

## North Sea Rocky Shore Explorers

**Subject links:** Science, English, Numeracy, Art

**Curriculum links:** biodiversity, adaptations, wildlife, climate change, habitats, seashore ecology, animal classification, group work, creative thinking.

### Key stage 2: Lesson 1 - Introduction to rock pools

#### **Introduction**

Rock pools, found by the sea, in the intertidal zone, offer an exciting opportunity to view another world. A world that is teeming with colourful and extraordinary life.

Rock pools are mini marine ecosystems that form when the tide goes out on a rocky shore in the crevices, hollows and gullies. Home to a wide variety of plants and animals, there is always something to find below the surface, be it a camouflaged crab or flower like anemones with their deadly flowing tentacles.

In this lesson, we will explore what a rock pool is, why it is such a hostile environment and identify some of the creatures that call a rock pool home. We will look at how the animals are adapted to life in a rock pool, group them by identifying similarities and differences.

We will make an own artificial rock pool, filling it with marine plants and animals.

#### **Extension:**

Use the artificial rock pool to develop survey techniques: grid working out percentages of cover.

#### **Learning outcomes**

- Identify animals found in UK rock pools
- Explain how animals have adapted to life on a rocky shore
- Group animals by comparing and contrasting physical features
- Work cooperatively

## Teaching and learning

### Task 1: Rocky shore rock pools PowerPoint presentation

- Begin the lesson by presenting the PowerPoint to learn all about rock pools. Learn why the rocky shore is such a harsh environment to live in and divided into distinct zones. Discover the ways in which animals and plants have adapted to life between the tides.

### Task 2: Identify similarities and differences

- Students to each describe one of the rock pool creatures: hard shell, two claws, soft body.
- Group the animals according to the characteristics  
Vertebrates/invertebrates
  - Invertebrates: sponges, cnidaria, worms, crustaceans, molluscs, bryozoans or sea mats, echinoderm, sea squirts
  - Vertebrates: fish

### Task 3: Practical activity - make a class rock pool

- Create a rock pool using 100% natural cat litter, PVA glue and rock coloured water-based paint. Make the sea creatures using moulding clay, seaweed using fabric or tissue paper.

### Extension:

Survey the sea life in your rock pool using a 10cm x 10cm grid. Work out the percentage of barnacles, limpets, etc.