

Kelp Forest Collage

Discover the role of sea otters in keeping the kelp forest healthy!

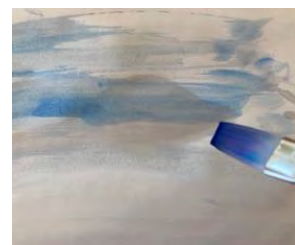


Materials Needed:

Kelp Forest Printable (or draw your own), large piece of white paper, green tissue paper, watercolor paints, paintbrush, salt, blue yarn, colored pencils, scissors, glue.

Instructions:

Step 1: Paint the ocean. Use a paintbrush to spread water on a piece of white paper. Paint the ocean on the wet paper with watercolors, but leave about two inches of white at the top of the paper. Sprinkle salt over the paper to add a watery texture. Leave the salt in place until the paint is completely dry.



Step 2: Add animals. Paint or color the printed animals. After they dry, cut them out.

Step 3: Make kelp. Cut a strip of green tissue paper about 3 inches (7.5 cm) wide. Fold the strip so there are several overlapping layers. Cut fronds, leaving $\frac{1}{2}$ inch (1.25 cm) connected along one side. Cut the long strip into lengths about as tall as your painted ocean. For each piece, fold every other frond to the opposite side (see picture). Make enough kelp pieces to cover your ocean.



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Step 4: While your ocean and animals dry, try watching sea otters on the Monterey Bay Aquarium live cam:

www.youtube.com/watch?v=TO7J7649FK8



Image: Linda Tanner, Flickr.

Step 5: Assemble your kelp forest collage. When the paper is dry, brush the salt off. Glue the stems of the kelp pieces in the ocean to make a kelp forest. Glue a piece of blue yarn at the top of the water for the surface. Add the sea otters floating on the surface, and the other animals in and around the kelp. Kelp provides these animals with food and shelter!



Image: Stef Maruch, Wikimedia Commons.

Try This: Many ocean species live in kelp forests. Can you think of any that were not included in this activity? Crabs, whales, and seabirds are some examples. Try drawing these species and adding them to your collage!

**Discover more about how sea otters maintain the kelp forest
(courtesy of BBC Earth):**

www.bbc.com/future/article/20140121-sea-otters-our-ocean-protectors

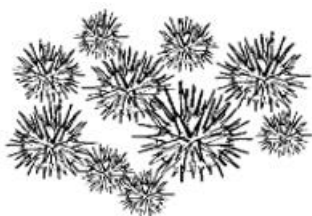
The Kelp Forest Ecosystem

Discover some of the species of the kelp forest and how they interact!



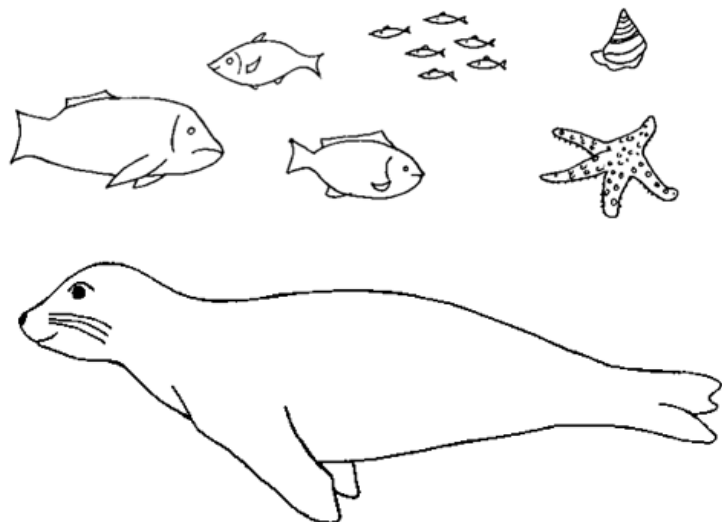
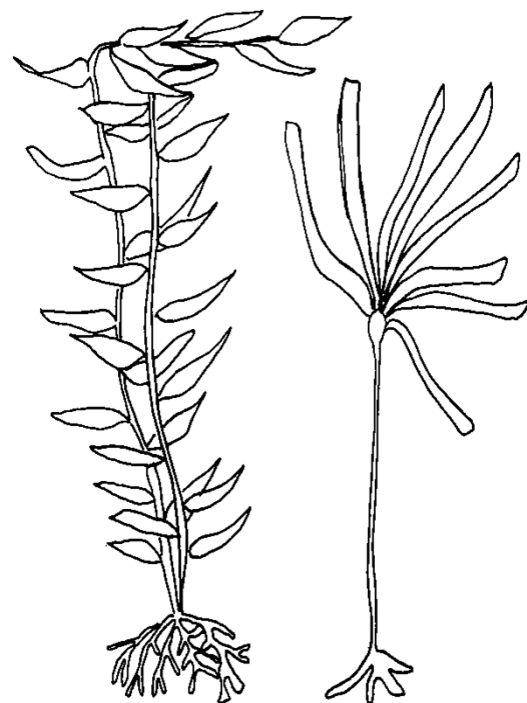
Sea otters are predators. They dive underwater to eat sea urchins, sea stars, crabs, clams, and other small ocean animals. They are called a *keystone species* because they keep the ecosystem healthy.

Kelp are large seaweed (brown algae) that grow into giant underwater forests along coasts. Kelp forests are a habitat for thousands of species. Kelp absorbs carbon dioxide and keeps ocean water healthy so it can be full of life.



Sea urchins eat a lot of kelp. If an area of kelp forest has too many sea urchins, it will become *barren* (without plant life).

Phytoplankton bloom in sunlight, produce oxygen, and are the base of the food chain.



Kelp forests provide food and shelter for many fish, invertebrates, marine mammals, and sea birds. Some animals feed on kelp, and some eat the animals that live in kelp. Many animals raise their young and shelter from storms in kelp forests.

Kelp Forest Printable

Sea Otters



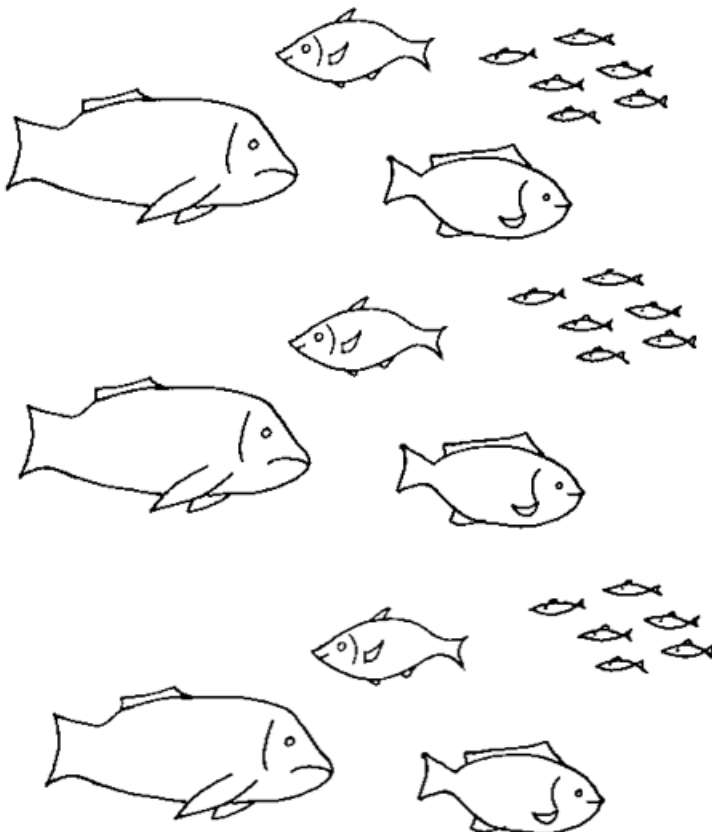
Snails and Sea Stars



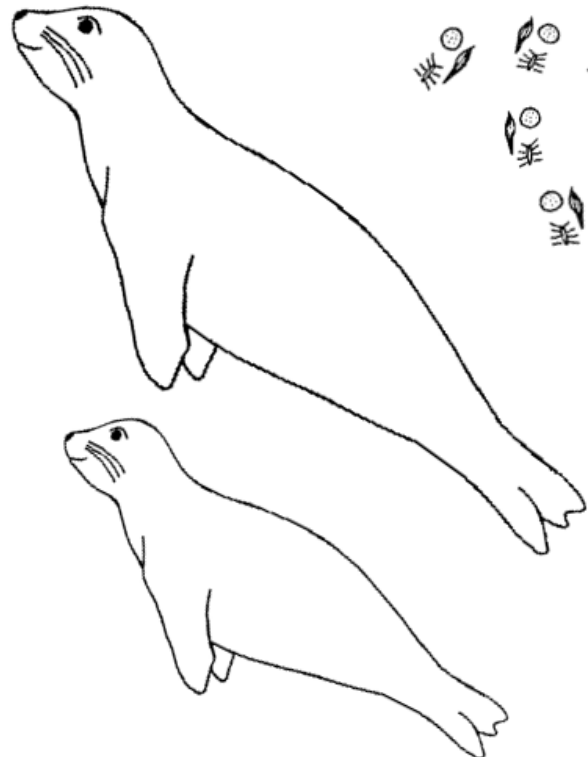
Sea Urchins



Fish



Seals



Phytoplankton

