The Friston Forest Experience
Teacher’s Pack
Suggestions for following up a visit to Friston Forest

• Using the map, find out how much the group remembers about the visit and what they saw. Plot on the map where different habitats were found, what species of trees they remember growing in different places, where different animals lived etc.

• Using the ‘Woodland Ecosystem’ worksheet list the plants and animals found in the different layers of the woodland.

• Create a food web for the woodland.

• Make up an animal menu.

• Create a tree collage with the parts of the tree and their function labelled.

• Go on a bug hunt in the school grounds and compare the results with the bug hunt in the woodland.

• Create your own mini-beast area by building a log pile to attract invertebrates.

• Write a recount of the visit.

• Creative writing (poem or story) based around the idea of exploring an area for the first time.
Friston Forest Facts

How big is Friston Forest?

The forest covers an area of 795 hectares.

Who looks after the forest?

It is managed by the Forestry Commission who lease it from East Sussex County Council. The forest is managed by Forest Enterprise.

What lives and grows in the forest?

Friston Forest is largely a beech wood although there are many other species growing within it, including ash, sycamore, Douglas Fir, Western red cedar, oak, Norway spruce and Corsican and Scots pine. 350 species of plant have been recorded throughout the wood, with both woodland and downland species. It is home to badgers, foxes, squirrels, and rabbits. There are also less common mammals including stoats, weasels, hares, shrews and moles. There is also evidence of deer in the woods. Adders can often be seen sunning themselves in open spaces and there is the occasional sightings of a grass snake. The forest is an important stopping place for migratory birds and unusual species such as osprey and hoopoes can be seen at certain times of the year.

What is the history of the forest?

For thousands of years the downs were covered with woodland. As settlements developed areas were cleared for agriculture. The Romans grew wheat on the downs and during the Anglo-Saxon period downland pasture supported large flocks of sheep. The name Friston first appeared 800 years ago and is probably derived from the old English words ‘fyrs tun’ which means ‘land overgrown with furze of gorse.’ Gorse can be seen growing in large clumps over the downs today. There are a number of dew ponds in the forest which were created as an early supply of water for sheep and cattle. Bronze Age burrows and tracks can still be seen and West Dean church dates from Norman times. An adit 4.5 kilometres long was dug underground at the turn of the twentieth century by Welsh miners and spoil from this can be seen in certain places in the forest. Water from this adit is extracted by a pumping station at Friston which was built in 1930.

Why was Friston Forest planted?

Water had been abstracted from this area for a long time and piped to Eastbourne and the surrounding area. With the use of fertilisers and chemicals in agriculture, grew concern that run off
from West Dean and Friston farms would affect the quality of the water pumped from the chalk. As a result of this the land was taken out of cultivation and leased to the Forestry Commission who started planting the forest in 1926.

**How was the forest planted?**

It was decided to plant a beech forest but problems arose. Planting was difficult and specially made heavy reinforced forks had to be used to break up the underlying chalk. The area is exposed to south-westerly winds, so ‘nurse’ pine trees were planted to protect the young beech saplings from the salt laden sea breezes. The shallow soil is deficient in many nutrients and did not provide an ideal growing medium.

The woodland developed slowly only to face setbacks during the Second World War when areas were used for agriculture and training grounds before the invasion of Europe.

The forest suffered damage during the hurricane of 1987.

**How is the woodland being used?**

As the woodland matures, the coniferous ‘nurse’ trees are being removed, leaving a largely broadleaved woodland. Friston Forest is a working forest, producing timber for commercial use and thinning, felling and extraction take place throughout the year.

Part of the forest has been developed for recreation and education. Provision has been made for both walkers and cyclists.

Measures have also been taken to conserve wildlife habitats.

Groups such as the ‘Friends of Friston Forest’ have been set up and play an important role in providing the opportunity for users to contribute to the care and upkeep of the forest as well as ensuring good communications between the Forest Enterprise and the general public.
Map of Friston Forest
My Woodland Menu

I am a ----------------------------------

To start my meal I would like

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Then I would like

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For dessert I would like

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I would drink

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HOW A TREE WORKS

RAIN
Water is used to dissolve and transport minerals from the soil into the plant.

FLOWERS
The reproductive part of the plant, often designed to entice insects using colour or scent.

AIR
Carbon, hydrogen and oxygen are taken directly into the leaves and an excess of oxygen, a by-product of photosynthesis, is released.

LEAVES
Green chloroplasts in the leaf, using the energy of sunlight, carbon dioxide and water, manufacture carbohydrate plant food.

SOLAR ENERGY
Sunlight is the fuel of photosynthesis.

HEARTWOOD
Gives strength to the stem and is used by the tree for storage of waste products.

LEAF FALL
Reduces wind resistance and transpiration in the winter. Leaves decay on the ground and return the minerals they contained to the soil.

STEM, OR TRUNK
Supports branches and transports plant food down to the roots and minerals up to the crown.

TAP ROOT
Holds the plant firmly in the ground and exploits deeper water supplies.

MINERAL SALTS
Potassium, phosphorus, iron, calcium, magnesium and trace elements are taken from the soil.

FEEDING ROOTS
These search for and gather moisture and nutrients from the soil.
How A Tree Works

**BACKGROUND INFORMATION**

**SUNSHINE**

**ENERGY**

**WATER**

**RAINFALL**

**LEAVES**

Trees breathe in carbon dioxide and breathe out oxygen through the leaves. Internally veins in the leaf join up with veins in the young stem which connect with the wood in the branches and trunk.

**FLOWERS**

Like other plants, trees have flowers or cones which need to be pollinated and produce seeds.

**TWIGS**

Twigs have the scars of last year's leaves and a ring of bud scales where last year's bud started to grow. In the spring the bud grows again as its bud scales fall away. The pattern of the tree is determined by the way in which buds develop.

**FRUITS**

Fruits are produced from the flowers and dispersed by wind or animals.

**THE TRUNK**

The cambium forms new wood and food-conducting inner bark. Outside this another cambium produces cork cells which form the protective outer bark. The cracks and peels as the tension from the expanding wood increases.

**ROOTS AND SEEDLINGS**

Seedlings come out of fruits and germinate, forming the first twig which is potentially a tree.