Sock Anemone

Objective: To identify the parts of a sea anemone and to define and demonstrate a symbiotic relationship.

Background:
Sea anemones have soft tube-like bodies called polyps. One end of the polyp is sealed while the other end of the polyp has a mouth and tentacles. The sealed end of an anemone is a flattened foot, called a pedal disc, which is used to attach the anemone to hard surfaces in the ocean or sometimes to burrow into sand. At the other end, the tentacles surrounding the mouth have stinging cells to capture prey. Some anemones have a symbiotic relationship with clownfish. The clownfish secretes a mucous coating that prevents the tentacles of a sea anemone from stinging it. So the clownfish can use the anemone as shelter to protect it from predators, and the anemone is rewarded by the clownfish dropping food into his friend’s mouth. Each animal benefits.

Procedures:
1. Pour a handful of beans into the sock (enough to make the sock stable and able to sit up by itself).
2. Fill the sock halfway up with stuffing, roll down the rest of the sock, and place a rubber band under the roll.
3. Have students color the sock with markers however they would like.
4. Fill the opening with pipe cleaners and bend them to resemble tentacles.
5. Paint the tongue depressor piece with white and orange stripes to resemble a clownfish and glue on the eyes.
6. Nestle the clownfish in the tentacles of the anemone and use the model to explain the parts of a sea anemone and to explain symbiotic relationships.

Learning Extensions:
Have students research other relationships between animals in the ocean, such as cleaner wrasses and groupers, algae and coral, remoras and sharks. Ask them to report on what the relationship is and whether or not both animals benefit from the relationship.

Fish Find
To study coral reef fish without traveling thousands of miles and scuba diving, visit the Aquarium of the Pacific. If you cannot get to the Aquarium, then go to a pet store that carries tropical saltwater fish. Look closely at the color of each fish and at the surrounding coral reef. Notice any similarities? Next, look at the shape of each fish’s mouth. Identify the fish that have a mouth that is adapted for eating food found in the reef’s cracks and crevices. Identify the fish that have a mouth adapted for eating food found along the outer surface of the coral reef.

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