Forestry England

Lesson plan
Minibeasts

Forestry England looks after more than 1500 woods and forests. Forests provide many learning opportunities, and are fantastic places to observe habitats, minibeasts and other animals. Take your class to your local woodland for a great day out, that will also meet the needs of your science curriculum.

Curriculum links:

EYFS: Understanding the world
KS1 and KS2: Animals including humans; All living things; Habitats; Movement

Before your visit

Ask the children to draw a picture of what they think the forest will look like, and to list or draw any minibeasts they expect to find. Discuss where and how you are going to collect minibeasts, and how you could identify them.

To help your class prepare for their forest visit, take a look at our education resource hub and use the pre-visit filter to find some fantastic resources. These include thinking about what to expect from the forest and what your class will need to do to keep themselves safe whilst looking after the forest.

For health and safety advice and some top tips for teaching outdoors, visit **forestryengland.uk/planning-your-visit**

Teacher preparation: decide where you are going to look for minibeasts and how you are going to record what you find (e.g. class recording sheet or lists in pairs or small groups); do you want the children to observe minibeasts closely and draw them while out in the forest, or just tick which ones they find on a list?

Minibeasts you are likely to find in the forest:

- Spider
- Worm
- Slug
- Snail
- Ant
- Centipede
- Millipede
- Caterpillar
- Butterfly
- Woodlouse
- Beetle
- Ladybird
- Grasshopper
- Earwig
- Harvestman
- Fly

You will need to bring:

- collecting pots (yogurt pots are fine)
- spoons and / or brushes
- paper and pencils for recording what you find – you may wish to make a tick list of minibeasts (see box for suggestions)
- minibeast (invertebrate)identification books / keys appropriate to age of learners
- bags for collecting forest materials to take back to school
- 2 sets of woolly worms (30 pieces of wool 5cm long; of 5 or 6 different colours – some which will be camouflaged in the forest environment e.g. brown, green, grey and some which will be easy to spot e.g. red, yellow, blue)

For more learning resources visit **forestryengland.uk/learning**

Starter activity

Find an area in the forest to stand or sit in a circle. Look at (and discuss) the pictures you drew before the visit.

- **Is the forest as you expected it to be?**
- **What is different?**

Hungry Bird and Woolly Worms

An activity to demonstrate the importance of camouflage (i.e. protection against predators)

Divide the class into two groups and assign each group to a small area of forest. Ask each group to place 30 woolly worms around their area, trying to put them in places where they will be hidden e.g. a green worm on a green leaf. We suggest that you remind the children not to place their worms in inaccessible places e.g. in the middle of bramble or nettle patches.

Once all the worms have been placed, ask the groups to swap areas and then pretend to be hungry birds, looking for worms to eat. Give them a minute to find as many worms as they can. Ask them to bring the worms to the teacher, who keeps them in the order they were found.

When you call the children back together, discuss how many of each colour have been found and which were the first ones to be found (the red and blue ones should have been found more easily than the green and brown ones).

Discuss which were easier to find and why. Talk about how and why some animals are camouflaged, and why some animals seem to be deliberately brightly coloured, and therefore not camouflaged (maybe they have a different defence mechanism e.g. poison or a sting). Give the children a few minutes to find the rest of the worms.

Forest habitats

Take a few minutes to explore and look around the area. Ask the children to identify microhabitats – places for minibeasts to live within the forest e.g. open grassy area, fallen log, tree trunk, puddle.

Explain that Forestry England looks after hundreds of forests, and takes care to ensure that they provide lots of habitats for minibeasts and other wildlife. When areas of trees are felled (cut down), dead wood is often left, providing homes and food for beetles and other invertebrates. When new trees are planted, some open spaces are left to provide warm sunny areas for butterflies.

Collecting minibeasts

Give the children the opportunity to suggest which microhabitats should be investigated for minibeasts.

Hint: We recommend that you have decided where you are going to look before you arrive, and we suggest looking at two or three contrasting areas e.g. open space with long grass, under conifers (probably dark and cool with little ground vegetation) or under broadleaves (probably light, with ground plants and leaf litter).

Explain how to collect minibeasts and how you want the children to record what they have found (see 'before your visit' above).

After some time, call the group back together to discuss what has been found so far. If groups are searching in different areas, are there any noticeable differences between the minibeasts found in each area? What are the most common minibeasts?

How to collect minibeasts

Look carefully for your minibeast, e.g. by moving logs or by using a stick to search through leaf litter. (Don't forget to put the logs back!)

When you see a minibeast, hold the collecting pot next to it and gently scoop it into the pot with a spoon or brush.

Another method is to place a large white sheet under a tree and shake the branches to see what falls out.

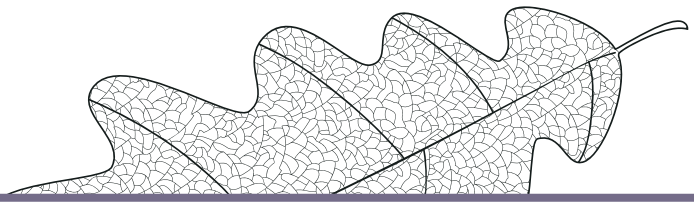
At the end of the session, don't forget to put the minibeasts back into a suitable habitat.

Make a minibeast

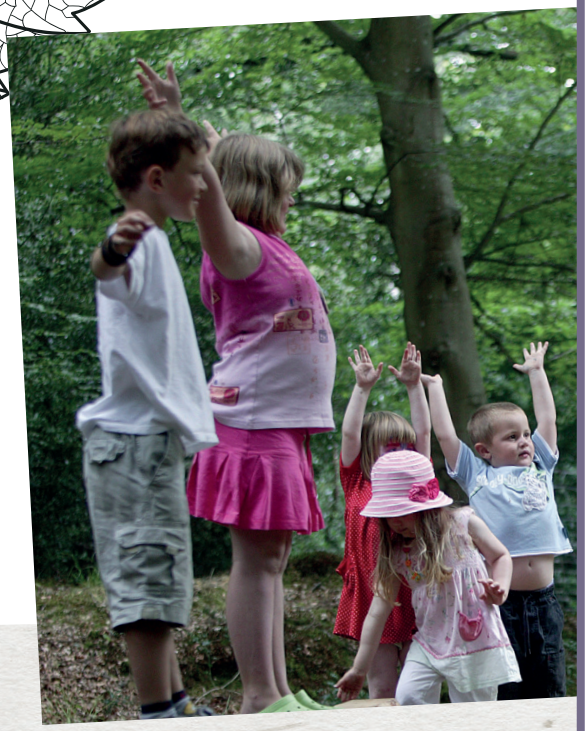
Divide the children into small groups and ask them to think of a minibeast they have found during the visit. Ask them to create a ground picture of it using natural materials. Draw attention to the body parts of the minibeast and the number of legs it should have.

Can they find forest materials of the correct colours to make their picture?

Finish the activity with a gallery where the children look at each other's ground pictures and try to identify them.



Be a minibeast



Divide the class into small groups and ask each group to make themselves into a minibeast (e.g. one child in the centre being a spider's body and eight others being its legs).

Can they make the same minibeast with fewer children?

Can other groups guess which minibeasts are being made?

Wildlife conservation

Discuss reasons why people visit forests e.g. dog walking, playing, picnics and bike riding. Explain that many people also visit forests to look for wildlife e.g. bird and deer watching. Some people even volunteer to help Forestry England with conservation projects, for example creation of habitats for wildlife, and counting and recording butterfly species.

In this activity, you can help to provide a habitat for wildlife. There are two ways to do this:

Either, find an area with fallen forest materials on the floor, and work in teams to create small habitat piles – stacks of sticks and leaves, in which invertebrates and small mammals can shelter and hibernate.

Or, collect small sticks to take back to school. These can be tied together in bundles and hung in the school grounds to provide 'hotels' for minibeasts.

Back at school

Investigate what minibeasts eat and what eats them. Draw food chains that include the minibeasts you found in the forest. Discuss the terms omnivore, herbivore, carnivore, predator, prey. What would happen to animals higher up the food chain if there were no habitats for minibeasts in the forest?

Read poems, nursery rhymes or stories about minibeasts, then do your own piece of creative writing to describe the minibeasts found in the forest.

Example forest food chains:

Oak leaf
↓
Caterpillar
↓
Blue tit
↓
Sparrowhawk

Leaf litter
↓
Worm
↓
Hedgehog

Hazelnut
↓
Dormouse

Discuss:

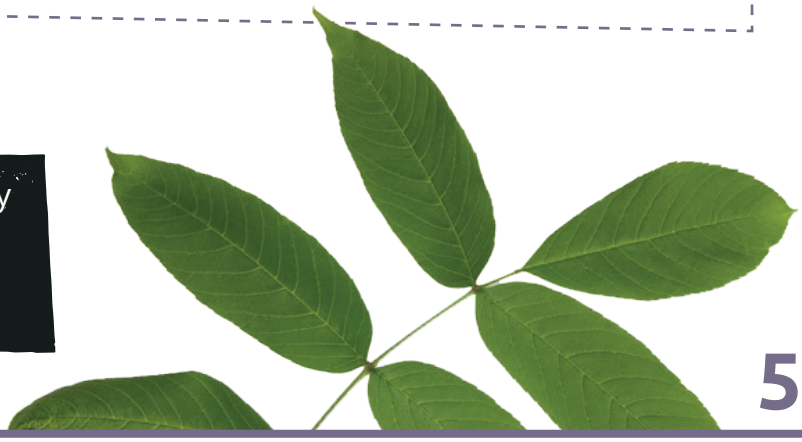
Did you see any people in the forest?

What were they doing?

Make a poster to show what sort of activities people can do in the forest, e.g. cycling, walking, playing, having a picnic.

Did you see any areas of the forest that had been felled, where trees had been cut down to provide timber (wood)?

How many things can you think of that are made of wood?

Forestry England manages the forest very carefully, so that new trees are planted to replace those that have been felled for timber. Timber is used to make all sorts of things including fences, bird boxes, furniture, pencils and toilet roll.

For more information about Forestry England's sustainable management of the nation's forests, please visit **forestryengland.uk**