

OUR CHANGING WORLD



LESSON 2: HOW DOES A HABITAT CHANGE THROUGH THE YEAR?

Key vocabulary:

habitat, tally chart, pattern

Resources:

Teaspoons, pots, magnifying glasses, pond dipping equipment (nets, trays), rulers

Health and safety:

Ensure children wash their hands after handling plants and animals. Do not allow unrestricted access to ponds or allow young children to work unaccompanied. Avoid pond dipping where access is steep or otherwise difficult. Avoid open (unfenced) water, which could be deep and dangerous.

Key information:

Where an organism lives is called its habitat. The size of a habitat varies enormously from a tropical rainforest to a single leaf of an oak tree. If the habitat is small (such as the leaf of the oak tree, the space under a stone, a log pile or a crack in a wall), then it is sometimes referred to as a microhabitat. The boundaries as to what makes something a microhabitat are not clear-cut, so in this module the term 'habitat' is used throughout regardless of size, but, where necessary, specific examples of the habitat being referred to are given.

LESSON SUMMARY:

In this series of lessons children carry out surveys to see what animals are visible at different times of the year in the habitats studied in Lesson 1. By the end of the lessons they have discovered that there are different numbers of each species at different times of the year and that they may be in different stages of their life cycles. These lessons should take place at least once a term, with possibly more visits in the spring and summer terms.

National curriculum links:

To 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

Learning intention:

To record changes in the number and types of animals found in a habitat during the year

Scientific enquiry type:

Noticing patterns

Working scientifically links:

Gathering and recording data to help in answering questions

Success criteria:

- I can construct a tally chart to record my observations.
- I can record my observations in a tally chart.
- I can look for patterns in my results.

EXPLORE:

Remind children of the habitat that they are going to be visiting by showing them photographs and drawings from Lesson 1. Ask them to think about the different animals that they found and identified.

Ask them to talk to their partner about how the habitats may have changed since their last visit.

Ask: *Will the plants have changed? Do you think we will see the same animals? Do you think we will see more or fewer animals than on our last visit? Do you think the animals will have changed? Why do you think this?*

ENQUIRE:

Explain to children that they will be going out to look at the habitats again. This time, instead of simply observing and identifying the animals present, you would like them to find out how many of each species they can find. Ask children to think about whether this will be easy or not. If you are looking under a log it will be tricky as the animals will move to hide. They may wish to each look for different animals and start with the ones that tend to move more quickly. Which ones move quickly and should be counted first, and which move more slowly and can be counted later? If pond dipping, the animals are contained in the tray but they will still move around and there may be too many to count of some species.

All children should complete Challenge 1 or 2, depending on how much support they require to construct a tally chart. If there is time children can complete the extension activity in Challenge 3 in which they measure the size of the animals to observe if this changes through the year. Establish that children know how to complete a tally chart with tally marks in groups of five.

Challenge 1: Children record animals on a tally chart

Provide these children with What have we found today? (Resource sheet 1), which is a blank template for a tally chart. Ask them to fill in the animals that they think they will find.

Ask: *What animals do you think you will find? Where do you need to record these in your tally chart?*

Challenge 2: Children decide how to record animals in a manner of their choice

Before going out ask these children to decide for themselves how they are going to record what they find. Remind them that a tally chart is a clear way of recording this type of information easily.

Ask: *What headings will you need on your tally chart? What animals do you think we will find? Can you record these in your tally chart before we go out?*

Challenge 3: Children measure and record the lengths of species

If the children have time they can measure the length of each species found using a ruler. Give them copies of Animal measurements (Resource sheet 2) to record this information.

Ask: *How do the animals change in size throughout the year?*

REFLECT AND REVIEW:

Ask children to look at their tally chart from today's lesson.

Ask: *What patterns do you notice? How has the number of different types of animals changed? Is there the same number of each type of animal? Have the numbers of larger or smaller animals changed most?*

After you have completed a series of visits to study the habitat, ask children to combine the information from the different tally charts into one table. You could provide What have we found in the year? (Resource sheet 3) to support them with this. You may wish for some children to present this information in a bar chart to make it easier to look for patterns. Again ask children to look for patterns in their results.

Ask: *Does the number of animals found change through the year? Why do you think this is? Is the same animal always in the greatest/least number? Do the animals change in size through the year?*

Ask children to think about why the animals choose to live in this habitat.

EVIDENCE OF LEARNING:

Are children able to construct a tally chart themselves to record their observations? As children make their observations, watch to see how they complete the tally chart. Do they use tally marks appropriately? Are they able to use these to work out the total? Are children able to notice patterns in the results? Do any children try to give reasons to explain the patterns that they see?

CROSS-CURRICULAR OPPORTUNITIES:

There are links with PSHE in the care of animals. Ensure children treat the animals that they collect with care. Ensure that they put them back where they found them and do not keep them in the pot longer than they need to. There are also links to Mathematics in the use of tally charts and possibly presenting data in bar charts.

