

# Science @Home

## CALIFORNIA COAST



**Don't unpack that beach bag —we're heading back to the California coast! Enjoy another week of hands-on, multimedia activities for kids ages 4-8.**

The California coast is a recreational paradise for humans —and a critically important habitat for unique plants and animals. Introduce your youngest beachcombers to captivating coastal creatures like sea otters, sand dollars, and octopuses through coloring, crafting...and a little bit of light cooking.

*Please note: While Science @ Home activities are designed to be conducted by kids, some little ones might need adult help with reading instructions and preparing crafts.*

### Day 1: Sky and Surf

60–90 minutes

- » California Coast Critter Circle (craft)
- » The California Coast with Octopus (video)
- » California Brown Pelican Skull (activity)
- » Paper Plate Gull (craft)

### Day 2: Tidepools

45 minutes

- » Creatures of the Tidepool (coloring) (en español)
- » Sand dollars, Sea Stars, and Urchins (video)
- » Octopus Crown (craft)

### Day 3: Kelp Forest Friends

60 minutes

- » Color and Cut Kelp Forest (coloring) (en español)
- » Sea Urchin and Sea Otter Craft (craft)
- » Seaweed Salad Snack (activity)

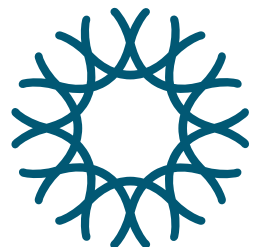
### Day 4: Seashells

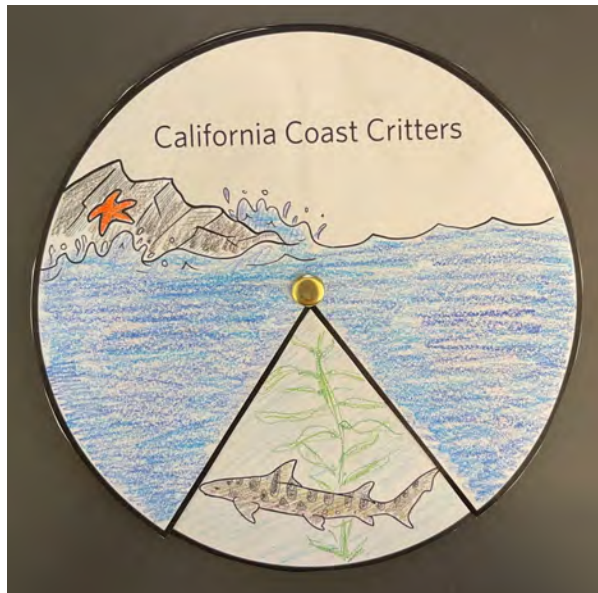
45 minutes

- » Shells: Art, Armor, Abode (video)
- » Egg Carton Hermit Crab (craft) (en español)
- » My Special Scallop (craft)

### Kid & Caregiver Extension Activities

- » Spiky Sight (video)
- » Sea Urchin Teeth (resource)
- » Mystery on the Reef: Wolf Eel (video)





# California Coast Critter Circle

From the swaying fronds of the kelp forest to the sandy shoreline, the California coast is home to an incredible diversity of animals.

Learn about five of California's unique coastal animals by making a spinning wheel craft. Which is your favorite?

## Materials

Scissors  
Circle templates (pages 4 and 5)  
Markers, crayons, or colored pencils  
Metal brad

## Directions

1. **Cut out** the templates on pages 4 and 5.
2. **Color** in the circles. **Learn** more about the five animals on pages 2 and 3, and use the photos as inspiration as you color each critter.
3. **Stack** the circles, with the animals on the bottom. **Push** a metal brad through the center of each circle and fold the prongs out flat.
4. Slowly **Spin** the bottom circle, revealing a new animal in the peek-a-boo window. Have you seen any of these animals at the beach or the aquarium?





*Meet some of the charismatic critters that live along the coast of California!*



## Garibaldi

Meet the state marine fish of California! The garibaldi is a bright orange fish that can be found swimming in kelp forests off the coast.

Do you see the garibaldi's heart-shaped tail?

*Photo Credit: Claire Fackler, NOAA.*



## Long-billed curlew

How about that beak! The long-billed curlew can be found in tidal estuaries using its long, curved bill to hunt for crabs in mud and sand.

Candlestick Point, a state park in San Francisco, is named after this bird. Can you guess why one of its nicknames is the "candlestick bird"?

*Photo Credit: R. Baak, USFWS.*



## Gumboot chiton

Say hello to the largest chiton in the world! The gumboot chiton can grow over 1 foot in length and uses its strong, muscular foot to hold onto intertidal rocks.

What do you think the gumboot chiton feels like?

*Photo Credit: Oregon State University*



## California sea lion

California sea lions are very social—and very vocal! They can be found in large groups, swimming or resting on the shore, and barking to communicate with each other.

Do you see the large forehead of the dark-colored adult male sea lion in the center of the photo?

*Photo Credit: Sharon Melin, Alaska Fisheries Science Center, NOAA Fisheries*



## Leopard shark

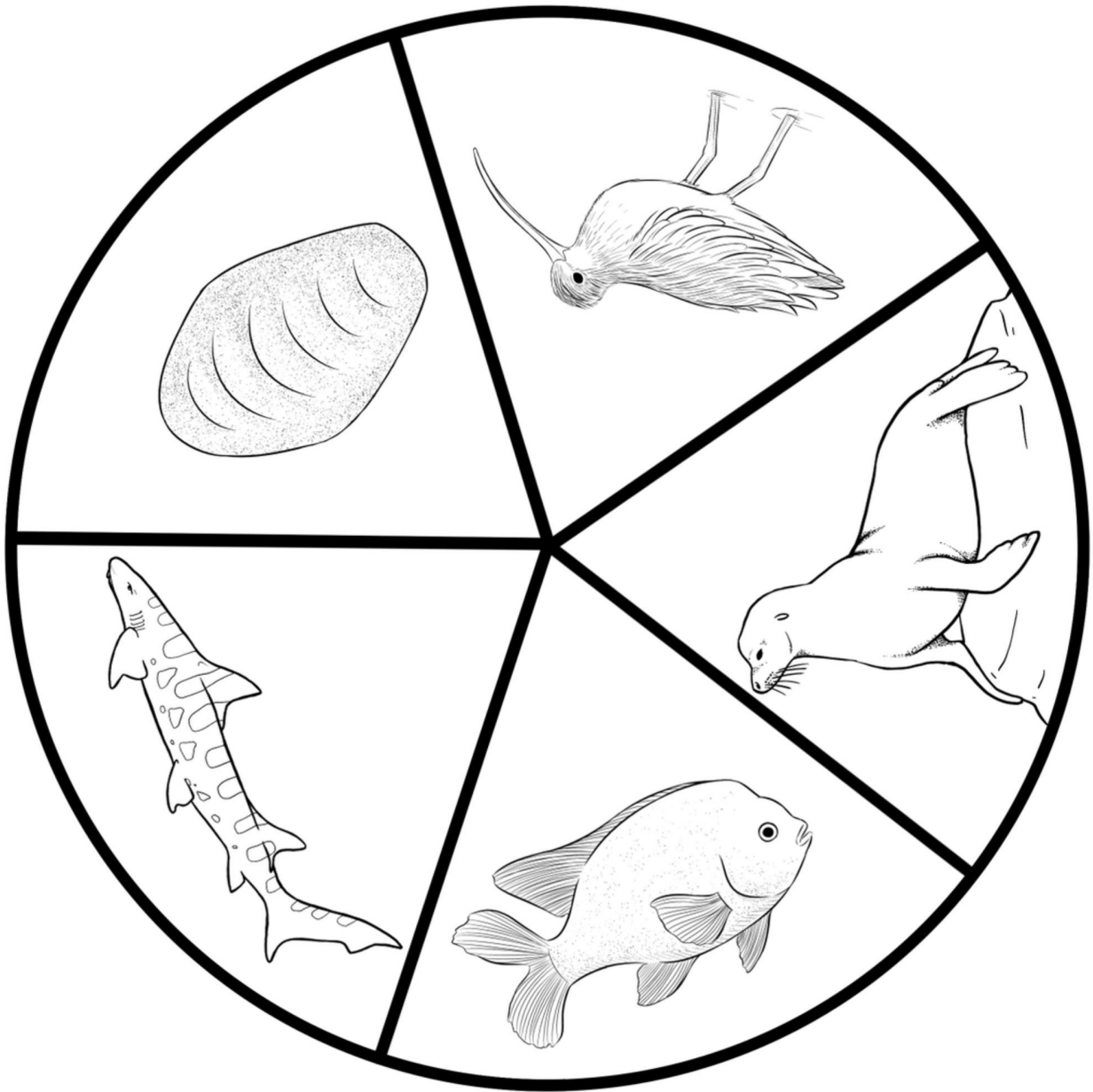
Leopard sharks spend much of their time swimming along the sandy seafloor in kelp forests, eating animals like clams, crabs, and sometimes fish.

How do you think the leopard shark got its name?

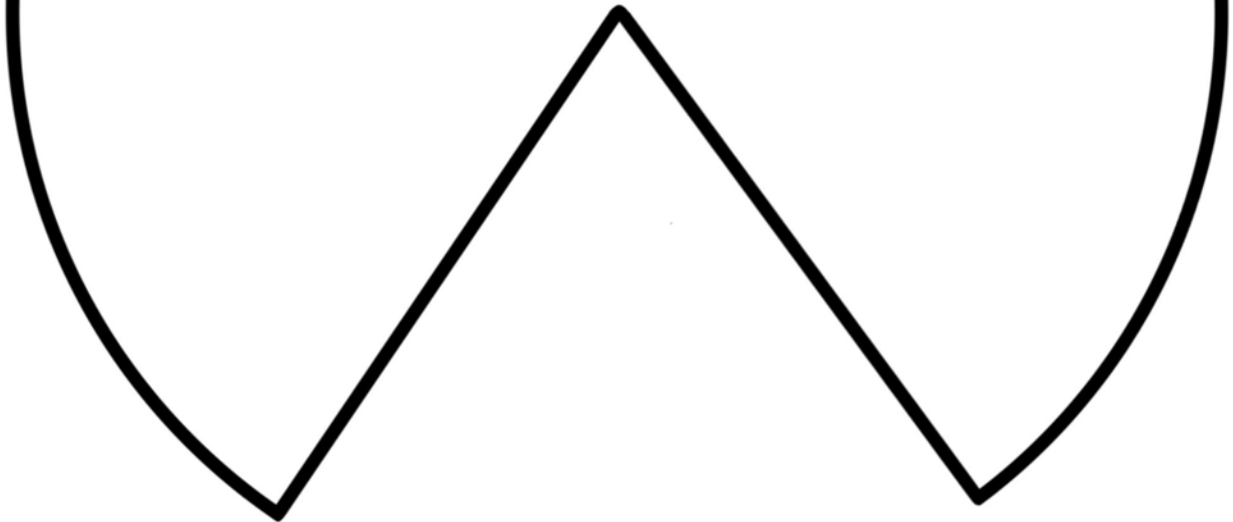
*Photo Credit: Eric Heupel*



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# California Coast Critters





# Paper Plate Gull

Often referred to as seagulls, there are many species of gulls that can be found all over the world. One of our West Coast species is the California gull. These birds are opportunistic omnivores, meaning they'll eat just about anything: plants, fruit, insects, small mammals—whatever they can find!

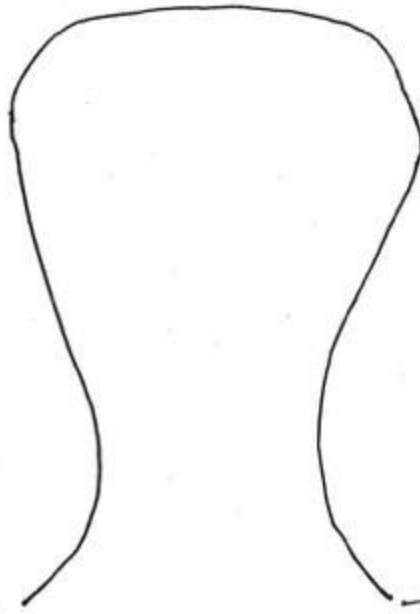
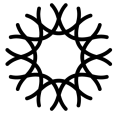
## Materials

- 1 paper plate
- Yellow construction paper
- Crayons or colored pencils (optional)
- Print-out templates (page 2)

## Directions

1. **Print** and **cut out** the template of feet, beak, and head on page 2.
2. **Trace** the head outline from the template on page 2. Or, **freehand draw** the head of the seagull onto the plate as seen in the photo, making sure to copy where the line is solid or dotted.
3. **Cut out** the head of the seagull along the solid line as directed in the photo on page 2.
4. **Fold** the wings of the seagull forward along the dotted line.
5. **Glue** feet and beak on the paper plate.
6. **Draw** eyes on the bird's face above the beak and **color** the seagull however you would like. Many gulls have brown, gray or black mixed in with their white feathers.

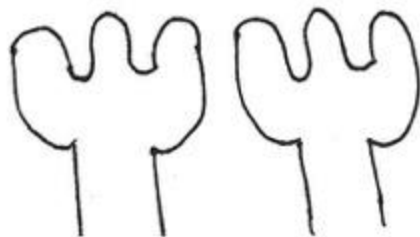




template of  
head to trace  
on plate



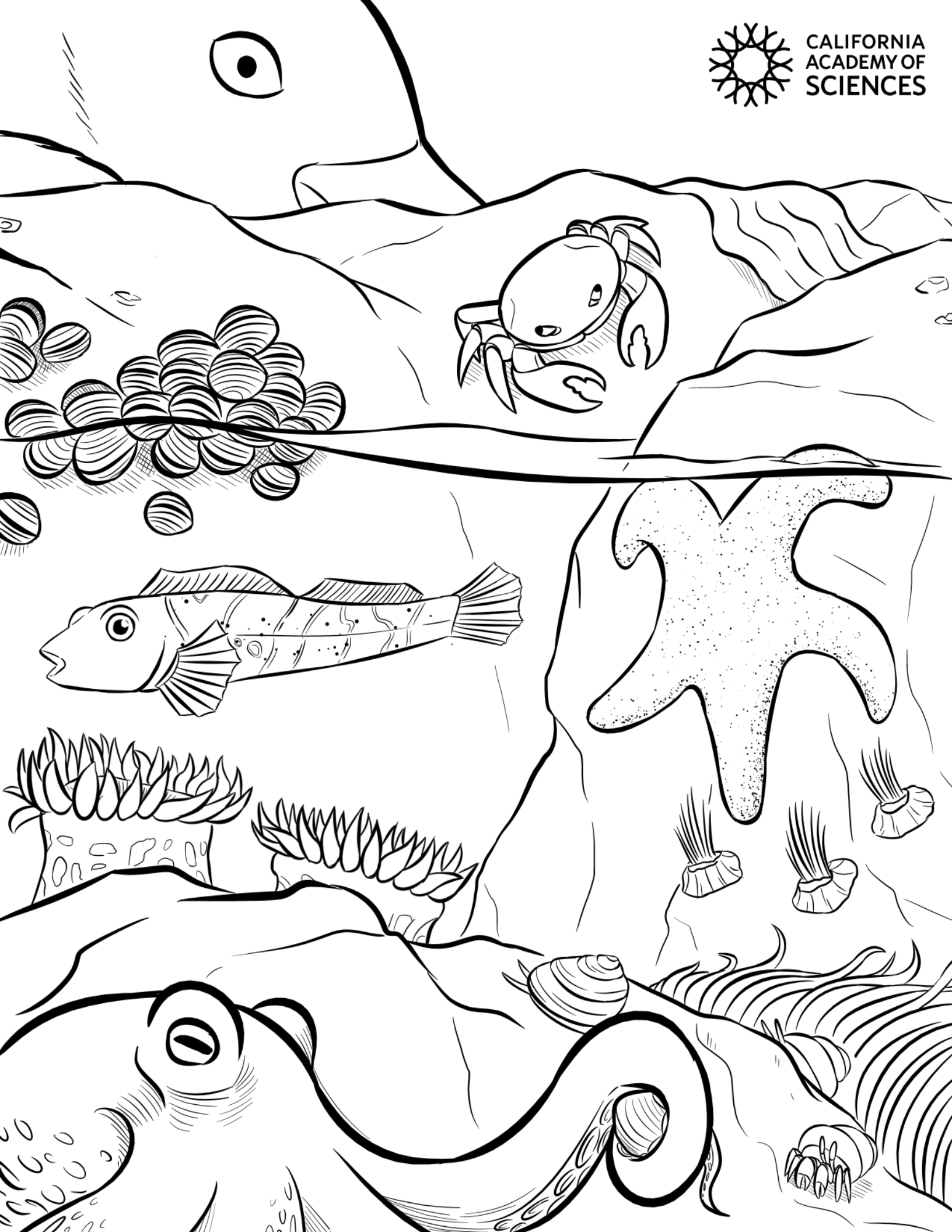
cut out feet and beak  
↓ ↓







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# Creatures of the Tidepool

The tidepools of the California coast are brimming with life, both above and below water. Color in the animals and environment to make your own eye-catching tidepool!

**Seagull:** Predator of tidepools and open-air restaurants alike, the seagull is the most common seabird along the California coast. They are omnivores and will eat anything, including fish, crabs, snails, seeds, and the occasional french fry.

**Black Turban Snail:** Black turban snails are one of the most common snail species on the Pacific coast. Their black shell acts as protection, though they are still eaten by many other tidepool animals.

**Hermit Crab:** If you spot a snail moving at a faster-than-snail speed, you might actually be looking at a hermit crab! These crabs live in empty shells they find around the tidepools in order to protect their soft bodies. They constantly need to find larger shells as their bodies keep growing. You might even see two hermit crabs fighting for the same shell.

**Ochre Sea Star:** Sea stars will hunt limpets, urchins, snails, and any other animal that can't outrun them, opening even the most stubborn shells with their tube feet. These animals help manage the populations of mussels and other animals, clearing space in the tidepools.

**Tidepool Sculpin:** This fish is able to hide from predators thanks to its multicolored spots, allowing it to hunt for food in peace. And if the tidepool doesn't have enough oxygen during low tide, the sculpin can breathe directly from the air!

**Aggregating Anemone:** These anemones not only catch food with their tentacles, but also photosynthesize! Like their relatives the corals, tiny algae called zooxanthellae live inside the aggregating anemone which allow them to get energy even if the tide doesn't bring in enough food.

**Striped Shore Crab:** The striped shore crab is at home both above and below the water. Though it does need to return to the water to wet its gills, this crab can spend up to 70 hours on dry land, moving from pool to pool to scavenge dead animals, graze algae, or hunt snails.

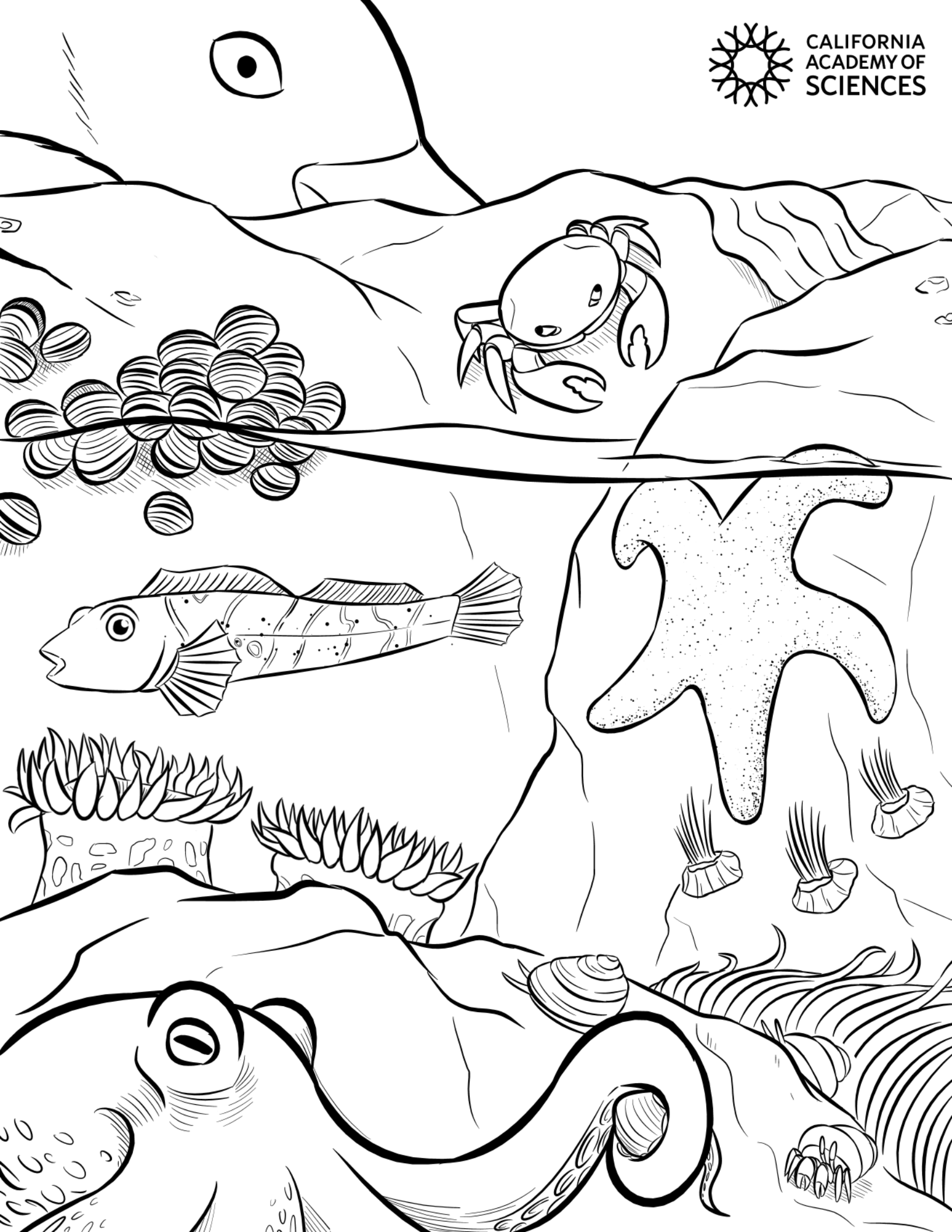
**Octopus:** On rare occasions, octopuses can be found hiding in the tidepools at low tide. They like to eat crabs and snails, and can move for short periods of time out of water to continue their hunt. These shy animals tend to hide if a larger predator is in the area, and are able to slip through cracks in rocks that are as small as their beaks.

**California Mussel:** Found attached to tidepool rocks, California mussels often clump together in large groups. Their hard shell keeps them safe from all but the most determined predators.

**Acorn Barnacle:** Barnacles can't move around like their crustacean cousins: crabs, lobsters and shrimp. Instead, barnacles grow hard shells that are attached to tidepool rocks. They stick their thin feathery legs out of the shell's opening to collect plankton to eat.



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# Criaturas de la Marea

Las mareas de la costa de California están llenas de vida, ambas encima y debajo del agua. Colorea los animales y el medio ambiente para hacer tu marea que es llamativa.

**Gaviota:** Depredador de mareas y restaurantes que están al aire libre, la gaviota es el ave marino más común a lo largo de la costa de California. Son omnívoros y se comen cualquier cosa, incluyendo peces, cangrejos, caracoles, semillas y las ocasionales papas fritas.

**Caracol turbante negra:** Caracoles turbantes negros son unas de las especies de caracoles más comunes en las costa Pacífica. Sus conchas negras actúan como protección pero todavía son comidos por los varios animales de la marea.

**Cangrejo ermitaños:** Si miran un caracol moviéndose a una velocidad más rápida que la de un caracol, es posible que estén viendo un cangrejo ermitaño. Estos cangrejos viven en conchas vacías que encuentran en la marea y las usan para proteger sus cuerpos blandos. Necesitan constantemente encontrar conchas grandes mientras sus cuerpos continúan creciendo. Incluso podrías ver a dos cangrejos ermitaños luchando por la misma concha.

**Estrella de mar ocre:** Estrellas del mar van a cazar lapas, erizos del mar, caracoles, y cualquier animal que no pueden huir de ellos, abriendo hasta las conchas más tercas usando sus pies ambulacrales. Estos animales ayudan a gestionar la población de mejillones y otros animales, abriendo espacio en las mareas.

**Cotido de marea:** Este pez se puede esconder de los depredadores gracias a su manchas multicolores, dejándolos cazar para su comida en paz. Y si la marea no contiene oxígeno suficiente durante la marea baja, este cotido puede respirar directamente del aire.

**Anémonas agregadoras:** Estas anémonas no solo capturan comida con sus tentáculos pero también usan fotosíntesis. Como sus parientes los corales, contienen algas pequeñas llamadas zooxantelas que viven adentro las anémonas agregadoras, y les permiten conseguir energía aunque la marea no trae suficiente comida.

**Cangrejo de costa rayado:** El cangrejo de costa rayado está en casa tanto por encima como por debajo del agua. Aunque necesita volver al agua para mojar sus agallas, este cangrejo puede pasar hasta 70 horas en tierra seca, moviéndose de charco en charco para buscar animales muertos, comiendo algas o cazar caracoles.

**Pulpos:** En ocasiones raras, se pueden encontrar pulpos escondidos en las mareas durante la marea baja. Les gusta comer cangrejos y caracoles, y pueden moverse por cortos periodos de tiempo fuera del agua para continuar su caza. Estos tímidos animales tienden a esconderse si hay un depredador más grande en la área, y se puede deslizarse por las grietas de las rocas que son tan pequeñas como sus picos.

**Mejillón de California:** Encontrados pegados a las piedras de la marea, los mejillones de California se agrupan en grandes grupos. Sus conchas duras los mantienen seguros de todos menos los más decididos depredadores.

**Percebes de bellota:** Percebes no se pueden mover como sus primos crustáceos: cangrejos, langostas y camarones. En vez, percebes crecen conchas duras que se pegan a las piedras de la marea. Sacan sus delgadas patas plumosas afuera de la apertura de la concha para capturar plancton para comer.



# Octopus Crown

California tidepools are home to many different animals, including octopuses. Octopuses are able to camouflage themselves by changing the color and texture of their skin, helping them hide from predators and prey. Create your own octopus crown to stand out from the crowd!

## Materials

Tape  
Print-out templates (page 2 and 3)  
Construction paper  
Crayons or colored pencils

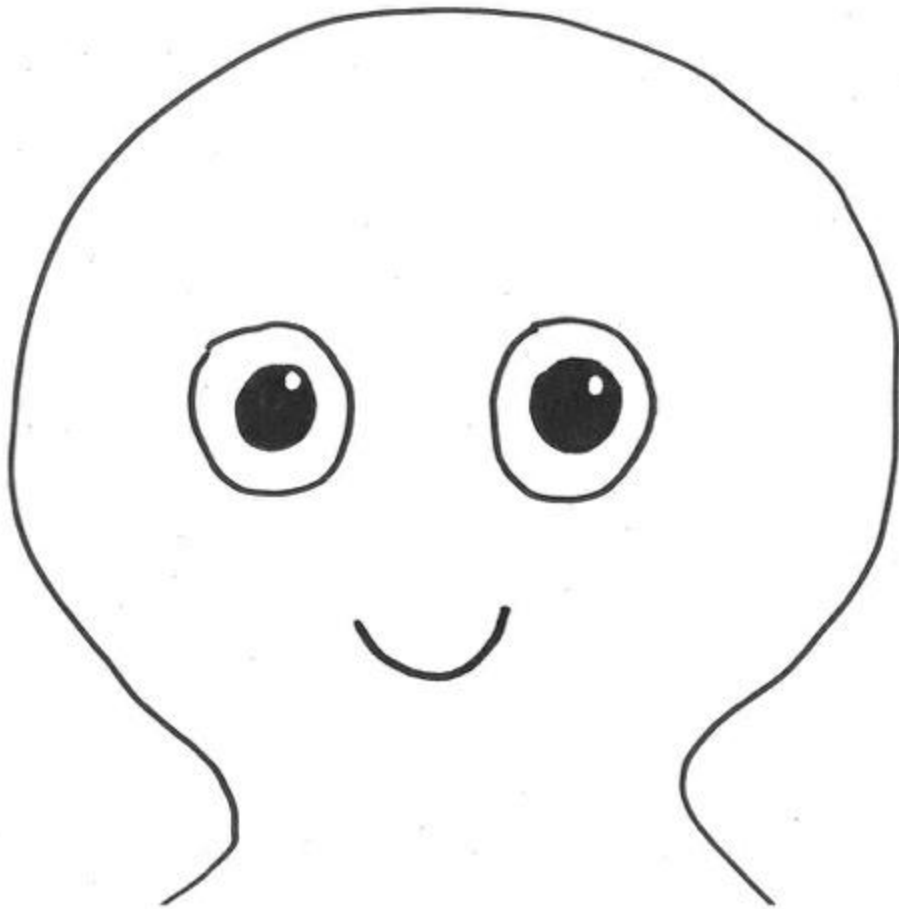


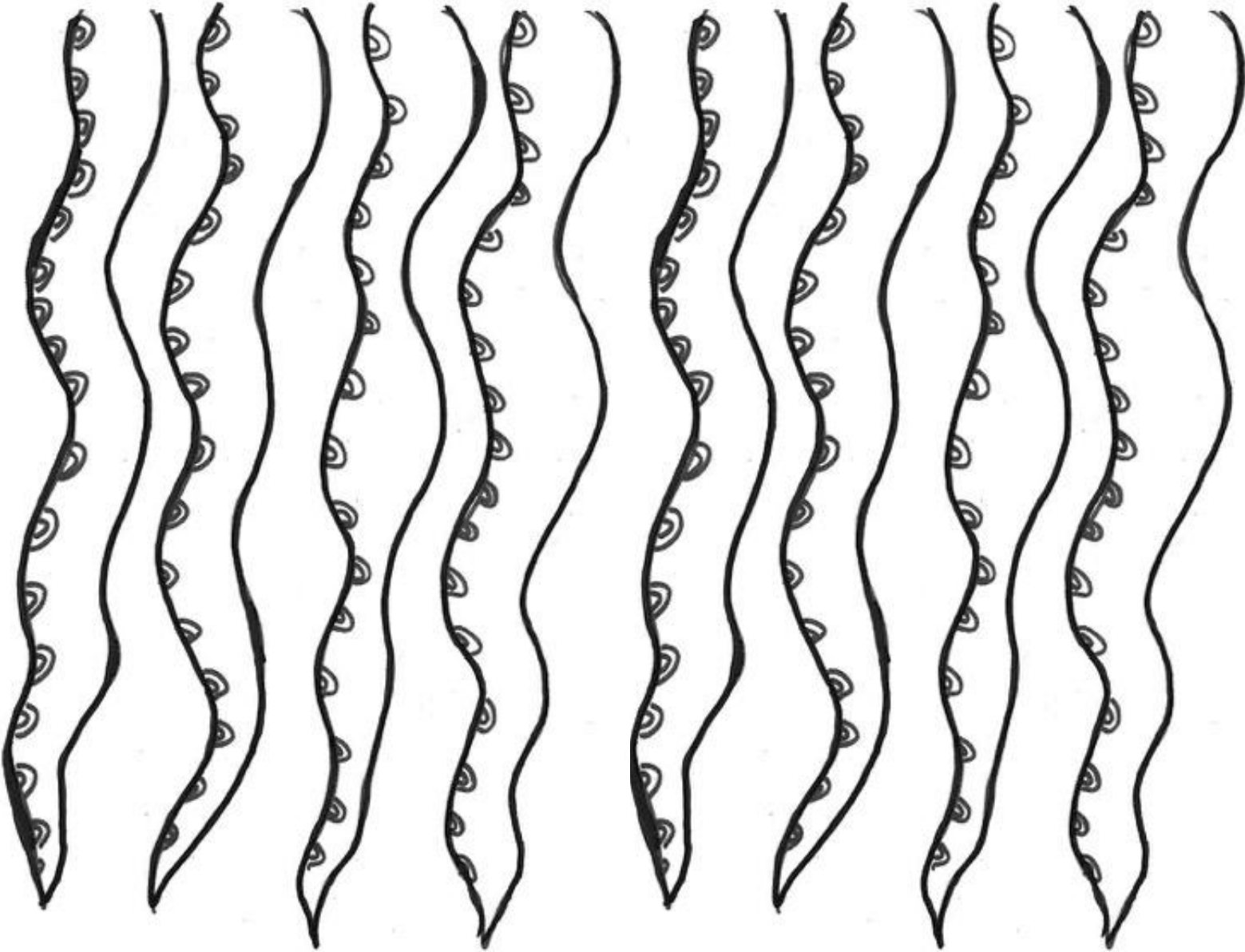
## Directions

1. **Print and cut** one copy of the head template on page 2 and *two* copies of the tentacle template on page 3.
2. **Cut out** the head of the octopus from the template on page 2 and 8 tentacles from the two copies of the template on page 3.
3. **Cut out** two strips of construction paper, long ways, about 2 inches thick.
4. **Color** the strips of paper, the tentacles, and the head of the octopus.
  - a. *Challenge:* Octopus' skin doesn't just change color, but texture too. **Place** coins, sand, or any textured or bumpy surface underneath the octopus' head and tentacles cut outs and then **color** the paper. What happens?
5. **Tape** the head of the octopus and the tentacles onto one of the strips of paper, as seen in the picture to the right. **Tape** the rest of the tentacles to the second strip of paper.
6. **Tape** the two strips of construction paper together to form a circle, making sure it is big enough to fit on top of your head like a crown.











# Color and Cut Kelp Forest

Kelp forests are home to many different animals, large and small. These animals make up the consumers of an intricate food web. Plants like kelp and phytoplankton are the foundation of this food web, turning the Sun's energy into food for themselves and the animals that eat them.

## Materials

Scissors  
Habitat worksheet (page 3)  
Animal cards (page 4)  
Colored pencils  
Tape or glue sticks  
Yarn or string (optional)

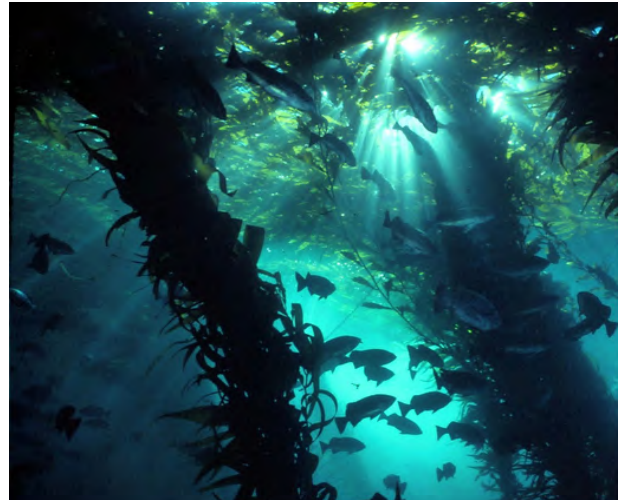
## Directions

1. **Print out** the habitat and animal sheets found on pages 3-4.
2. **Color** the habitat on the worksheet.
3. **Color and cut out** the animals.
4. **Tape or glue** the animals onto the worksheet. Arrange the animals in the kelp forest habitat.
5. **Challenge:** Cut and tape string to connect animals that eat each other or the kelp.



## Habitat Information

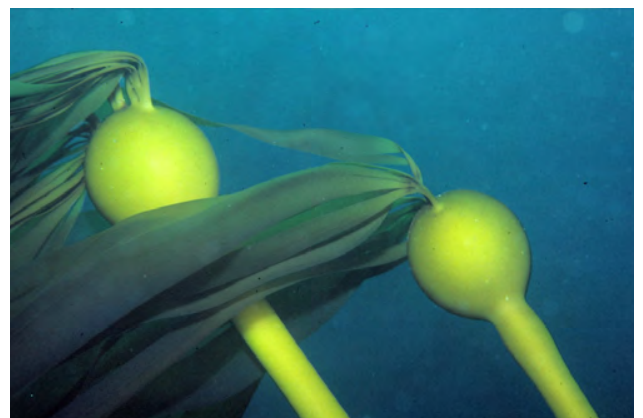
**Kelp forests** are rich underwater habitats alive with diversity. Large seaweed such as bull kelp and giant kelp grow from the seafloor to the surface of the water. Some kelp species reach up to 115 feet tall and grow 10 inches per day! This tall, dense underwater forest provides both food for some animals and shelter for many others.

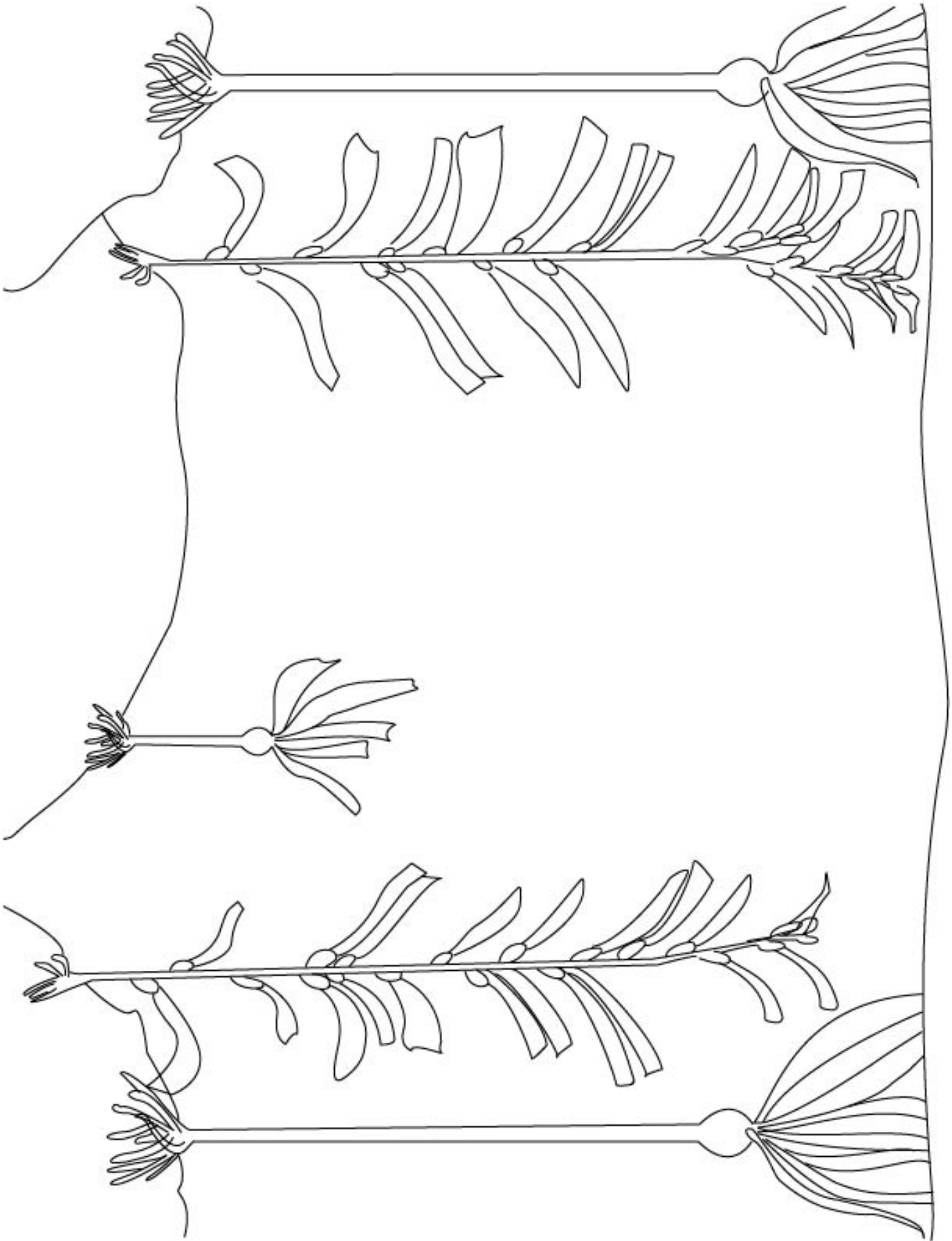


**Predators and prey** are the consumers of the food web, taking energy from the food that they eat, whether it is plants or other animals. Sea otters are an important predator in the kelp forest because they eat sea urchins. Sea urchins' favorite food is kelp, and if there are too many sea urchins eating kelp then the kelp forest would cease to exist.



**Producers**, like plants, kelp, algae, and tiny phytoplankton that capture energy from the Sun and turn it into food stored inside the organism. Without producers creating food from the Sun, the rest of the food web would collapse.







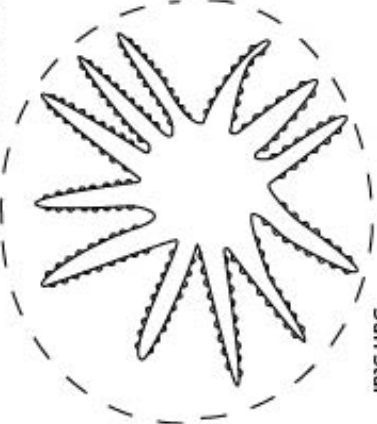
Horned Shark



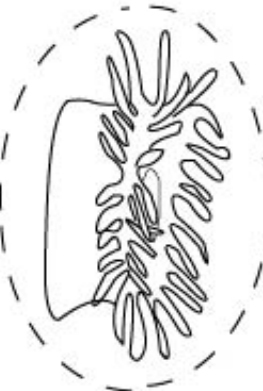
Sea Star



Sun Star



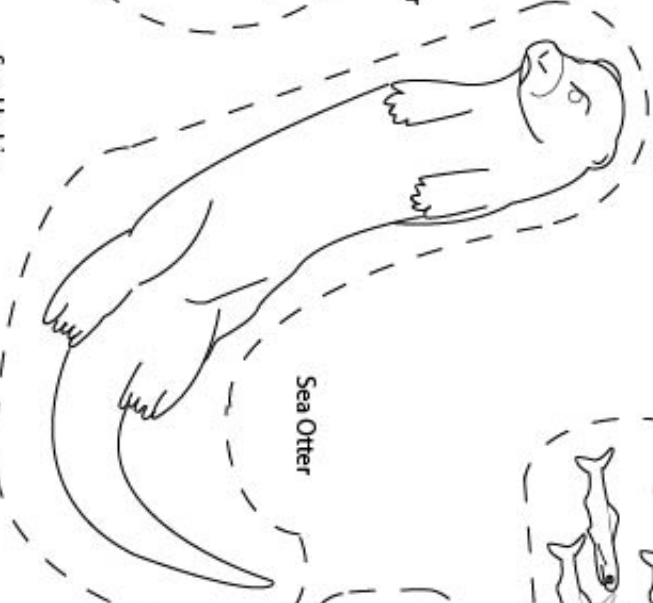
Sea Anemone



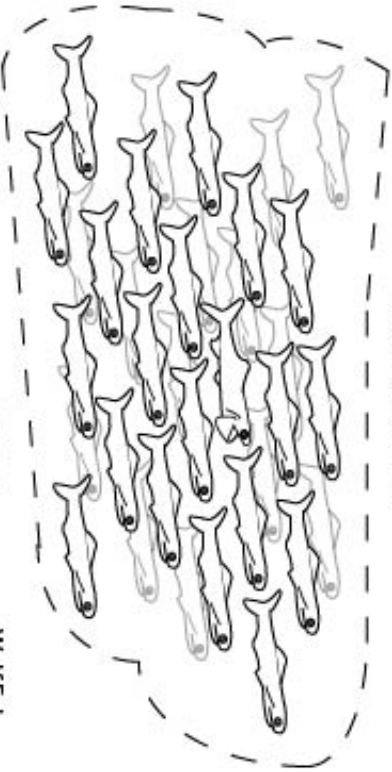
Sea Urchin



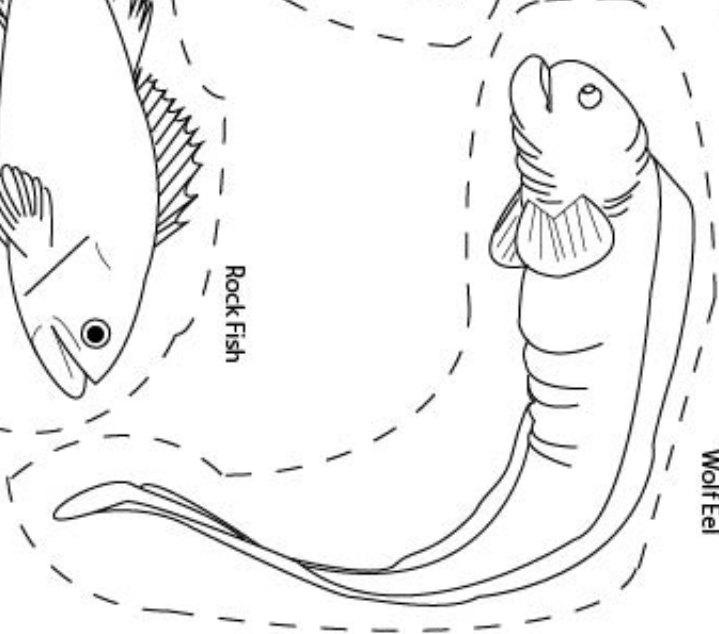
Sea Otter



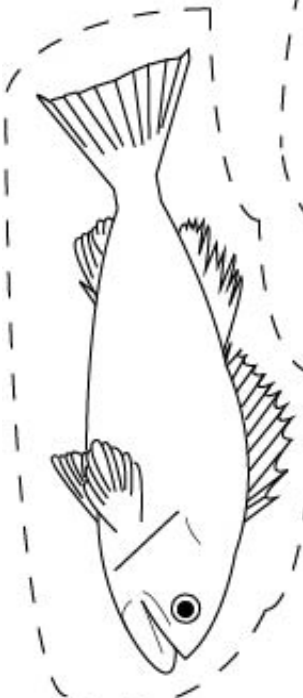
Northern Anchovies



Wolf Eel



Rock Fish





# Colorea y corten el bosque de queipo

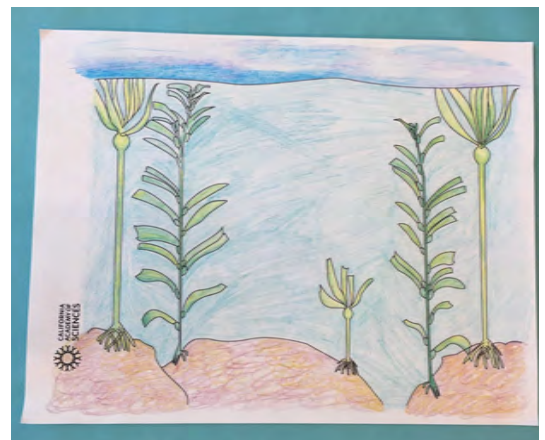
Los bosques de queipo son hogares para varios animales diferentes, grandes y pequeños. Estos animales son los consumidores en esta red alimentaria intrica. Queipo y fitoplancton son la base de esta red alimentaria, cambiando la energía del Sol en comida para ellos mismos y los animales que se alimentan de ellos.

## Materiales

Tijeras  
Hoja de trabajo sobre el hábitat (página 3)  
Tarjetas de animales (página 4)  
Lápices de colores  
Cinta adhesiva o pegamento en barra Hilo o cuerda (opcional)

## Instrucciones

1. **Imprime** las hojas de hábitat y animales que se encuentran en las páginas 3-4.
2. **Colorea** el hábitat en la hoja de trabajo.
3. **Colorea** y corta los animales.
4. **Pega** los animales en la hoja de trabajo. Coloca los animales en el hábitat del bosque de queipo.
5. **Desafío:** Corta y pega una cuerda para conectar los animales que se comen entre sí o el queipo.



## Información del hábitat

**Los bosques de quepo** son hábitats submarinos ricos llenos de diversidad. Grandes algas, como el quepo macho y el quepo gigante, crecen desde el fondo marino hasta la superficie del agua. Algunas especies de quepo alcanzan hasta 115 pies de altura y crecen 10 pulgadas por día. Este alto y denso bosque submarino sirve como comida para algunos animales y refugio para muchos otros.



**Los depredadores y las presas** son los consumidores de la red alimentaria, tomando energía de los alimentos que comen, sean plantas u otros animales. Las nutrias marinas son depredadores importantes en el bosque de quepo porque comen erizos de mar. La comida favorita de los erizos de mar es el quepo, y si hay demasiados erizos comiendo quepo, el bosque del quepo dejaría de existir.

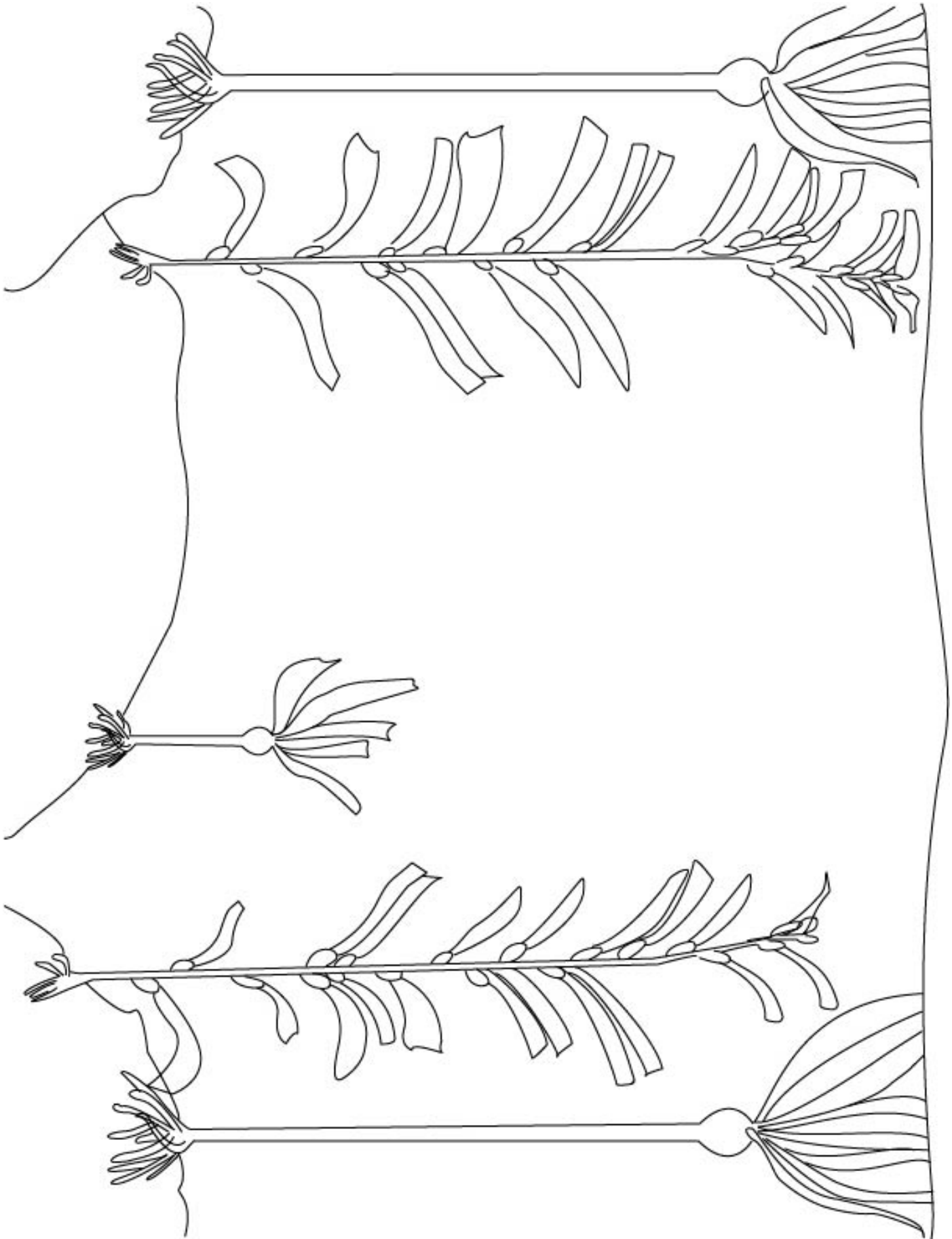


**Productores** son organismos como plantas, el quepo, las algas y el pequeño fitoplancton que capturan la energía del Sol y la convierten en comida que está guardada en el interior del organismo. Sin los productores que crean comida usando el Sol, el resto de la red alimentaria se colapsaría.





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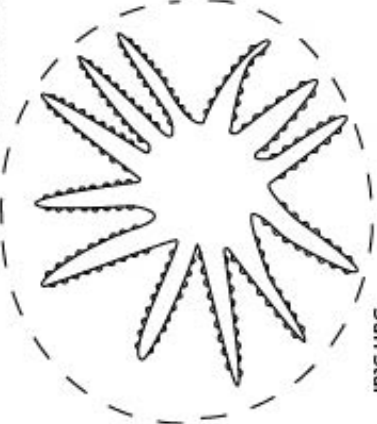
Horned Shark



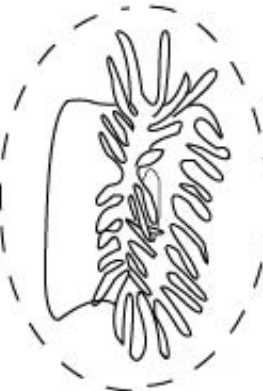
Sea Star



Sun Star



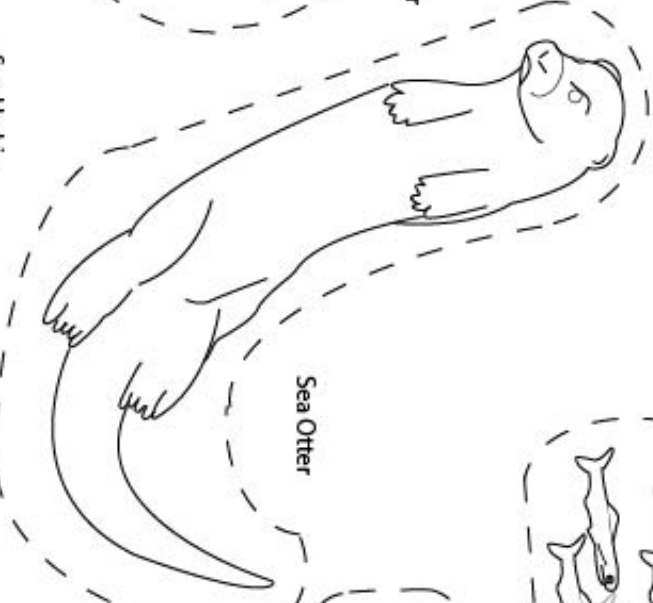
Sea Anemone



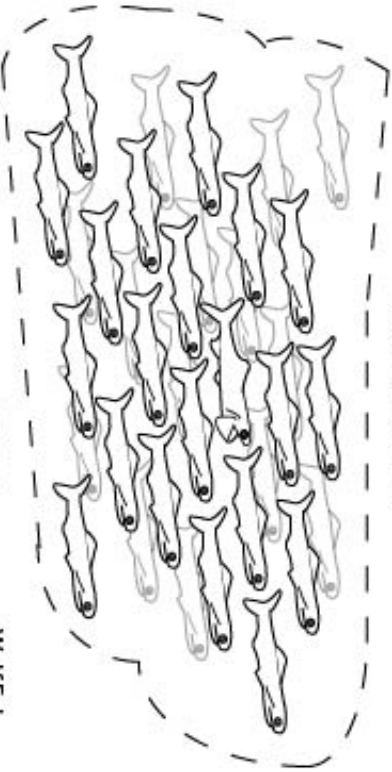
Sea Urchin



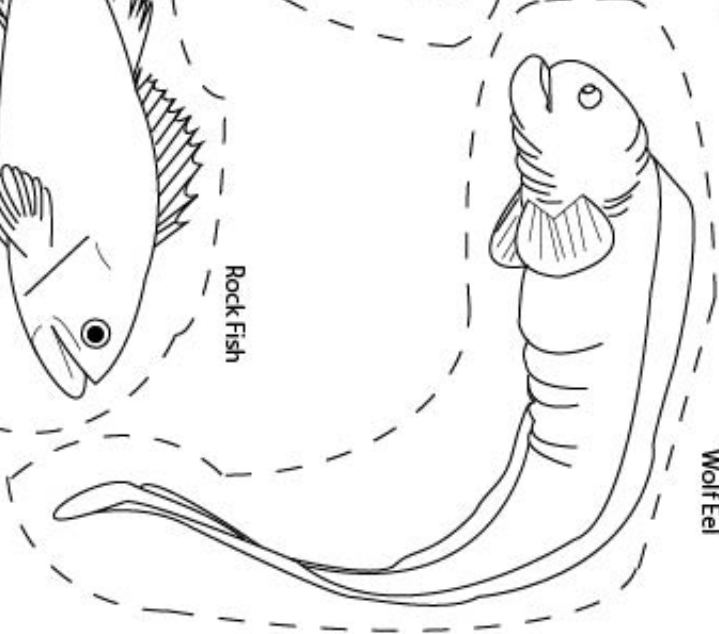
Sea Otter



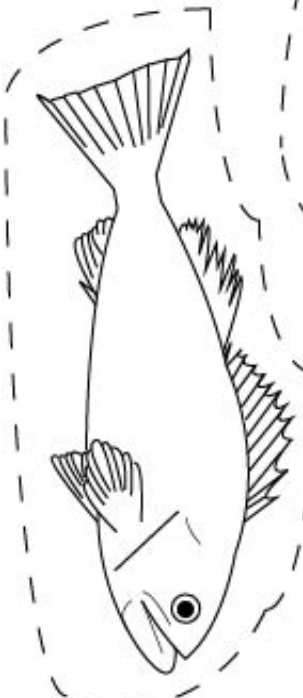
Northern Anchovies



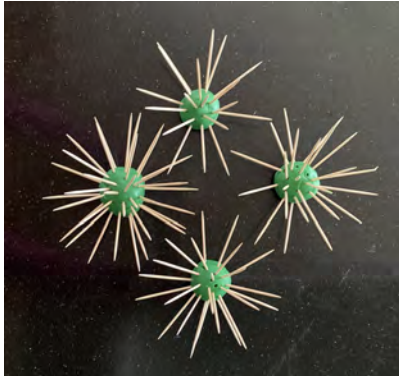
Wolf Eel



Rock Fish







# Sea Urchin and Sea Otter Craft

**Purple sea urchins** of the California coast are spine-covered invertebrates with tube feet that look like suction cups all over their body. If sea urchin populations are not limited by predators like sea otters, they can eat through 30 feet of giant kelp forest in one month.

## Sea urchin materials

Toothpicks

Clay or play dough. A recipe for homemade play dough can be found below.

String, yarn, or floss



**Sea otters** are mammals with very thick fur. While sea otters often dive for their food, they always eat while floating on their backs. To open clams and mussels, sea otters will use stones as tools to help break open their prey. They also enjoy abalones and sea urchins—some sea otters love eating purple sea urchins so much that it will actually dye their skeletons slightly purple! Otters play a key role in keeping urchin populations in check, which keeps kelp forests healthy.

## Sea otter materials

Glue

Scissors

Sea otter template

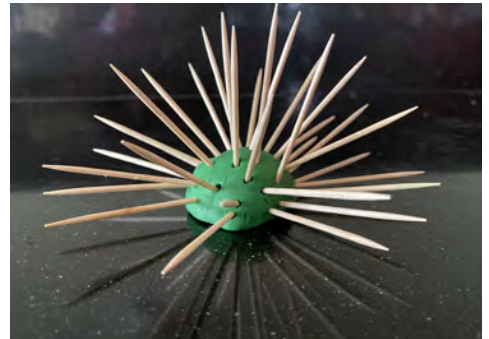
Paper lunch bag

Crayons or colored pencils

Print-out template (page 3)

## Sea urchin directions

1. **Form** a ball with your clay or play dough.
2. Use the yarn, floss, or string to **cut** the clay ball in half.
3. **Place** the clay flat side down so it forms a dome.
4. **Push** toothpicks into the dome so they don't fall out.
5. Your sea urchin is ready to be enjoyed by your sea otter puppet.



## Sea otter puppet directions

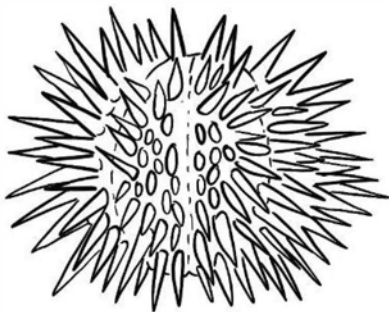
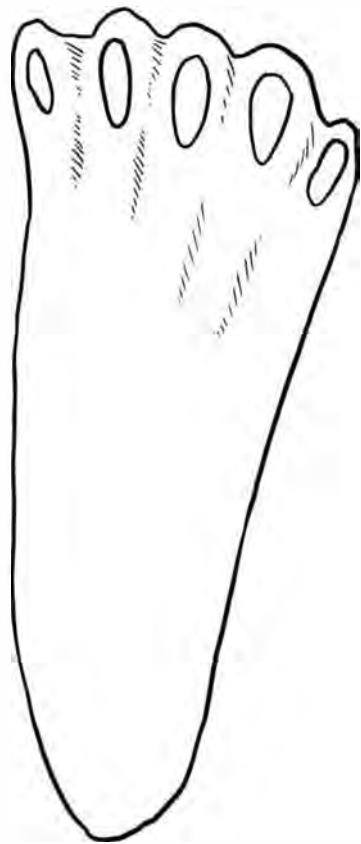
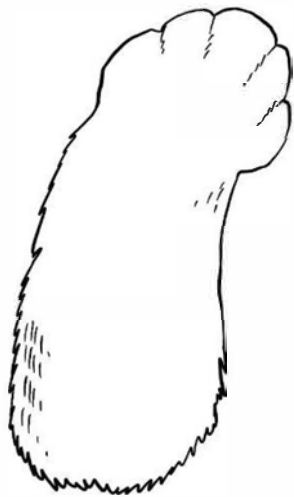
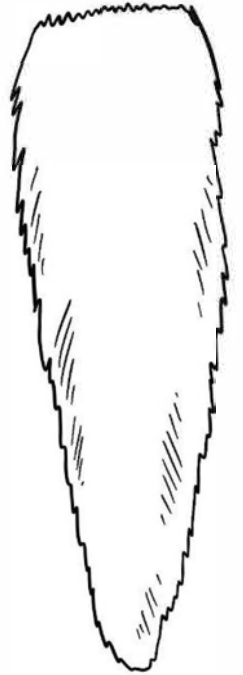
1. **Print** out the template on page 3.
2. **Color** the sea otter and urchin any way you'd like.
3. **Cut** out all the pieces.
4. **Glue** the otter's face on the flap at the bottom of the bag. Then **glue** on the urchin, front and back paws, and tail.
5. Your puppet is ready for play!



## Play dough recipe

Adult supervision and assistance required.

1. Combine 1 cup flour, 2 teaspoons cream of tartar, and  $\frac{1}{3}$  cup salt.
2. Add 1 cup water and 1 tablespoon cooking oil. Stir well.
3. Add food coloring of your choice.
4. Heat mixture on medium-low, stirring constantly.
5. Remove from heat when the mixture solidifies.
6. Put the play dough on wax paper and let it cool for at least 30 minutes.
7. Store in an air-tight container in the fridge for up to 2 months.



# Seaweed Salad Recipe



Seaweed is a type of algae, which is a general term for aquatic plants that turn the Sun's energy into their food—also known as photosynthesis). Land plants use it, too, but unlike trees, bushes, and other flowering plants, algae do not have true roots, stems, and leaves. Importantly, algae change carbon dioxide into oxygen and are the foundation for many habitats in the ocean. These Pacific coast habitats are the most extensive in the world, supporting millions of organisms representing some 1,000 species. Explore seaweed by making and enjoying this healthy and delicious salad. Wakame is a seaweed available in a variety of grocery stores.

## Ingredients (serves 2-4)

Dried wakame seaweed:  $\frac{3}{4}$  ounce (20 grams)

Sesame seeds: 1 tbsp

Rice vinegar: 3 tbsp

Soy sauce: 1-2 tbsp

Sugar:  $\frac{1}{2}$ -1 tbsp

Goldfish Crackers (optional)

## Directions

1. **Soak** the dried seaweed in cold water for 20 minutes or until soft. The seaweed will expand as it absorbs the water.



2. **Mix** soy sauce, rice vinegar, and sugar together well. **Taste** and adjust soy sauce and sugar. This is your dressing.



3. **Rinse** and drain the wakame.



4. **Pour** the dressing over the seaweed and mix.



5. **Sprinkle** sesame seeds over the salad, chill, and serve.



6. **Optional:** Add goldfish crackers for extra crunch

7. Enjoy!





# Egg Carton Hermit Crab

While most crabs have hard exoskeletons to protect themselves from predators, hermit crabs have soft, curled abdomens. To keep their soft body safe, hermit crabs rely on hollow objects, like empty snail shells, for shelter.

Build a home for a hermit crab with an egg carton, cotton ball, and your imagination!

## Materials

Glue  
1 egg carton  
1 cotton ball  
Markers or paint  
Googly eyes  
Pipe cleaners  
Scissors

## Directions

1. **Cut out** 1 cup from an egg carton, then **cut** out a semicircle on one side. This will be where your hermit crab's head will poke out.
  - a. No egg carton? No problem! Use the bottom of a paper cup instead or use a paper tube and fold one end so that the "top" of the hermit crab's shell is closed.



2. **Glue** a cotton ball to the inside of the egg carton cup so that most of the cotton ball pokes out from the semicircle. This will be the head of your hermit crab.
3. **Cut** pipe cleaners so you have six, 2-3 inch pieces. **Glue** 3 pipe cleaners on each side of the cotton ball on the inside of the egg carton. **Bend** the end of the pipe cleaner to make an upside-down U shape. These are your hermit crab's legs. Like all crabs, hermit crabs have five pairs of legs. Hermit crabs use the first pair of legs as pincers, and the second and third pairs to walk around. Their shorter fourth and fifth pairs of legs are tucked away inside their shell, helping hold onto their mobile home.
4. **Color** your cotton ball "head" and egg carton "shell" with markers or paint. Most hermit crabs depend on empty snail shells to protect their soft bodies. What color shell will your hermit crab have?
5. **Glue** a pair of googly eyes to the front of the cotton ball. Your hermit crab is complete!
6. *Optional:* Snail shells come in all kinds of shapes, colors, and sizes. Add a second egg carton cup to make an extra-tall shell for your hermit crab, or use craft supplies to add a barnacle hitchhiker. You can even add some craft moss to act as algae growing on the shell! Use the image below as inspiration, and enjoy your new hermit crab!



# Cangrejo ermitaño de cartón de huevos



Mientras la mayoría de cangrejos tienen un exoesqueleto duro para protegerse de depredadores, los cangrejos ermitaños tienen un abdomen suave y rizado. Para mantener sus cuerpos suaves protegidos, los cangrejos ermitaños dependen de objetos vacíos como las conchas de caracoles que están vacíos para refugio. Construye un hogar para un cangrejo ermitaño usando un cartón de huevos, una bola de algodón, y tu imaginación!

## Materiales

Tijeras  
Pegamento  
1 cartón de huevos  
1 bola de algodón  
Marcadores o pintura  
ojos de cotillón  
Limpiapipas

## Instrucciones

1. **Corta** una copa de cartón de huevos y después corta un semicírculo a un lado. Este va a ser donde la cabeza del cangrejo ermitaño saca la cabeza.
  - a. ¿No tienen un cartón de huevos? ¡No hay problema! Usen el fondo de un vaso de papel o en vez usen un tubo de papel y doblen un lado y sellarlo para que la parte superior de la concha esté cerrada.





1. **Pega** una bola de algodón en el interior de la copa del cartón de huevos de manera que la mayoría de la bola de algodón sale del semicírculo. Esto va a ser la cabeza de tu cangrejo de ermitaño.
2. **Corta** los limpiapipas de manera que tengas seis pedazos de 2-3 pulgadas. **Pega** 3 limpiapipas a cada lado de la bola de algodón en el interior del cartón de huevos. **Dobla** el extremo del limpiapipas para darle forma de 'U' invertida. Estas son las patas de tu cangrejo ermitaño. Como cangrejos, los cangrejos ermitaños tienen cinco pares de patas. Los cangrejos ermitaños usan el primer par de patas como pinzas, y el segundo y tercer par para caminar. El cuarto y el quinto par de patas son más cortos y están escondidos en el interior de la concha y les ayudan a agarrar su casa móvil.
3. **Colorea** la "cabeza" de algodón y la concha de cartón de huevos con marcadores o pintura. La mayoría de cangrejos ermitaños dependen en conchas de caracoles vacíos para proteger su cuerpos suaves. Que color de concha va a tener tu cangrejo de ermitaño?
4. **Pega** un par de ojos de cotillón en frente de la bola de algodón. Esto completa tu cangrejo ermitaño.



5. *Opcional:* Las conchas de caracoles vienen de todos tipos de formas, colores, y tamaños. Agrega una segunda copa de cartón de huevos para hacer una concha extra alta para tu cangrejo ermitaño o usa tus materiales para agregar un percebe de autostopista. Puedes añadir musgo artesano para que actúe como alga que crece en la concha! Usa la imagen a la derecha como inspiración, y disfruta tu nuevo cangrejo ermitaño.



# My Special Scallop



When you think of seashells, one of the first shapes that comes to mind might be a scallop. Scallops are a type of animal called a mollusc, and are related to clams, mussels, and oysters. The two halves of a scallop's shell are hinged together, allowing them to use their muscle to snap the top and bottom shells open and shut, propelling themselves through the water. Create your own colorful scallop shell out of paper plates

## Materials

Glue  
Scissors  
2 paper plates with ridges  
Pencils or crayons  
Scotch tape  
Cotton balls



## Directions

1. **Cut** a small triangle out of each side of both paper plates, as pictured here, to create 2 scallop shells. *Tip:* When cutting the second shell, you can lay the already cut shell on top of the second plate and trace the cuts.
2. **Color** both sides of each scallop shell. Scallop shells come in a variety of colors, from grays and browns to purples and pinks, so pick your favorite!
3. **Glue** 5 cotton balls on the inside of one of the shells with the curve of the plate facing up. These make the muscle and organs of the scallop, hiding inside its protective shell.
4. **Place a piece of tape** on the inside of the bottom shell hinge and place the second shell, curved side down, on top to connect the 2 shell pieces together.



*Shell photo credit: Gerald and Buff Corsi © California Academy of Sciences*