

## Seaweed and snails

### **Before you start:**

- The seaweed and snails session is best done when the tide is going out.
- Rocks can be slippery when covered with seaweed.
- Limpets (the cone shaped ones) should not be prised off the rocks, as they will die if that happens.
- Fill buckets or trays with sea water at the start and try not to keep the creatures in the bucket for too long.
- Put the creatures back in the same place as you found them.
- If you look under seaweed. Put it back in the same place.
- Check seaweed carefully as often there are eggs and perfectly camouflaged sea snails and sea slugs attached

### **Resources:**

- Buckets: use recycled plastic pots
- String: hessian = no plastic
- Chalks
- Seaweed and snails detective sheet

### **Seaweed or marine algae**

Often when you visit a beach, you see a rainbow array of red, green and brown seaweeds spread across the sand or draped over the rocks. People often describe seaweed as slimy but in fact, it is an important part the coastal ecosystems. It provides food for many coastal animals (limpets, sea snails and sea slugs), shelter for many shelled creatures and protection from the sun and aerial predators when it is low tide. It also plays an important role in producing oxygen, removing carbon dioxide from the atmosphere, through photosynthesis, producing oxygen.

Seaweeds are not classified as plants as they do not have roots, leaves or stems. Instead, seaweed has a stripe (stem), blade or frond, and a holdfast that anchors the seaweed to a surface.

Seaweeds are divided into three colour groups: red, green and brown.

## Sea snails

Sea snails are similar to the snails that you find in your garden but they live in the ocean. They are molluscs, have a soft, fleshy body and a muscular foot.

They come in a wide variety of shapes, colours and sizes. They all look different because they are all adapted to living in different parts of the sea and eating different foods. The majority of the sea snails that we find on the rocky shores of the North East are herbivores, feeding on seaweed. However, there is one - the dog whelk – that is a carnivore: nicknamed the killer driller. It feeds on barnacles and limpets!

### Questions:

- Why do you think sea snails make slime?  
Many marine sea snails, like the limpet, leave slime trails behind so that they can find their way back to their 'home scar' before the tide goes out.
- Can you find a sea snail that is out of the water?
- Can you see the 'trapdoor'?
  - What shape is it? (If it is the shape of an ear it is.....)
  - Why do you think the sea snail uses a trap door?  
*Sea snails die if they dry out so when it is low tide they are in great danger. Sea snails use a trapdoor or operculum, to keep moisture trapped in the shell.*
- Why do you think the bladder wrack seaweed has bladders?
  - What are they filled with?
  - Why?

### Fun learning activities:

- Use the sea snails and seaweed detective sheet to look for snails and seaweed.
- Carefully lift the snail off the rock. Can you feel it sticking? (It's the slime that helps them to stick to the rock) Put your snail in a bucket with some water in it and watch what happens. Can you see the tentacles? Has it left a slime trail behind?
- Seaweed is often named by how it looks: sea lettuce, serrated or toothed wrack and thin sausage weed. Find a piece of seaweed that is not on the list, look at it carefully. What makes it special? Give it a name.
- Find some dried seaweed on the beach. Is it easy to tell what it is? Put it into some water. What happens?
- Collect three different shells (flat periwinkle, top shell and a dog whelk) How are they similar?

How are they different? One has a flat shell, one has a pointed shell, one has a groove (for the drill to go through)

- Look for empty limpet shells on the beach. Decorate one using chalk/pastels.
- Collect one piece of red, green and brown seaweed from along the shore line, shells with holes in and a piece of driftwood. Cut some lengths of hessian string and make a seashore mobile to remind you of your day at the beach.

### Stories to share:

Sally and the Limpet by Simon James: a story about a child who gets a limpet stuck on their finger.

The snail and the whale by Julia Donaldson and Axel Scheffler

