



The Seashore Stage

Art and science have always been natural partners, but what about combining drama with science? The following activities can be done before and after a trip to the rocky shore.

Objectives: To understand environmental conditions and hazards faced by intertidal plants and animals, and foster appropriate behaviour for seashore visitors through process drama.

Curriculum Links: This activity can be modified for all levels.

Science (Living world – Ecology)

The Arts (Drama –Developing Ideas, Communicating and interpreting)

Pre-Trip Activity (before the rocky shore field trip)

1. Discuss the tidal cycle and how the level of the water on the shoreline changes from high tide to low tide.
2. Define the intertidal zone (area of the shore between high and low tide) and list the types of animals and plants they expect to find living there.
3. Turn the students into animals on the rocky shore and the classroom (or teaching space) into the intertidal zone. Define which side of the classroom is the high tide zone, making the opposite side the low tide zone. (If you are outside get the students to sit on sloping land to make it more realistic.)
4. The teacher acts as the tidal level and stands with outstretched arms (or extends a length of string between two people) to represent the water level. Explain that marine animals breathe, feed and move when they are covered by water at high tide. But as the water level drops these activities become more difficult.
5. The teacher, as the tide goes out, walks towards the low tide zone. Have the students hold their breath as the 'tide' passes their face and take their next breath only when the tide returns. When the teacher reaches the edge of the low tide zone (other end of classroom), the tide turns. As the 'tide' returns, and they are again underwater, they are allowed to breathe, feed and move again.
6. Repeat the process for two or three tides. The students near the top of the rocky shore will be finding it quite hard to get enough breath to last the while the 'tide' is out.
7. Discuss how intertidal animals breathe? How does their environment change when the tide goes out? ? Brainstorm ideas with the class.
8. If the students were animals living in the intertidal, what zone would they want to live in and why? What adaptations would help them survive there?

Post-Trip Activity (after the rocky shore field trip)

1. Have students revisit their rocky shore list of animals and plants and make a second list with the animals/plants that they actually found.
2. Each student choose a role – an animal or plant that they encountered on the field trip to investigate further.
 - How does it breathe?
 - What does it eat? How does it catch its prey?
 - How does it move? How does it stay damp and cool at low tide?
 - Who are its predators? How does it avoid being eaten?
3. Some students may want to act as scientists, tourists or school children visiting the shore.
4. Have each student make a hat or prop and name tag to illustrate their character.
5. Go back to the teaching space (slope) and have the students position themselves in the tidal zone where they think they can survive. Present the following scenarios and give them 30-60 seconds to act them out.
 - Tide comes in
 - Tide goes out
 - Pollution washes up on the beach
 - A contractor dumps sand on the beach
 - A gull arrives looking for food
 - Plankton is abundant (plankton bloom)
 - A party of school students turns up
6. Ask the animals/plants how it felt to have people exploring their home. Which scenarios had a positive effect on the seashore residents? Which had a negative effect?
7. Environmental Action – As a class, write a code of conduct for the seashore. Present it as a poster and display it in a prominent place where visitors to the seashore will see it. Write an article for the local paper to highlight best behaviour when exploring the seashore.

