

Rockpool Discovery

Site and Follow-up Activity



What Can Be Learned?

Intertidal rock platforms are filled with unique marine life. Living things that survive in these places have some amazing adaptations which enable them to survive despite extreme changes in temperature. They are also exposed to being in and out of the water, and the fact that their position may leave them vulnerable to predators. Rockpools play an essential role in the foreshore ecosystem and food web.

Through this activity students can learn:

- About the variety of animals that live in these places and about biodiversity.
- To identify marine creatures by name.
- About the adaptations rockpool creatures have developed in order to survive in this habitat.

Materials Required

Digital camera
ID chart/checklist (laminated if possible)
Paper, pencils, clipboard
Thermometer

The Activity

First, encourage observation, without any pens/paper or recording. Students take photos of what they find in and around the rockpools. From their pre-visit work, students should already be familiar with some animals.

Some of these living things could include: star fish, limpet, sea anemone, crab, barnacle, chiton, sea lettuce, neptune's necklace, sea urchin, flatworm, tube-worm (Galeolaria), mussel, periwinkle, elephant snail, Nodilittorina (a tiny blue shell, often in groups), nudibranch (sea slugs), turbo shells (warrener), rock oyster, sponge, cartrut shell, screwshell, venerid shell.

Note - there are some books and websites that have illustrations that can be used to create a checklist. Some resources are listed on the 'More Information' pages at the end of this unit.

Things to talk about:

Hand out an ID chart – how many of these marine creatures can you see?

Living things in and around rockpools are unique because they can survive in and out of the water (high and low tide), in varying temperatures (exposed at low tide in the midday sun compared to under water at high tide during the night), in different levels of salinity (rainwater at low tide can cause freshwater pools), and in places where they are vulnerable to attack by predators (eg shore birds). Look carefully at some of the living things in and around the rockpools. What special features (adaptations) do they have to make themselves safer in this exposed environment?

Things to record:

- How many different living things can you count in one rockpool?
- Write down three adaptations you have observed.
- List three animals that have to deal with spending time in and out of the water.
- Record the temperature in a rockpool, the sea and near an animal that is currently out of the water. What is the difference?
- Choose one living thing to sketch. Do you know what it is? Write a description underneath, and where you saw it.

Back In The Classroom....

Scientific drawing - You may notice that in scientific reference books drawings are often used instead of, or as well as, photos. Much more detail can be included in drawings, so they are often better in helping us, and other scientists, to identify animals and plants.

Choose one living thing from the rockpool observations, possibly the one sketched on-site. Using the original sketch, photos taken on the day or other available photos, produce a scientific drawing. Colour it in with sharp colour pencils. Find out more about the creature using reference materials. In a style like a reference book, write information about the creature underneath the drawing, including the adaptations it has to survive in this habitat, diet, and predators.

Tough living conditions - List the conditions that rockpool creatures must survive in - the things that can make life difficult for a rockpool creature. What was the temperature range, from the sea to out of the water? Discuss a day in the life of a rockpool from the chosen creatures perspective.



Students exploring a rockpool with a Parks and Wildlife Education Ranger.