



Activity 1: Kelp Forest Collage

Primary Activity Standard: K-2-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Essential Questions:

- 1) What creatures live in and among kelp forests?
- 2) What strategy does kelp use to get sunlight for photosynthesis?

Learning Objectives:

Student will be able to:

- 1) Identify the creatures that rely on kelp forests.
- 2) Explain the problem kelp face around getting sunlight, and how they have developed a solution for this issue.

Key Concept: Kelp is a favorite, easily attainable food for many aquatic organisms. Sea urchins are one of the primary consumers of kelp in nearshore environments. Fish also graze on kelp, as do many small invertebrates. Animals that prey on the herbivores are drawn there because of their presence. Anemones, sea stars, and crabs all feed on the invertebrates, while sea otters prefer sea urchins. Urchins are voracious kelp eaters, so sea otters are key to keeping the urchin population under control, which helps preserve the kelp forests.

Assessment: Participation in the activity.

Activity Instructions: *All parts of this activity can be found in this document.*

Teacher Prep/Considerations:

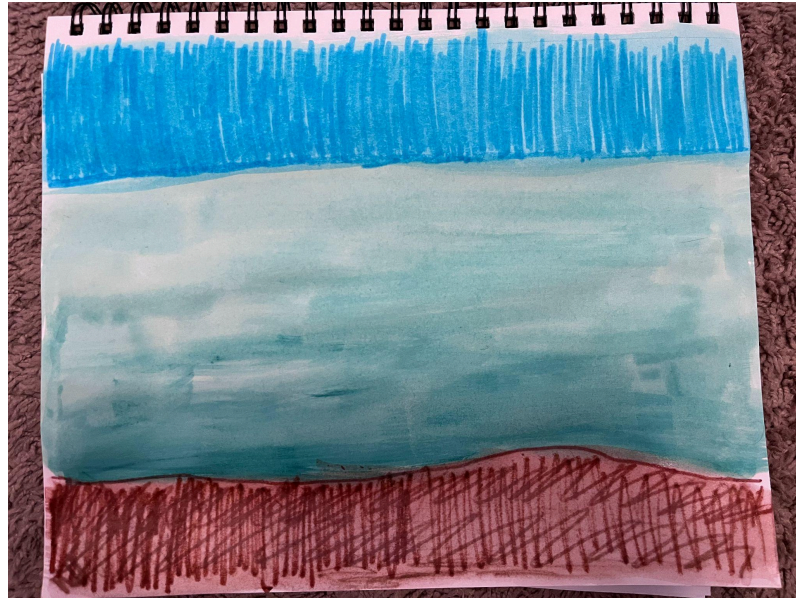
Set out materials for the activity (provided by GSSC):

- 1) Construction Paper
 - 2) Tissue paper
 - 3) Crayons and/or markers
 - 4) Glue
 - 5) Child-safe scissors
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Activity:

- 1) Before the activity starts, ask students to explain why the kelp needs to reach the sunlight at the ocean's surface.

- 2) Have students draw ocean water on their construction paper with a defined ocean bottom and surface layer.



- 3) Ask students to cut out kelp from green tissue paper. This can be done by cutting out a long strip of paper about 2 inches wide, folding it lengthwise, and cutting “blades” into it, leaving about ½ inch connected along one side. Cut the long strip about as tall as the length from the ocean bottom to the ocean surface of the drawing. Make enough kelp pieces to cover the ocean but don’t attach them to the drawing yet.



- 4) Ask students to either draw or cut out kelp forest creatures from construction paper/tissue paper.
- a) Creatures: Sea otters, sea urchins, crabs, fish, anemones, sea stars



- 5) Glue the kelp forest down to the drawing, so that the bottom of the kelp (the holdfast) is on the ocean floor, and the top (the float) reaches the ocean surface.
- 6) Glue the sea creatures in and on top of the kelp forest. The sea otters float on the top and the fish swim in the kelp, while the sea urchins, the crabs, the anemones, and the sea stars will be on the ocean floor.



Optional Extensions:

- [Garden of the Land and Sea Worksheets](#) additional materials
- Want to look at how kelp interacts with other sea creatures in the food chain? [Watch this video.](#)
- Want more worksheets and coloring pages? You can print and work through this [seashore packet.](#)
- [Sea Creature Yoga Video](#) - follow along with the yoga poses inspired by some of our favorite sea creatures, including kelp!