal crops such as barley, wheat, oats and maize are grown, together with oilseeds and pulses.

Slide 11: But it is **livestock** farming that is vital to countryside management here. Many types of habitat, particularly chalk grassland, must be managed by grazing. The rolling hills of the South Downs are perfect for sheep production and they have been grazing there for centuries. Their grazing helps conserve the flower-rich chalk grassland. If they were to stop grazing, scrub and trees would grow up and scarcer species could disappear. So farming helps **biodiversity** in the South Downs.

Contrasting Landscape and Habitats

The South Downs are characterised by rolling chalk downland with close-cropped turf and numerous **dry valleys**. But whilst chalk downland is the iconic habitat, there are several others including coastal, heathland and ancient woodland:

Chalk Grassland Habitat

Slide 12 : Chalk grassland is found over limestone and chalk rocks. It grows below an altitude of 250 metres, mainly in the warmer and drier south and east of the UK. Chalk forms gentle hills inland and steep cliffs at the coast.

Slide 13: **Dry valleys** are a common feature of chalk grasslands. These were eroded by fast-flowing surface streams towards the end of the last Ice Age. Devil's Dyke is a 100 metre deep V-shaped dry valley which scientists believe was formed just over 10,000 years ago.

Chalk grassland is one of the richest habitats of Western Europe, supporting a range of wildlife including wildflowers, insects, mammals and birds. Many of the species are unable to live anywhere else.

Coastal Habitat

Slides 14-16: The highest point along the coast is the cliff top at Beachy Head which stands at 162 metres (531 feet) high. Coastal **erosion** has created a series of valleys and rolling cliffs to the west of Beachy Head known as the Seven Sisters. The 'sisters' are the valleys between the chalk hills.

Slide 17: On the cliff tops there are no tall trees and bushes are rare. But small trees and bushes are common away from the cliff top and grow bent away from the **prevailing** wind direction.

Slide 18: The chalk cliff faces are full of ledges, small caves and cavities that are ideal nesting sites for sea gulls and rock pigeons.

Chalk Heath Habitat

Slide 19: This is a rare habitat type and is found at Lullington Heath National Nature Reserve. The plants that live here are adapted to survive on poor soils and dry or waterlogged conditions. They include small shrubs such as heathers and gorses, fine grasses and mosses.

Woodland Habitat

Slide 20: There is a rich mix of woodland types on the South Downs including large yew woodlands, steep valley sides covered in hangar woodlands, large oak and beech woodlands and traditional coppice.

3. PROTECTED AREAS OF THE SOUTH DOWNS

History

Slide 21: Starting in the 1940s, large areas of grassland were ploughed up for farming, which significantly affected the landscape and ecology of the area, leading to a loss of **biodiversity**. Old chalk grassland once made up 40 to 50% of the eastern Downs and today it is only 3 to 4%. This, together with pressure for development from surrounding settlements, led to the creation of the **South Downs National Park** to protect and restore the Downs.

Slide 22: In addition to the National Park, much of the area is designated as **AONB**, **SSSI** or is protected by nature reserves, county councils or other organisations.

South Downs National Park (shared with Hampshire)

Slide 23: A national park is an area of protected countryside that everyone can visit. There are fifteen national parks in Britain. The South Downs National Park was established in 2009 and covers an area of 1600 square kilometres. Within the national park there is a very varied landscape, including ancient woodlands and wildflower meadows. It should be noted that the South Downs National Park forms a much larger area than the chalk range of the South Downs and includes large parts of the Weald. For more information on the South Downs National Park, please see the website: <https://www.southdowns.gov.uk/>

Sites of Special Scientific Interest (SSSI)

Sites of Special Scientific Interest (SSSIs) are protected by law to conserve the wildlife or geology of an area. Within the South Downs Environmentally Sensitive Area there are 37 SSSIs, including large areas of chalk grassland.

Slide 24: The Lewes Brooks Site of Special Scientific Interest (SSSI) encompasses 330 hectares of the floodplain to the south of Lewes.

Areas of Outstanding Natural Beauty (AONB)

An AONB is an area of countryside that has been designated for conservation due to its significant landscape value. There are 46 AONBs in the UK and the Sussex Downs is one of them.

Local Nature Reserves

Slide 25: There are a number of local reserves on the South Downs. Malling Down Local Nature Reserve is owned and managed by the Sussex Wildlife Trust. The Trust's rare breed sheep graze the reserve throughout the year to maintain the

short turf which is vital to the survival of many species of plants and animals. For more information on Malling Down, please see here:

<https://sussexwildlifetrust.org.uk/visit/malling-down>

Here you can find information on a number of other local nature reserves on the South Downs.

<http://www.sussex-southdowns-guide.com/south-downs-nature-reserves.html>

National Nature Reserves

National Nature Reserves are designated as key places for wildlife and natural features; they often contain rare species or species that are of national importance. The South Downs contain a number of National Nature Reserves:

Castle Hill (slide 26)

- Main habitats: lowland chalk grassland and mixed scrub
- So rich in orchids that it is recognised as of European importance
- 31 species of butterfly recorded
- Wide variety of grasshopper, cricket and leafhopper species

<http://www.brighton-hove.gov.uk/content/leisure-and-libraries/parks-and-green-spaces/castle-hill-national-nature-reserve>

Kingley Vale (slide 27)

- Main habitats: yew woodland and lowland chalk grassland
- Known for its twisted and ancient yews
- 11 different species of orchid
- Over 50 species of birds
- 39 species of butterfly

<http://www.westsussex.info/kingley-vale.shtml>

Lewes Downs / Mount Caburn (slide 28)

- Main habitat: Lowland chalk grassland
- Caburn is unusual within the South Downs for having a south-facing scarp slope. Designated a **Special Area of Conservation** as an example of orchid-rich chalk grassland
- Home to a good population of stonechats

Lullington Heath (slide 29)

- Main habitat: lowland grassland and lowland chalk heath
- Over 250 types of plant grow here.
- More than 98 types of bird have been seen, 50 of which nest on the reserve.

<http://publications.naturalengland.org.uk/publication/5584159>

The South Downs Way

Slide 30: The South Downs Way is 160km of easily accessible footpaths and bridleways that stretch almost the length of Sussex, following the entire length of the chalk ridge from the Hampshire border to Beachy Head.

Find out more about the South Downs Way here:

<https://www.nationaltrail.co.uk/south-downs-way>

4. PLANTS OF THE SOUTH DOWNS

Slide 32: If chalk grassland is managed well, the short springy grass can support a diverse range of wildflowers. The thin lime-rich soils attract plants that don't grow in other soils and there are a number of nationally scarce species here. Commonly found flowers such as scabious can be found alongside nationally rare plants such as the pasque flower.

There are too many species to list them all here, but below are some of the wildflowers you can commonly expect to see growing on the South Downs:

Chalk Grassland Wildflowers

Slide 33: Kidney vetch, horseshoe vetch and birdsfoot trefoil

Slide 34: Fairy flax, dropwort and chalk milkwort

Slide 35: Scabious

Slide 36: Wild thyme, marjoram and wild basil

Slide 37: Vipers-bugloss

Orchids include:

Slide 38: Early spider orchid

Slide 39: Fragrant orchid, common spotted orchid and autumn lady's tresses

Slide 40: Early purple orchid and common spotted orchid

Slide 41: Burnt-tip orchid

Slide 42: Frog orchid, bee orchid and fly orchid

There are also some rarer wildflowers you may be lucky enough to spot:

Slide 43: Round-headed rampion

Slide 44: The pasque flower

Slide 45: Sweet briar rose

Chalk Heathland Plants

A heathland is an open landscape dominated by low-growing plants, mainly species of heather and gorse as well as bracken, heathland grasses, herbs and mosses. A few species commonly found on chalk heathland are:

Slide 46: Bell heather

Slide 47: Gorse

Slide 48: Tormentil

Trees

Sussex is one of the top three most wooded counties in England and the South Downs is the most forested National Park in England or Wales. Much of the woodland in the South Downs is classed as ancient woodland.

There are many species of trees in the South Downs. Some of the most commonly seen include:

Slides 49-50 : Yew

- Yew is an **evergreen** conifer that can reach 400-600 years old. They are commonly found growing in southern England.
- Kingley Vale National Nature Reserve has a grove of ancient yew trees which are believed to be amongst the oldest living things in Britain.

Slide 51: Beech

- A large **deciduous** tree that can live for hundreds of years.
- A beech tree on the South Downs, standing at 144 feet tall, has been declared the tallest native tree in Britain. The tree, which is thought to be almost 200 years old, stands in Newtimber Woods on the National Trust's Devil's Dyke Estate on the South Downs.

Slide 52: Ash

- Ash is deciduous and the third most common tree in Britain.
- It can reach a height of 35 metres and live as long as 400 years.
- Ash trees are currently being affected by Chalara dieback of ash and the woodland officer for the South Downs National Park Authority believes it will change the face of the South Downs woodlands.

Slide 53: Oak

- Oak is the most common tree species in the UK.
- It is a large deciduous tree that grows up to 20-40 metres tall.
- Oak trees do not produce acorns until they are at least 40 years old.

Slide 54: Hawthorn

- A deciduous tree that is also known as the 'may-tree' as this is when it flowers.
- Mature trees can reach a height of 15 metres.

Slide 55: Holly

- An evergreen shrub that can grow up to 15 metres and live for 300 years.
- The berries are a vital source of food for birds in winter and are also eaten by small mammals such as wood mice and dormice.

5. ANIMALS OF THE SOUTH DOWNS

The South Downs is a vital habitat supporting a wealth of mammals, invertebrates and birds. Where available please see the link to a YPTE fact sheet containing further information on a species.

Mammals

Sheep (slide 57)

- Hundreds of sheep graze the South Downs and help conserve the flower-rich chalk grassland.

Roe Dee (slide 58)

- A small deer
- One of Britain's native deer species and have become the most widespread
- Do not live in herds and tend to be seen as solitary individuals or as a small family group of the mother and her offspring
- Live in woods but may venture into grasslands and sparse forest
- When alarmed will bark a sound like a dog.

Fallow Deer (slide 59)

- A medium-sized deer
- Typically have a spotted coat but in some individuals the spots are not very prominent and can disappear in winter
- Very variable in colour - some are white, others are very dark brown
- Typically live in small herds of 10-50 animals, usually in open woodland and parkland. Also frequent small woodlands in farming country, sheltering in the woodland by day and coming out to feed on farmland at night.

<http://yppte.org.uk/factsheets/deer-fallow/overview>

Red Fox (slide 60)

- Our only wild member of the dog family
- Live in family groups in dens
- Have excellent vision, smell and touch and can produce 28 different calls
- Just as likely to be seen in towns and cities as in the countryside
- Males bark and females make a spine-chilling scream, heard mostly in winter which is their breeding season.

<http://yppte.org.uk/factsheets/fox-red/overview>

Badger (slide 61)

- Preferred habitat is woodland close to arable farmland

- Live in underground burrows, called setts, in social groups usually of between 4 and 12 badgers
- Signs of badger activity can be seen more easily than the animal itself. Look for heavily worn badger paths with distinctive 5-toed footprints, claw marks on trees, dung pits, mounds of earth outside the entrances to setts and coarse, wiry badger hair.

<http://ypte.org.uk/factsheets/badgers/overview>

<http://ypte.org.uk/videos/badgers>

Brown Hare (slide 62)

- At their most visible in early spring as the breeding season encourages fighting or 'boxing'. This is usually a female responding to unwanted attention from a male.
- Larger than the rabbit, with longer legs and longer ears with black tips
- Powerful hind legs used to escape enemies and they have been known to reach speeds of 45 miles per hour!

<http://ypte.org.uk/factsheets/hare-brown/overview>

Weasel (slide 63)

- Our smallest carnivore
- Look similar to stoats but weasels don't have a black tip to their tails
- Very active hunters and must eat every 24 hours to avoid starvation, so are active both day and night.

<http://ypte.org.uk/factsheets/weasel/overview>

Hazel Dormouse / Common Mouse (slide 64)

- Mainly nocturnal so rarely seen
- Hibernate in the winter months when food is scarce, to save energy
- May spend up to three quarters of their lives asleep!
- Spend most of the spring and summer up in branches rarely coming down to the ground.

<http://ypte.org.uk/factsheets/dormouse/overview>

Harvest Mouse (slide 65)

- They shred grasses by pulling them through their teeth and use the strips to weave a hollow nest, about the size of a tennis ball, about 50 - 100 cm above the ground
- Less active in winter but do not hibernate; they stay close to the ground for warmth and insulation and store food to feed them through the winter months.

<http://ypte.org.uk/factsheets/mouse-harvest/overview>

Hedgehog (slide 66)

- The only British mammal with spines
- In the summer they spend most of the day sheltering in a nest of leaves, moss and grass. They come out at night and can be heard snuffling and grunting as they look for food
- In the autumn they find a sheltered spot, often under a hedgerow, to hibernate.

<http://ypte.org.uk/factsheets/hedgehog/overview>

Barbastelle Bat (slide 67)

- There are 18 species of bat in the UK, all of which have been recorded in Sussex
- The barbastelle bat is one of the UK's rarest mammals
- A medium-sized bat with silky fur that is almost black
- The ears are very broad with the inner edges joined together across the forehead.

Invertebrates

The wealth of wildflowers on the South Downs provide pollen and nectar for many invertebrates, including some rare species.

Butterflies and Moths

60% of the UK's butterfly species can be found on the chalk grasslands of the South Downs National Park. Many of the species of butterfly found on the South Downs are relatively common, but others like the *Duke of Burgundy*, *Adonis* and *Chalkhill Blues* depend on the chalk downland that runs the length of Sussex. These species are particularly vulnerable to both changing farming practices and climate.

Adonis Blue (slide 68)

- A species of chalk downland, where it may be found in warm, sheltered spots
- Only feeds on horseshoe vetch, which is only found on chalk grassland.

Chalk Hill Blue (slide 69)

- Often seen in bright sunshine, where the ground may appear to shimmer with the activity of hundreds of males searching for a mate
- Like its close relative, the Adonis blue, the distribution of this species follows the distribution of horseshoe vetch.

Duke of Burgundy (slide 70)

- A rare butterfly that lives in small colonies and has undergone a major decline in Britain.

Forester Moth (slide 71)

- A beautiful day-flying moth with iridescent yellow/green wing scales.

Crickets

Listen for the song of these crickets when walking on the South Downs:

Warbiter Cricket (slide 72)

- A large bush-cricket
- Environmental changes due to unsuitable grazing systems and destruction of grassland habitats have caused a significant decline and they are now very rare
- Although they have wings, they normally move about by walking. They rarely fly as they are too heavy and their wings are not large enough
- 'Sing' by rubbing their wings together. Their fairly loud song consists of a series of rapidly repeated clicks in short bursts.

Long-Winged Conehead (slide 73)

- A small Bush-cricket, named for the angled shape of its head
- Their 'song' is a soft, hissing 'buzz', barely audible to human ears
- Once rare but now rapidly spreading northwards as a result of climate change and rising temperatures.

Birds

The South Downs is a breeding and feeding habitat for many birds including scarce species such as the stone curlew and threatened birds like the skylark.

Kittiwake (slide 74)

- Medium-sized gulls with a small yellow bill and a dark eye. They have a grey back with white underneath
- Easily identifiable at its nesting colonies on many Sussex cliff faces, when you can hear its 'kittiwake' call - a shrill 'kittee-wa-aaake, kitte-wa-aaake'.

Skylark (slide 75)

- Can be spotted rising almost vertically from the ground and effortlessly hovering and singing from a great height before parachuting back down to earth
- Have declined by more than 50% over the last quarter of a century, as a result of increased **intensive** farming methods

Stone Curlew (slide 76)

- A rare summer visitor to England, breeding on downland, heathland and arable farmland
- The UK population is estimated at approximately 350 pairs
- In the early part of the 20th Century, an estimated population of 60 pairs bred on the South Downs. This population slowly fell but in recent years they have started to make a comeback
- In 2006, a pair was discovered breeding on the Downs, and since then 12 more nesting attempts have been made.

Stone Chat (slide 77)

- A robin-sized bird with a sharp loud call that sounds like two stones being struck together
- They stay in the UK throughout the winter so often keep to the southern coastal areas where it is warmer

Barn Owl (slide 78)

- Distinctive heart-shaped face
- Nocturnal and feed on small mammals such as shrews and mice
- Exceptional hearing and can find prey by sound alone

<http://ypte.org.uk/factsheets/owl-barn/overview>

6. HUMAN IMPACT ON THE SOUTH DOWNS

Decline of UK Chalk Grassland

Chalk grassland is one of the most endangered habitats in Britain. The decline started after the second world war and since then the country has lost around 80% of its chalk grasslands. This decline is the result of a number of factors:

- Changes in farming practices - farming has become more **intensive** which involves use of fertilisers, liming, reseeding, ploughing (**slide 80**)
- Land being developed for uses such as housing.
- Lack of grazing stock - this leads to dominance of coarse grasses and scrub and a decline in **biodiversity**
- Recreation - this has a number of negative impacts such as disturbing wildlife, compacting the soil and trampling.

It is vital that we look after the chalk grassland that we have left. The South Downs National Park are working with a range of local partners to protect the chalk grasslands of the South Downs and reverse the process of decline. Together they have restored nearly 1,000 hectares of chalk grassland in the National Park and are already seeing the benefits, such as a significant increase in the sightings of rare butterflies.

Tourism and Recreation

The South Downs are an extremely popular recreational destination, especially for walkers, horse riders and mountain bikers. Tourism can have both positive and negative impacts on the landscape, local communities and economy. Visitors can help reduce negative environmental impacts by following a few simple guidelines:

- **Litter** - never drop it as it can be a danger to wildlife
- **Erosion** - the chalk cliffs and grasslands are particularly vulnerable to **erosion**, so try to pick lesser-known areas to help reduce pressure on the most popular sites. If there's a designated path it's important to stick to it (**slide 81**)
- **Disturbance to wildlife** - don't allow dogs to disturb wildlife and keep them on a lead when near livestock. Be aware that there are ground- nesting birds in heathland areas
- **Traffic pollution** - try to avoid using your car where possible and consider the train, bikes or walking.

Climate Change

The South Downs National Park believes that climate change is going to be one of the main causes of environmental change for the National Park in the future. It predicts that it will have significant impacts on the landscape of the South Downs and it has an Adaptation Plan explaining how they will face these challenges.

Slide 82: By burning fossil fuels and cutting down trees (which releases carbon dioxide), humans are contributing to a change in the Earth's atmosphere that is causing it to heat up - this is called **global warming**. As our planet warms, global sea temperatures are rising. Rising sea temperatures are bringing major changes to the marine food chain. Warmer seas are resulting in less availability of certain food sources. Sea birds like the kittiwake are the top predators in the food chain and are strongly affected by these changes; if they are not able to adapt they could struggle to survive. The kittiwake colony at Splash Point near Seaford Head in East Sussex faces an uncertain future due to the effects of climate change.

<http://ypte.org.uk/factsheets/global-warming/introduction>

<http://ypte.org.uk/videos/the-greenhouse-effect>

7. SUGGESTED ACTIVITIES

(linked to Science National Curriculum requirements)

Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other (*Year 2, Living things and their habitats*).

Choose a plant or animal that lives on the South Downs. Produce a fact file on your species and try to include photographs and sketches where possible. Your factfile should address the following questions:

- What does your species look like?
- What habitat(s) is it found in?
- What does it need for its survival?
- How is it suited/adapted to the habitat it lives in? Think about the climate, food sources etc.
- Are there any plants or animals that depend on your species for their survival?
- Are there any threats to its survival (natural and/or human)?

Identify and name a variety of plants and animals in their habitats (*Year 2, Living things and their habitats*).

If possible, visit an area of the Sussex South Downs to observe the animal and plant life at first hand in its natural habitat. Possible areas to visit include chalk grassland at Lewes Downs or Castle Hill Nature Reserves, chalk heath at Lullington Heath Nature Reserve, woodland at Kingley Vale Nature Reserve or visit the Seven Sisters Country Park. Try to identify as many different plants and animals as possible and take photographs of any that you cannot identify, so you can find out what they are back at school. Produce a guide on 'The Plant and Animal Life of.....', so that visitors to the area can learn all about the local wildlife.

Recognise that environments can change and that this can sometimes pose dangers to living things: Pupils should explore examples of human impact (both positive and negative) on environments (*Year 4, Living things and their habitats*).

Find out more about how human actions are having a positive impact on the environment of the South Downs e.g. nature reserves and National Park status of the South Downs.

Research the ways in which humans are damaging the environment of the South Downs e.g. changes to farming practices, tourism, recreation, erosion, pollution, litter and damage to habitats. What do you think can be done to reduce the damage?

