

Exemplar 15

Classifying and identifying living things

During habitat surveys and work in the outdoor environment, teachers and children will find animals and plants that they may never have observed before or that they are unable to identify. A large variety of living things can be found even in the most common habitats, and it is not expected that children will be able to name all the organisms they find. Rather, they can be guided to identify common plants and animals through the use of identification charts, books and keys.

The identification and classification of living things are closely related activities. Identifying organisms depends on picking out their distinguishing characteristics, while classifying living things depends on recognising their common features.

Living things can be grouped or classified in many different ways, according to their characteristics. These may include:

- observable features such as colour, shape, size, and parts of the body

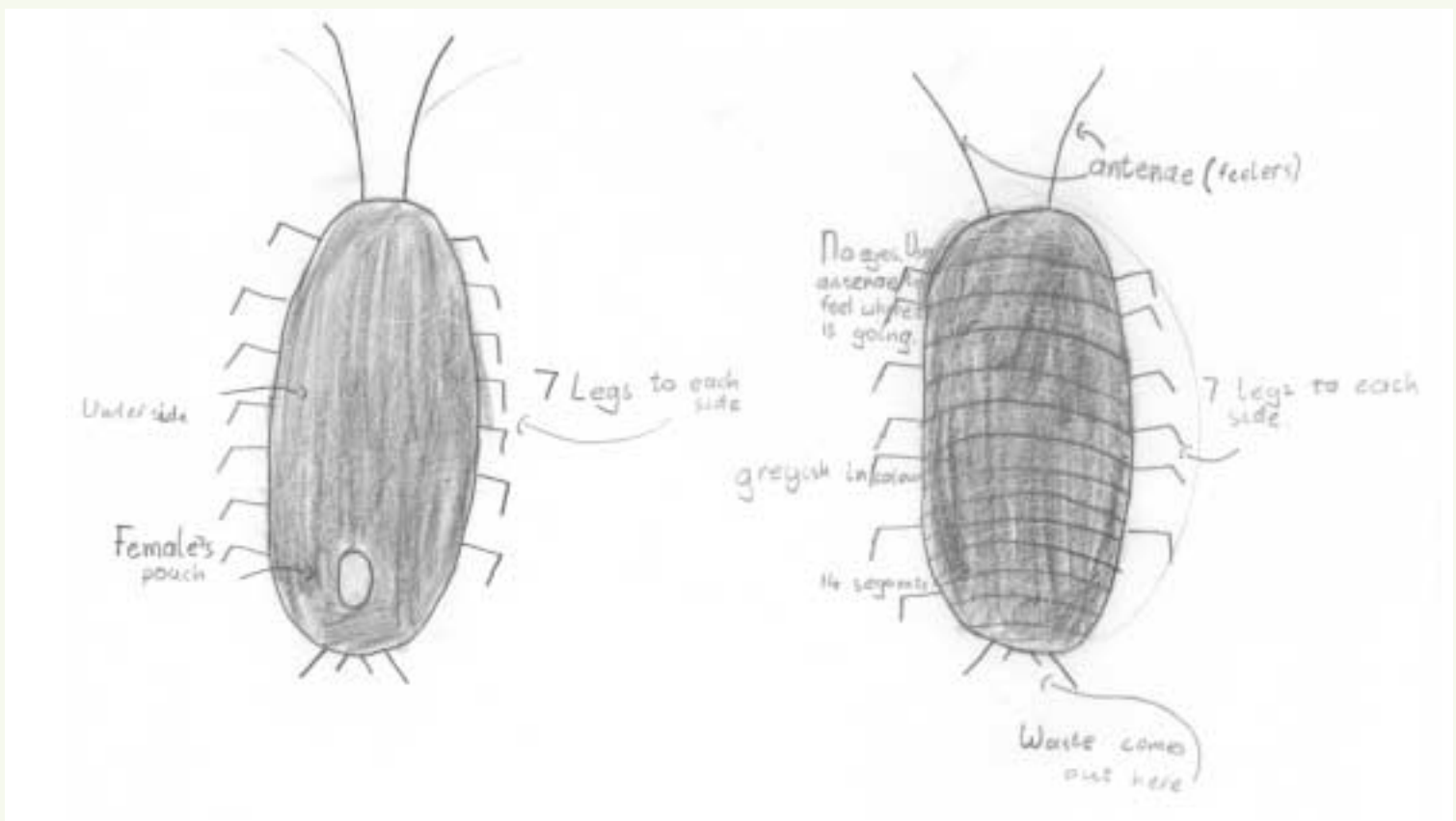
- where the organism lives
- how it behaves
- methods of feeding
- how the organism reproduces.

Starting from the children's ideas

Ask the children to consider the different kinds of animals they can think of. They should write down what they think in a list, draw pictures or communicate their ideas in a one-to-one discussion with the teacher or as part of a larger group. They can consider questions such as:

- Why do you think it is an animal?
- What helps you to decide that this is a plant?

Similar techniques can be used for plants and animals.



The encouragement of careful observation of the animal or plant and its special features will assist with its identification and classification.

Making accurate observations

The important prerequisite for using identification keys, books and charts is for the child to be able to describe accurately the animal or plant observed. *Exemplar 13* details the types of questions that will help children to focus on the shape, colour, body parts and behaviour of animals. Once the organism has been described, the teacher should develop the observational task by asking the children to compare two or more animals or plants. When children are comparing organisms they should be encouraged to

- describe features such as colour, shape, size and structure
- identify common features
- identify differences.

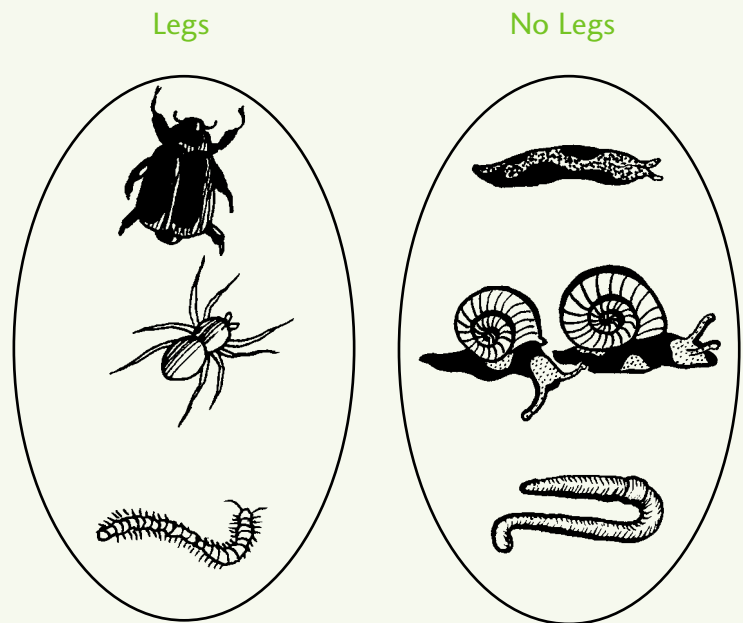
Making sets

Children in infant and junior classes can sort plants and animals into groups using cards with pictures of animals and plants on them. The different categories into which they will sort the animals or plants can be agreed beforehand: for example, they may sort them into groups of animals with two legs and animals with four legs. Teachers will find that hoops are useful for this type of activity, as the children can place the picture cards into the appropriate hoops as they group and regroup.

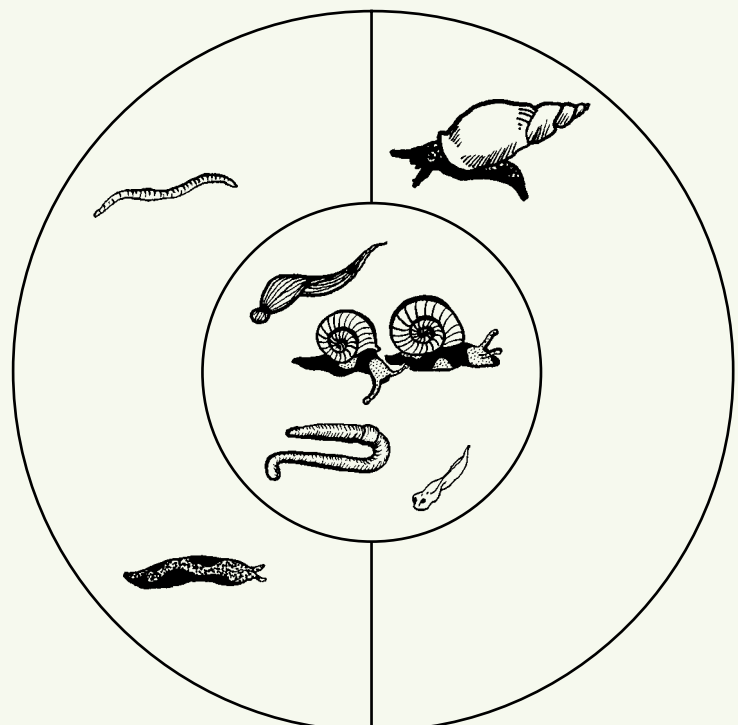
Children in middle and senior classes can sort animals or plants into sets using their own criteria. At first they may group according to colour and size. As they become more familiar with the features of the animals they will think of different ways of grouping and regrouping animals:

- make a group of animals with wings
- make a group of animals with shells
- make a group of plants with yellow flowers
- make a group of animals with fur or hair.

Their results can be recorded pictorially or in diagrams.



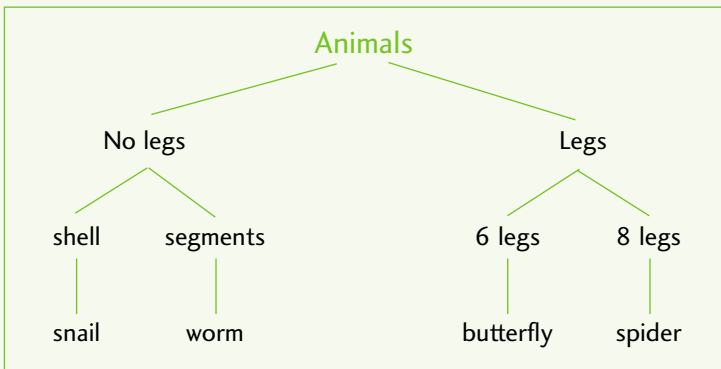
The children may then be encouraged to look at each of the sub-sets in turn and to choose a question that will help divide that into further sub-sets. The children can sort to make sub-sets in this way.



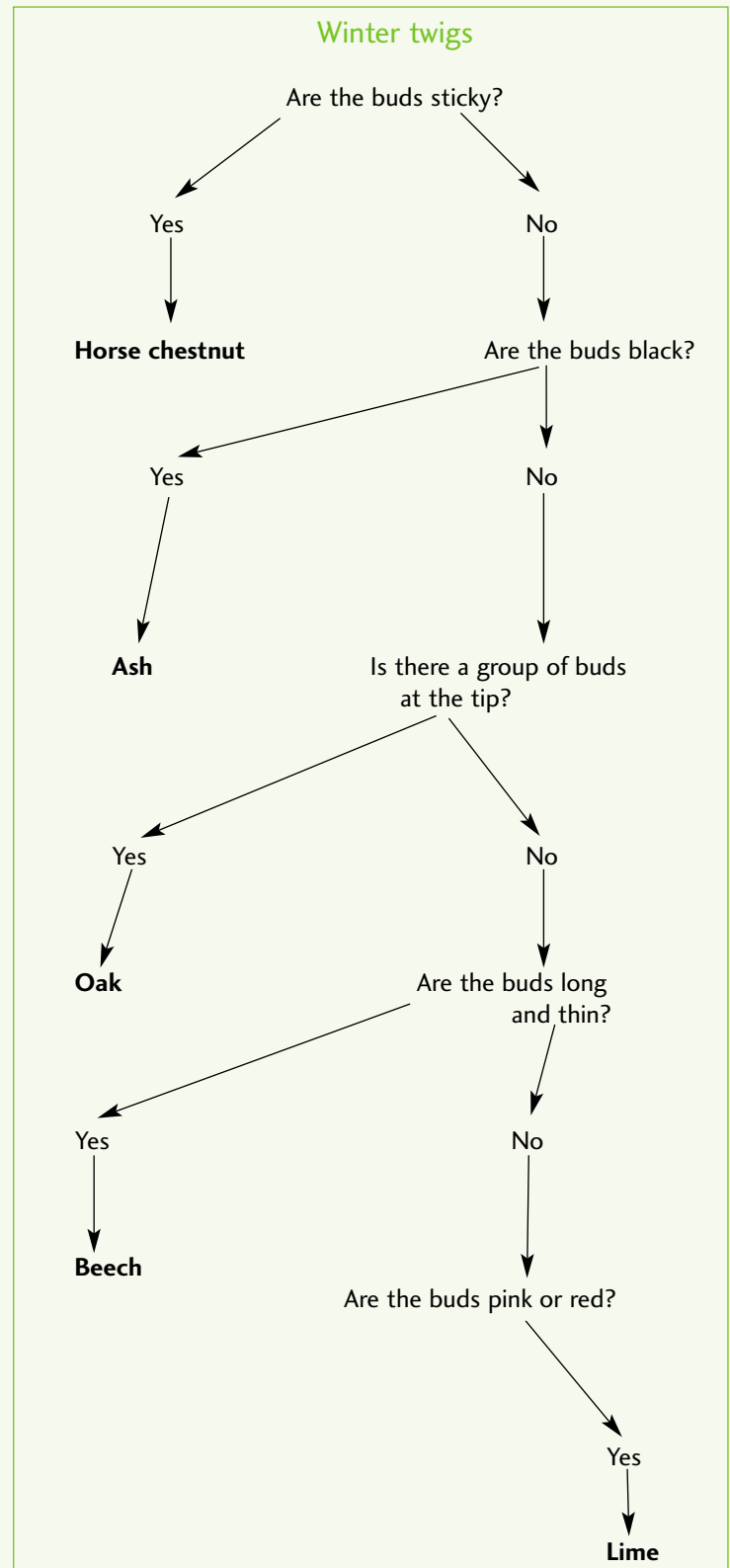
Using keys

Keys are useful in helping children identify animals or plants. There are commercially produced keys that help identification. Pocket guides are useful in identifying features of animals and plants. However, helping children to produce their own keys may often reveal their ideas and level of understanding.

Children use and develop keys by sorting the plants and/or animals in the whole set into two groups. They can then divide each of these into two further groups, and so on until they end up with only one plant or animal in each group. The results of these yes/no groups might be recorded like this:



The following example shows a key presented in a different way, by means of questions rather than group characteristics. The children who made this key examined a set of winter twigs found in and around the school garden. The twigs studied were from the oak, horse chestnut, ash, beech and lime trees.



A branching key for the identification of winter twigs