LESSON 6
Habitat
Kindergarten to Grade 3

Objectives
- To learn what habitat is and the components of habitat.
- To create a habitat for an animal that includes water, food, shelter, and space.

Materials
Construction paper, tissue paper, crepe paper, scissors, glue stick.

Concepts
- Intertidal (seashore) animals have needs for food, water, shelter, and space to survive, much like humans.
- A habitat is the natural home of a plant or animal.

Activities
1. The elements of habitat

A. What is habitat?
A. The natural home of a plant or animal, the place that it lives.

B. What does habitat consist of?
A: The elements that living things need to live: water, food, shelter, and space.

C. What does it mean to survive? What do humans need to survive?
A. Examples are clothes, water, food, parents etc.

2. Water

All living plants and animals on earth need water to survive. The planet Earth is about 75% water. Humans are mostly water and all organisms, down to the smallest bacteria, need water.

A. Why do we need water?
A. Quench our thirst, keep clean, keep our skin from drying out, etc.

B. Why do intertidal creatures need water?
A. To keep them from drying out, to let them breathe (take oxygen from the water through their gills), to provide food, etc.

3. Food

They need food for energy to move, defend themselves, reproduce.

4. Shelter

They need shelter to have a safe place to hide from predators and to be protected from the impact of strong waves etc.

5. Space

A. Activity - How much space do you need? Students move around the classroom. Each time the teacher calls "freeze," students stop moving and remain still. When the students move again, the teacher makes the space to move around in smaller, and then call "freeze" again. The area should continue to get smaller until it becomes so small that it is difficult for students to move anywhere.

Discuss why all animals and plants need space and what might happen if humans or other animals didn't have enough space. Compare the amount of space a limpet might need to the amount a whale might need.

6. Habitat needs

A. Could you survive if you didn't leave your bedroom at all?
A. No, because you need to leave to get food, go to the bathroom, visit friends, etc.

B. Brainstorm and discuss intertidal creatures.
i. How are they alike and different from humans?

ii. What do different marine creatures need to survive?
A. They need different types of food and shelter and different amounts of space.

iii. Compare purple shore crabs, kelp crabs and dungeness crabs. How are their habitats different?
A. Purple shore crabs live under rocks and are small, so rocks do not have to be very big. Kelp crabs live in algae (seaweed), hanging onto seaweed for protection. Dungeness crabs live on sandy bottom and bury themselves in the sand when they need to hide.

iv. Have students act out being different types of crabs and other marine animals doing different activities in their habitats.

- How does a shark rest in its habitat?
- How does a kelp crab rest?
- How does a barnacle eat?
- How does an eagle eat?

7. Intertidal habitats
There are many different kinds of habitat in the ocean.

A. Have students brainstorm different intertidal habitats.
Examples include eelgrass, mud flat, sandy beach, cobble beach, rocky shore and estuaries.

B. Have students brainstorm other kinds of ocean habitat.
A. Examples include kelp forests, rocky underwater, sandy underwater, seamounts (underwater mountains), ocean trenches.

8. Creating Habitat
Have students make a habitat for the crab they painted in Lesson 3 about life cycles. They can use crepe paper, tissue paper and construction paper. Be sure to include all the elements of habitat.

Conclusion

- Review what a habitat is.
- Discuss some different ocean habitats.
- Look at pictures of different local intertidal habitats.