

At the Touch Pools

Objective

To reflect on the experience of handling plants and animals at the aquarium's touch pools.

Experiences and Outcomes

HWB 1-09a

As I explore the rights to which I am entitled, I am able to exercise these rights appropriately and accept the responsibilities that go with them. I show respect for the rights of others.

SOC 1-13b

By exploring a natural environment different from my own, I can discover how the physical features influence the variety of living things.

Background Information

The Moray Firth has a large diversity of life that can be explored using our senses. The aquarium's touch pools offer the opportunity for pupils to explore the underwater world through the sense of touch.

Common Starfish

The common starfish has 5 arms and has a rough feel to its upper body. The underside has hundreds of tiny tube feet with suckers on the end that it uses to cling on to rocks and open its food; molluscs such as mussels, clams and oysters. After prising the mollusc shell open, the starfish pushes its stomach into the shell to eat the juicy insides. Starfish do not have brains or faces but they do have 'eye spots' at the end of each arm and can detect light and dark areas of a rock pool. If a starfish loses its leg, it has the ability to grow it back again.

Sea Urchin

Urchins are easily recognised by their sphere shaped body covered with prickly spines. They are relatives of starfish and, like starfish, urchins use tube feet to cling on to rocks and move around the sea floor. Urchins' spines are used to protect them from predators. In the wild, wolf fish would make a tasty snack out of an urchin. Urchins are found all around our coasts, living on the rocks and in amongst the seaweed. The urchin's mouth, also known as Aristotle's lantern, is on its underside and has 5 chisel like teeth that it uses to graze algae and kelp.

Spider Crab

A spider crab can grow to be 15 centimetres across and is usually dark brown in colour. The crab's head and body are joined together and make a hard shell called a carapace, which protects it from predators. The crab uses its legs to cling on to the rocks and prevent it from being washed away in the waves. Crabs, like lobsters, have 10 legs, the front two of which are pincers. The spider crab is a scavenger, eating dead animals it finds on the sea floor, using its pincers to grab and tear the meat and placing it in its mouth.

Hermit Crab

If you go down to a rock pool at low tide you will almost certainly find a hermit crab hiding under the rocks. The head, body and legs of the hermit crab are made from a hard shell but its body is soft and so the hermit crab lives inside the old shell of a sea snail. As the hermit crab grows it has to continually find bigger shells to hide in. The crab's hind legs are used for clinging on to the shell so it can move around with its home on its back and avoid being eaten by predators. Like the spider crab, the hermit crab is a scavenger, eating dead animal remains in the rock pool.

Anemone

If you imagine an upside-down jellyfish attached to a rock with its tentacles protruding into the water, it will be no surprise to discover that the anemone is a close relative of the jellyfish. The anemone has a slimy feel to its body however its tentacles are sticky for catching its food – plankton – as it drifts past in the water. Once the prey has been paralysed the anemone will pass the food to its mouth which is located in the centre of its body.

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Periwinkle

Periwinkles are small sea snails that live on rocky beaches. They are often found living in large colonies near the high tide mark on the shore. Their hard shells are made of calcium and protect them from being eaten by other animals. Periwinkles have two antennae that they use to sense their way around the sea floor. Living in the intertidal zone means that periwinkles have to survive periods of over six hours out of water and to prevent themselves from drying out they pull their body into their shells and cover the entrance with a special flap. When the water arrives back in the rock pool periwinkles open up the trap door of their shells and slide off to find food. Periwinkles spend their time under water feeding on algae growing on rocks.

Seaweed

There are over 40 different species of seaweed growing on the shores around the Moray Firth, from the small red seaweeds to the large brown kelp. Seaweed has a special holdfast which attaches the stalk on to the rocks. The main part of the seaweed is called a frond. Some seaweeds have air pockets that act as floats to keep them upright in the water. Most seaweed is slimy to prevent animals attaching themselves to the fronds and eating it and to avoid it drying out at low tide. Kelp, one of the largest seaweeds is collected by humans to obtain a substance called alginates, which are used in everyday products such as beer, lipstick and ice cream.

Activity

Use the 'In the Touch Pools Activity Worksheet' to reflect on the experience of touching the animals at the aquarium.

Discussion Points and Follow-on Activities

Investigate other animals that live on the seashore and ask the children to write a descriptive piece about their favourite sea creature.