

# Micro Habitats Jigsaw

## Student 1

### Kelp Forests

Like a tree provides shelter, large brown seaweeds called kelp can be home to fish and snails in the upper branches of the kelp, larger snails and crustaceans on the forest floor and a wide diversity of smaller marine invertebrates like brittle stars and sponges around the root like holdfasts. The conditions in kelp forest are quite different to those in other sections of Barwon Bluff Marine Sanctuary.

## Student 2

### Habitats and environments: Micro

An organism's habitat is "where it lives", such as under the rocks in a rockpool, in a seaweed forest, or a sandy desert. Its environment is the set of all the factors, both living and non-living, which affect its survival. (See Factors affecting survival: Abiotic and Factors affecting survival: Biotic)

Around the school playground are many distinct micro-habitats with specific environmental conditions. Each will be "home" to particular organisms because they have adaptations which allow them to survive well in those conditions.

## Student 3

### Rotting Seaweed

Rotting Seaweed is a warm, moist, and safe habitat protected from many predators. It soaks up water making it ideal for small animals, which may dehydrate. Fungi and bacteria feed on the tissue. Many mites, fly larvae, sandhoppers, small crabs, and snails live in the rotting seaweed on the beach. Cellulose digesting bacteria in their gut break down the seaweeds. In turn many of these animals are eaten by fish when the water washes into the seaweeds at high tide, or are eaten by scavenging birds such as gulls, hooded plovers, and oyster catchers, when the tide has fallen away.

## **Student 4**

### **Compost heap**

A compost heap begins life as a heap of waste vegetation including garden and kitchen scraps. The heap begins to warm up as bacteria break down the plant foods and release energy, some of which is in the form of heat. Fungi then start to grow on the woodier materials giving off chemicals, which aid digestion of the decaying vegetation. Numerous "minibeasts" such as mites, slugs, slaters and millipedes move in. Blowflies lay their eggs in the warm moist heap and the larvae develop quickly providing food for compost predators such as beetles and earwigs. Earthworms eat their own weight in decaying vegetation each day. The middle of the heap offers warmth, moisture and protection for young. Within a week the heap may be steaming, but mature compost takes up to six months to form. Animals in the heap need air and water, so the heap will not rot down if it is too dry, too waterlogged or not turned over to allow air circulation.

## **Student 5**

### **Rockpools**

In buildings, humans take advantage of warmth, shelter and food. To many animals, living on the edge of the sea would be impossible because of the constantly changing conditions. Those that can survive in rockpools have special features to help them cope with the challenging conditions. Many animals have hard shells to protect them from drying out as the tide falls, while other seek out shelter under rocks. Smaller seaweeds in the rockpools also can hold moisture and provide shelter for animals exposed by the falling tide.