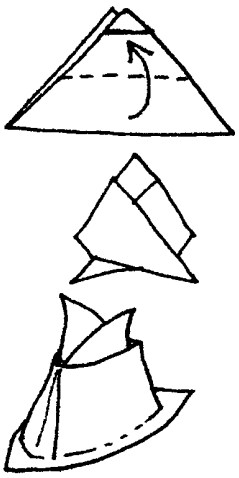
Origami Barnacles



Key Concepts

1. Close observation brings a greater understanding of an animal and an appreciation of its habitat.

2. Barnacles use their feathery legs to collect plankton and oxygen from the water.

Background

Barnacles are so inconspicuous that many people are surprised when they learn that they are living animals. Related to the showier crabs, shrimps and lobsters, barnacles are the only crustacean that is non-mobile as an adult. As "babies", barnacles are members of the plankton. As they float, they change forms several times, eventually drifting to the bottom and creeping around on antennae looking for a suitable home. Because of their lack of mobility, barnacles need to attach themselves to areas providing a clean flow of water with lots of plankton and oxygen. Once a spot has been chosen, a barnacle attaches its head with a glue-like substance and begins to change (metamorphose) into an adult. Once they are attached, barnacles are committed to a spot for life. For attachment, barnacles prefer rocks, shellfish, or other hard surfaces, especially those found in swift currents. Some barnacles assure a constant flow of water by attaching themselves to boats and whales!

The "lowly" barnacle is, in reality, quite a fascinating creature. Additional background information is found in the preceding activity, "Barnacle Beats".

Materials

For each student:

- 6" x 6" paper square (approximate size; use origami paper, if available)
- colored pencils, crayons, etc.

Teaching Hints

In "Origami Barnacles", students create paper barnacles as they review form and function in barnacles.

Note that while the directions for barnacle construction are presented in a stepwise fashion, some students will have difficulty in creating their barnacle. You will be better equipped to give them the assistance they need, if you have made your own origami barnacle prior to commencing the lesson.

Finished barnacles make a nice addition to the tide pool constructed in Unit 2, "Tide Pools in the Classroom".

Key Words

barnacle - any of several species of crustaceans; most with volcano-shaped shells, whose larvae cement themselves permanently to a hard surface

cirri - the jointed appendages or legs of barnacles used for straining plankton and oxygen from the water

plankton - the mostly microscopic plants and animals that drift in water; singular = plankter

Extension

1. Origami can be lots of fun. Have students look for directions for other tide pool creatures; then, make them to add to your classroom tide pool.

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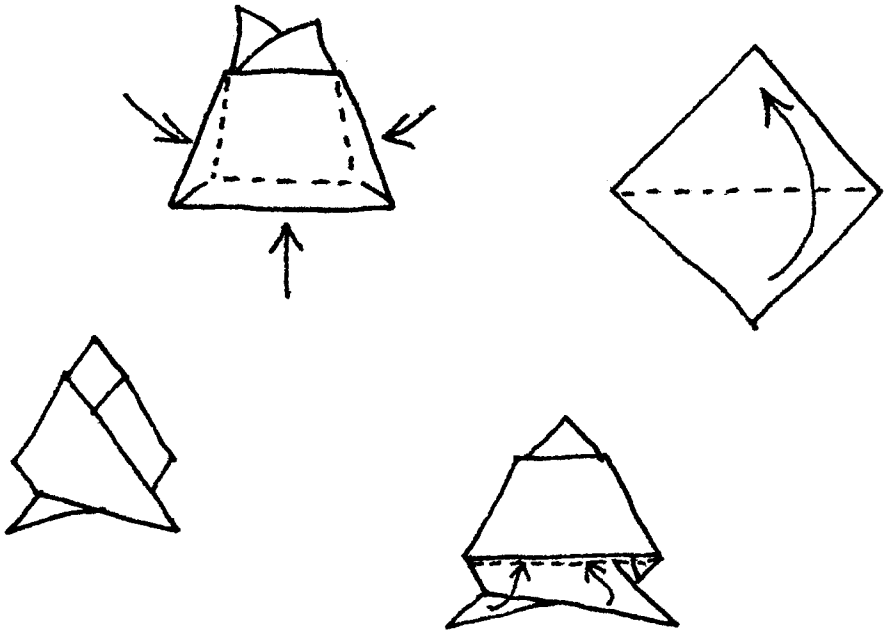


You may have seen the volcano-shaped shells of barnacles at the beach. Barnacles are relatives of crabs. Baby barnacles are part of the plankton. As they grow, the glue themselves to almost anything. After that, they do not move. Many live on rocks. Some live on boats. Others live on whales.

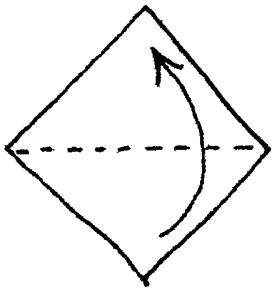
A barnacle seems upside down. Its head is glued to a hard object. Its feathery legs are up in the water. It sweeps the water with its legs. In this way, it gathers plankton into its mouth.

Barnacles are very interesting animals. Why don't you make an origami barnacle of your own?

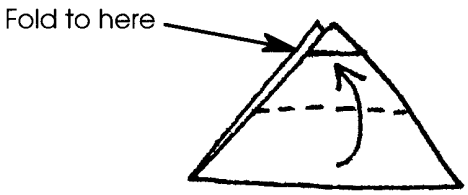
Here's how:

1. Get a square of paper. If available, origami paper works great.

2. Fold the bottom corner up to the top.

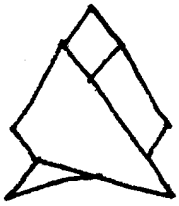


3. Fold the bottom edge up almost to the top. Be sure to leave some of the top corner showing.

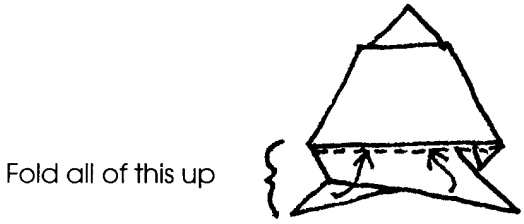


4. Turn the paper over. Fold the two corners toward you. Make the folds big so that they cross each other. (Some of the body will fold, too.)

5. It should look something like this:

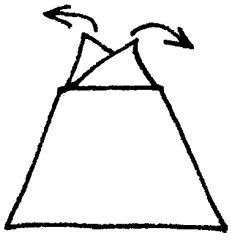


6. Turn the paper back over. Fold the crossed corners up as one piece.

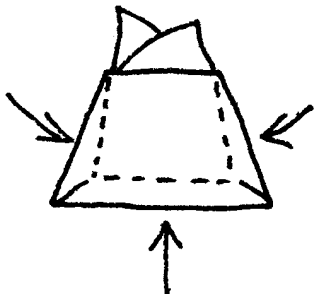


7. Tuck the folded paper inside the body.

8. Gently fold back the top corners to open the top.



9. Give your barnacle a little shape. Push in the sides and bottom.



10. Admire your barnacle.