National Education Nature Park and Climate Action Awards

Mapping tree habitats

Mapping tree habitats is part of the *Mapping your site* activities, enabling you to explore and map the habitats your site currently offers for nature. Understanding your starting point is really important and will allow you to measure any nature gains you achieve when you start making enhancements to your site. Mapping tree habitats is one of eight habitat mapping sessions in this unit of learning.

Meet a tree and the tree survey

Before mapping any tree habitats, these introductory activities have been designed to support learners in identifying the key features of trees, allowing them to answer the questions in the *trees flowchart* accurately. The learners' flowchart answers are then added to your Nature Park map by an educator, using the Habitat Mapper app.

The tree survey supports learners to identify what type of woodland they have on your site using the *Trees flowchart.* In the Habitat Mapper online tool, groups of five or more trees should be drawn as an area of 'woodland'. The type of woodland – broadleaf, evergreen or mixed, is determined by the proportions of the type of tree.

Meet a tree and the tree survey can also be used as standalone activities, promoting a positive connection with nature.

Teaching time

60 Minutes

Learning outcomes

To know how to identify fruit and nut trees.
To know how to identify the life stage of a tree.
To identify the difference between evergreen and broadleaf trees.
To record and interpret data about the number of evergreen and broad-leaf trees within a sample of 10 trees.
To use their data to classify their woodland.
To understand their role and contribution to mapping the habitats on their site as part of the Education Nature Park.

Step by step

1. Ask learners to work in small groups (three works well) to choose a tree.
2. Once chosen, give learners no more than two minutes to either observe and sketch the tree, the leaves or make a bark rubbing on their worksheet. Remind them that it doesn't need to be perfect!
3. Use the worksheet to guide the learners in estimating the life stage of the tree. Look at the height of the tree, the thickness of the trunk and the texture of the bark.
4. Ask learners to draw the shape of the leaves and discuss whether the tree is evergreen or broadleaved using the worksheet.
5. Consider what fruits, nuts, or seeds the tree produces. Discuss whether humans or other animals can eat these. Do not eat any fruits or nuts unless you can positively identify them as edible, and be mindful of possible nut allergies.

Green Skills

Suitable for

Key Stage 2
Key Stage 3

Location

Outdoors

Season

Spring
Summer
Autum
Winter

What you'll need

A printed map of your site

A tablet, laptop or desktop PC to access the Habitat Mapper tool online

Meet a tree and *tree survey* activity sheets

Clipboards

Drawing materials

Measuring tape or sticks

Optional: examples of broadleaf e.g., oak, ash or beech, and evergreen e.g., conifer tree leaves

Key vocabulary

Evergreen
Broadleaf

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Step by step (continued)

6. Encourage the learners to look at how the tree fits into its surroundings. Observe whether it stands alone or with other trees. If there are five or more trees in a group, complete the *tree survey*.

7. If there are fewer than 10 trees, investigate all the trees in that area. If there are more, ask the learners to choose ten trees at random. A random sample is important to create a fair representation of tree types within the woodland area.

8. Using the tree survey activity sheet, tally the number of broadleaved and evergreen trees and use the guide to identify what kind of woodland it is.

9. After completing the observations, sketches and tree survey (if needed), use the *Trees flowchart* to decide which tree habitat you have.

10. Educators can work with learners to draw each area of tree habitat on to the printed map, or (if you have internet connectivity outdoors) directly on to the online map using the Habitat Mapper tool.

11. Repeat this for each separate area of trees growing on your site, until you have mapped them all.

12. Back indoors as a whole class activity, transfer the habitat areas from your paper map onto the online Nature Park map using the Habitat Mapper tool. If you already did this outdoors, check and review your map with the class.

Reflection

Trees are incredible living things that are a vital part of our environment. They provide shelter and habitats for other organisms, provide cooling shade, filter water, stop erosion, convert solar energy into stored carbon, provide energy when burned and are an important building material. Ask learners to reflect on their own relationship with trees when they interact with them or use them.

The type of tree influences how much light reaches the ground, how deep the leaf litter layer is and the acidity of the soil, all of which determines what organisms live in the habitat. Challenge learners to make a list of living things that might rely on trees. Did they see any while surveying?

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