

Sorting Living Things

Sciences – Biodiversity & Interdependence

I can distinguish between living and non living things. I can sort living things into groups and explain my decisions. **SCN 1-01a**

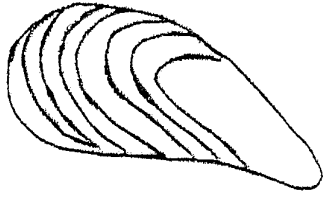
Background Information As a pre-visit task, the Pupil Activity Sheet provides the opportunity for children to classify common seashore objects into living and non-living groups. It also provides the possibility for extending the discussion into items which were once living.

Resources – Activity sheet
Coloured pencils

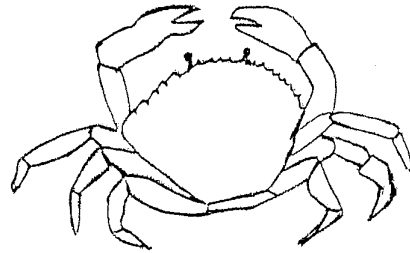
Activities (Key questions are identified in **bold type**).

- Provide the children with a collection of objects to observe. This should include some living things (e.g plants and mini beasts) and some non-living objects (e.g. plastic or metal items). Encourage the children to sort and describe the objects.
- Compare the living with the non-living.
How did you decide it was alive?
What made you certain it was not alive?
- Brainstorm ideas to produce a list of the common characteristics of living things. Simple language should be used to describe movement, respiration, feeding, excretion, sensitivity, growth and reproduction.
- Introduce some once living objects to the collection (e.g. bones or wooden items). Explore this more complex issue with the children.
- Introduce the Activity Sheet to the children and discuss the pictures shown.
- Explain to the children that they are to colour the living things green, the non-living things blue, and the once living things yellow.
- As a final activity take the children on a short walk in the area around the school. Ask them to work with a partner to find and record two living things, two once-living things and two non-living things. Encourage them to report back to the group on their findings.

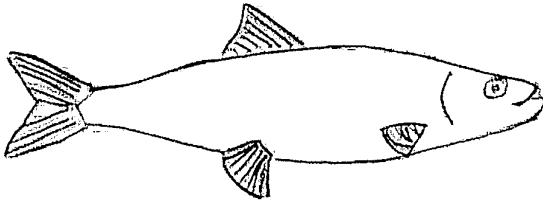
Sort and Colour



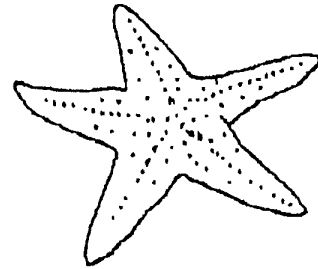
shell



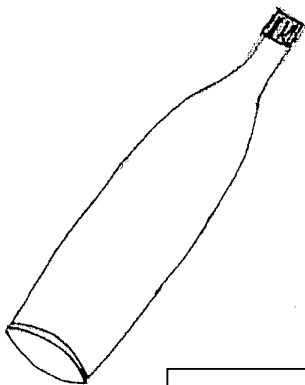
crab



fish



starfish



bottle



feather

I can sort living things and non living things into groups.



What's on the Beach Today?

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Background Information This activity could be undertaken on the beach as an extension of your visit. It will give children the practical opportunity to sort seashore items into non-living and once living groups. The children will also consider living plants, animals and birds found in this environment. Follow up work could focus on the importance of looking after our environment and the problems of rubbish.

Resources – 4 hoops
Paper
Pencils

Activities (Key questions are identified in **bold type**).

- In order to tune the children into this environment start with a one minute sensation session:
 - Ask children to stand very quietly, on the beach, with their eyes closed.
 - They are to listen carefully for one minute and then discuss the sounds heard.
- Next lay four hoops on the beach and ask the children to find specific items and place in each hoop:
 - Hoop 1- **Find and bring back four different types of shell.**
 - Hoop 2- **Find and bring back two different types of seaweed.**
 - Hoop 3- **Find and bring back one feather.**
- While the children are collecting the above items, find a selection of rubbish and place it in hoop 4.
- Gather the children and look at the contents of each hoop. Discuss how easy or difficult the items were to find. Use these questions to further discussion.
 - Why were these items on the beach?
 - Where did they come from?
 - Were they non-living or once living?
- Then ask the children to find and draw three living things. If the tide is low, the children could explore the rock pools.

ENSURE THAT HANDS ARE WASHED AFTER THIS ACTIVITY

Sorting Shells

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Background Information The beaches adjacent to the Seabird Centre provide an excellent location for children investigating the seashore habitat. During their visit children can collect a range of items from the beach which can be used to stimulate discussion and to form the basis of a classroom display. The wide variety of shells available on this stretch of coast would produce a particularly interesting collection. It is important that children wash their hands after such an activity. There are facilities in the Education Centre for this purpose.

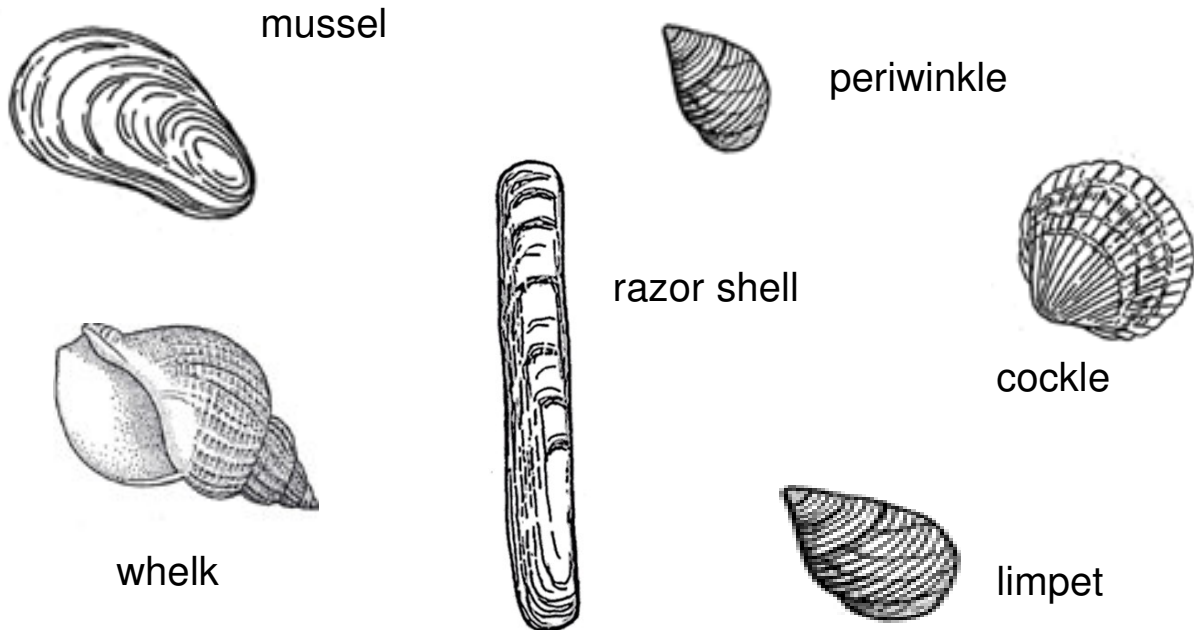
Resources – A variety of different kinds of shells collected by the children during their visit
Sorting trays
Magnifying glasses

Activities (Key questions are in **bold type**)

- Divide the children into small groups. Give each group a collection of shells, a magnifying glass and some sorting trays.
- Challenge the children to find as many different ways to sort the shells as they can.
- They will probably sort by size, shape, pattern and colour. As the children work, encourage them to look for other ways of sorting e.g. bivalves and univalves. Explain that some creatures like mussels have two shells. (They are bivalves.)
 - **How are the shells joined? Can you spot a hinge? Are both shells the same?**
 - Some creatures have a single shell. (They are univalves). **What shape does the shell make?** (Spiral). Compare two different shells. **Does the spiral always twist the same way?** Broken shells enable them to see how the spiral is constructed and also why it is so strong.
 - **A sea snail has a much stronger shell than a garden snail. Why is this important?** (to withstand the pounding of the sea). **Can you find evidence of other sea creatures attached to the shell?** (barnacles and tube worms). **Which creature might have chosen this empty shell to live in ?**(hermit crab)
- Give each child one shell to examine closely. **In what condition is it? Has the animal died recently or has the pounding of the waves smoothed the shell? Are there any small holes in the shell?** This may be evidence of attack by predators. A Dog Whelk will drill a hole into the shell of a mussel, limpet or barnacle and then eat its victim by pushing its tongue through the hole!
- As a follow up to this discussion the children could make observational drawings of their own shell for display.

Investigate Shells

Work in groups. Explore the beach on either side of the Scottish Seabird Centre. Try to find an example of each of the shells shown. Tick ✓ the picture to record as you find. (If the weather is bad, examples of these shells can be found in the Education Centre).



Back at school:

Each of the shells which you have found was once the home of a living creature. Find out more!

- Each group should choose one of the shells to investigate.
- Find out which part of the seashore is home to this creature. What does it eat and how does it do this? Is your creature food for any other seashore creature?
- Use a magnifying glass to look carefully at your shell and then make a careful drawing.
- Each group should make a fact sheet using this information. These can be collected together to make a class book about shells.