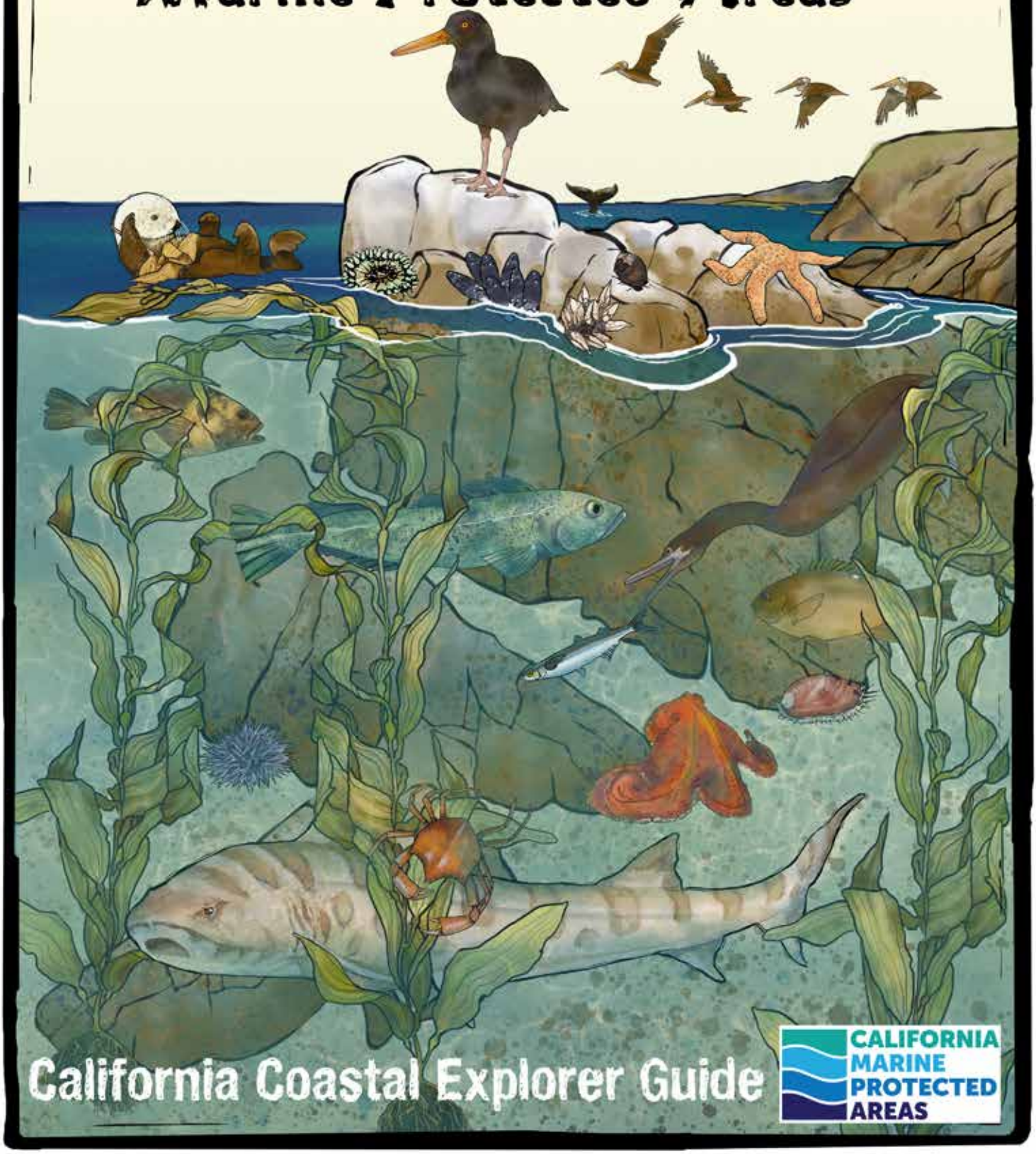
DISCOVER
Marine Protected Areas

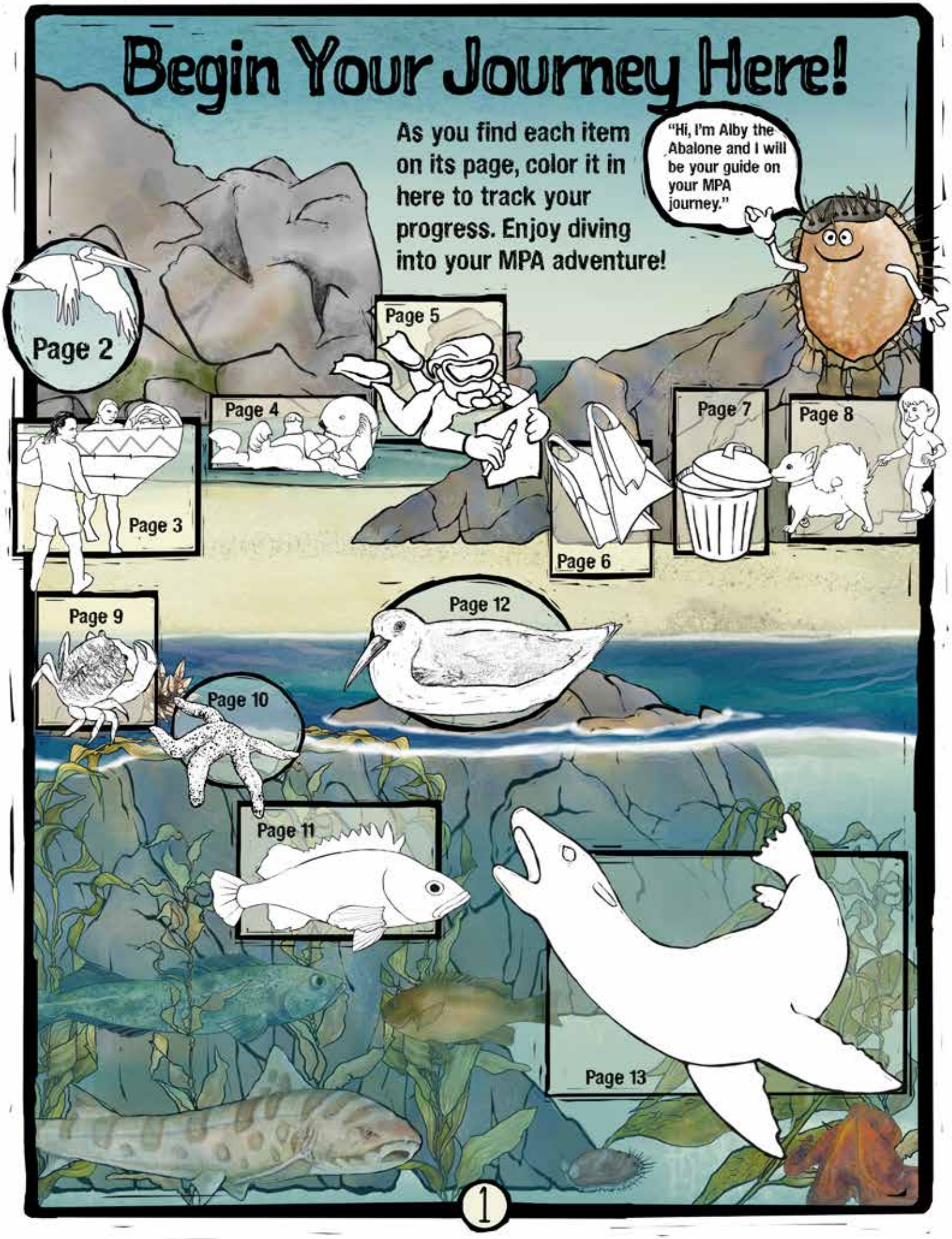


California Coastal Explorer Guide

CALIFORNIA MARINE PROTECTED AREAS

Begin Your Journey Here!

As you find each item on its page, color it in here to track your progress. Enjoy diving into your MPA adventure!



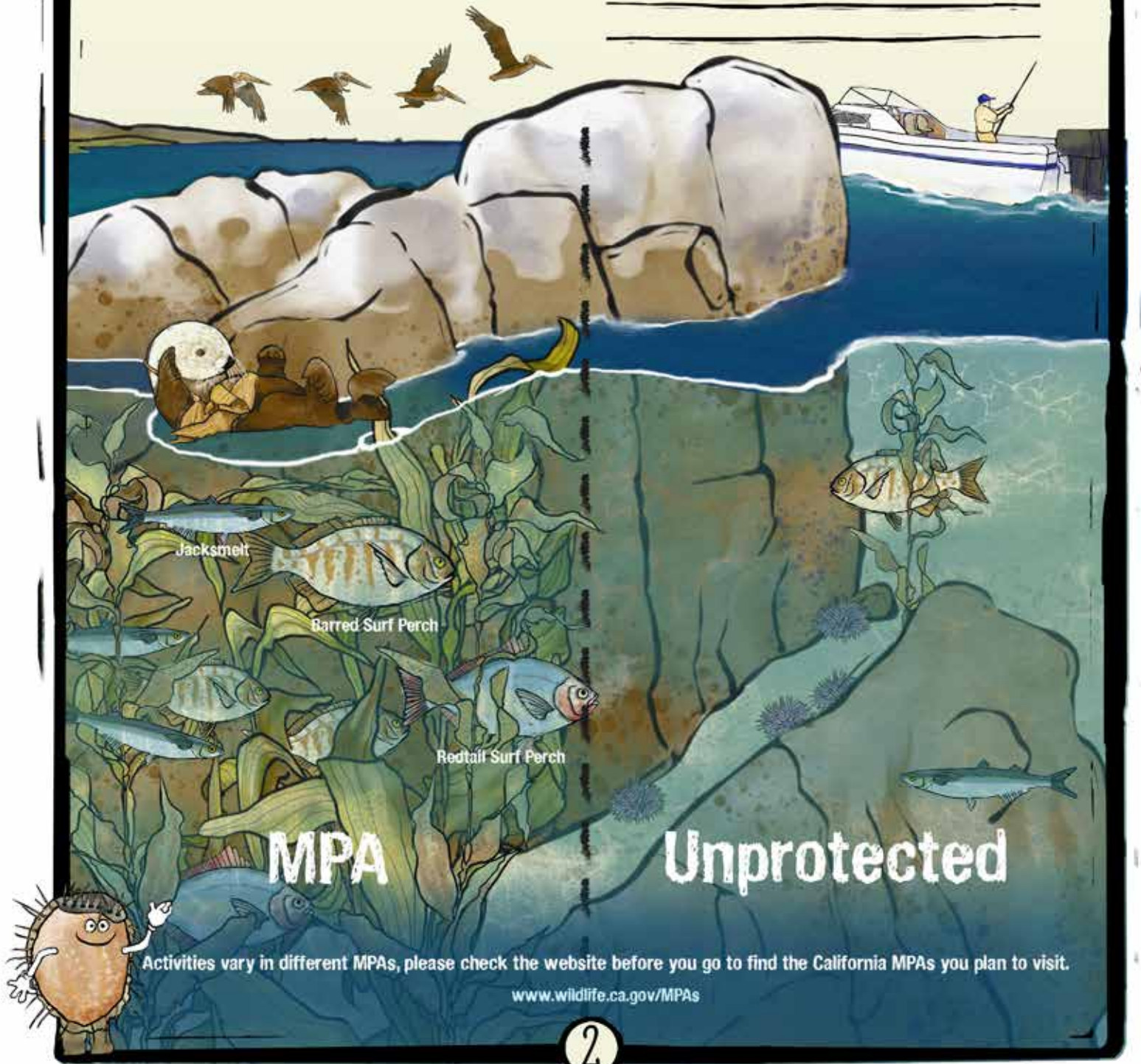
MPAs are *Like* Underwater Parks

MPAs protect fish, invertebrates, plants, algae, and entire ecosystems, which in turn protect humans.

How do MPAs benefit humans?

Activity: Circle three differences between the unprotected area and the MPA.

How do you predict the ocean will look when you are an adult as a result of MPA protection?



Activities vary in different MPAs, please check the website before you go to find the California MPAs you plan to visit.

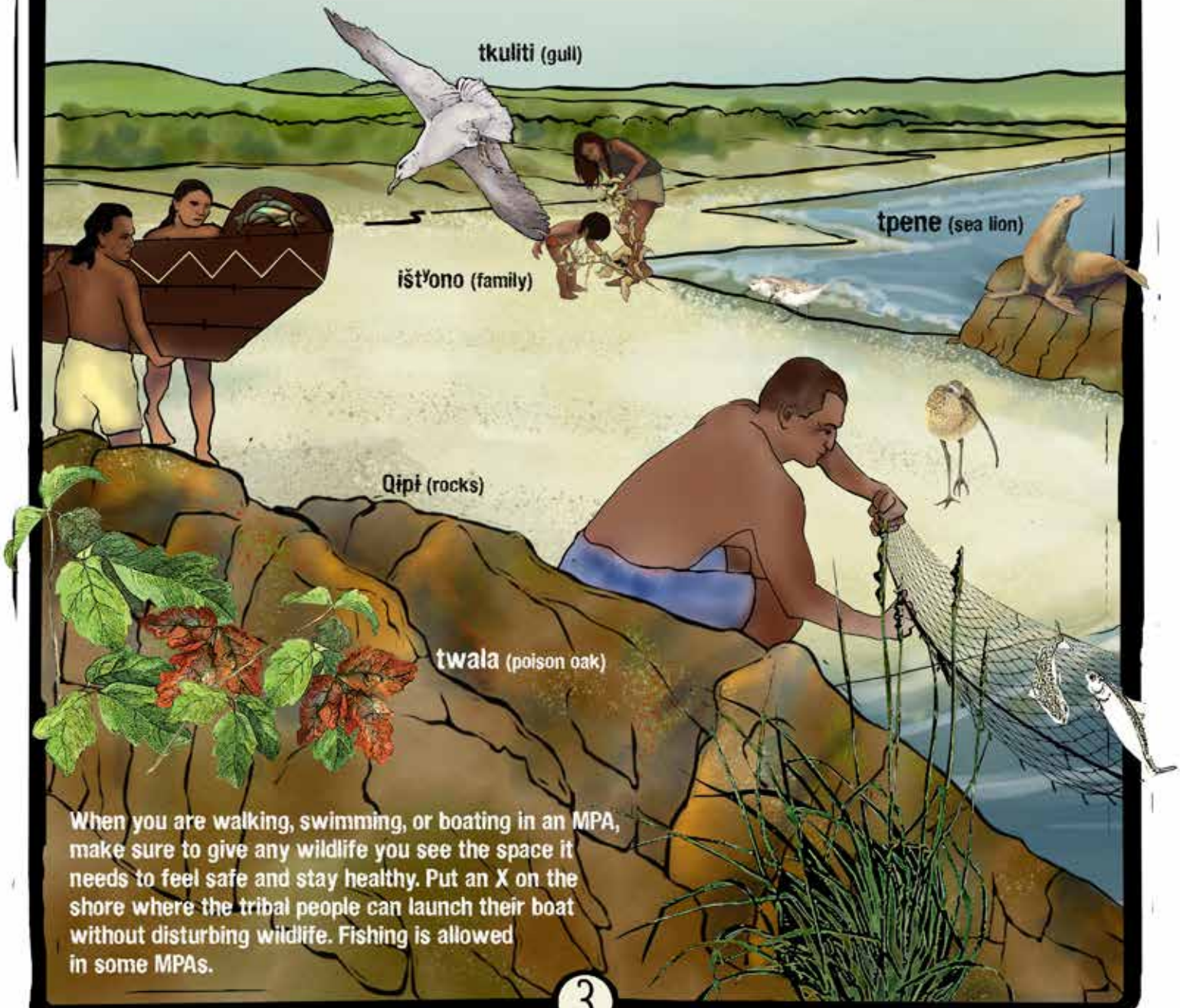
www.wildlife.ca.gov/MPAs

Connecting Cultures, Past,

Tribal Cultures

Tribal peoples across the state have had a close relationship with California's coastline for thousands of years.

They have gathered food, hunted, fished, created tools, clothing, and artwork from the resources that the ocean and other coastal habitats provide. They have also taken care to conserve those resources. Both practices continue today.



When you are walking, swimming, or boating in an MPA, make sure to give any wildlife you see the space it needs to feel safe and stay healthy. Put an X on the shore where the tribal people can launch their boat without disturbing wildlife. Fishing is allowed in some MPAs.

Present, and Future

Caring for the Coast

Keep Today's MPAs Healthy for Tomorrow

Before you visit any MPA, check to see what activities, such as fishing, boating, or swimming, are allowed there.
www.wildlife.ca.gov/MPAs

Look for the words in the language of the yak titʋu titʋu yak tilhini - Northern Chumash of San Luis Obispo County and region.

spasini (ocean)

NO Dogs

tška? (fish)

At Home Activity:
Create a poster that shows people how to help protect California's MPAs. Upload a picture of your poster when you download your certificate. See page 14 for website.

Dive into Your MPA

Scientists count fish in order to estimate fish populations. Imagine that you are a marine biologist or citizen scientist and record the number of fish you see.

How Many Fish?

Calico Rockfish

Batray

Jacksmelt

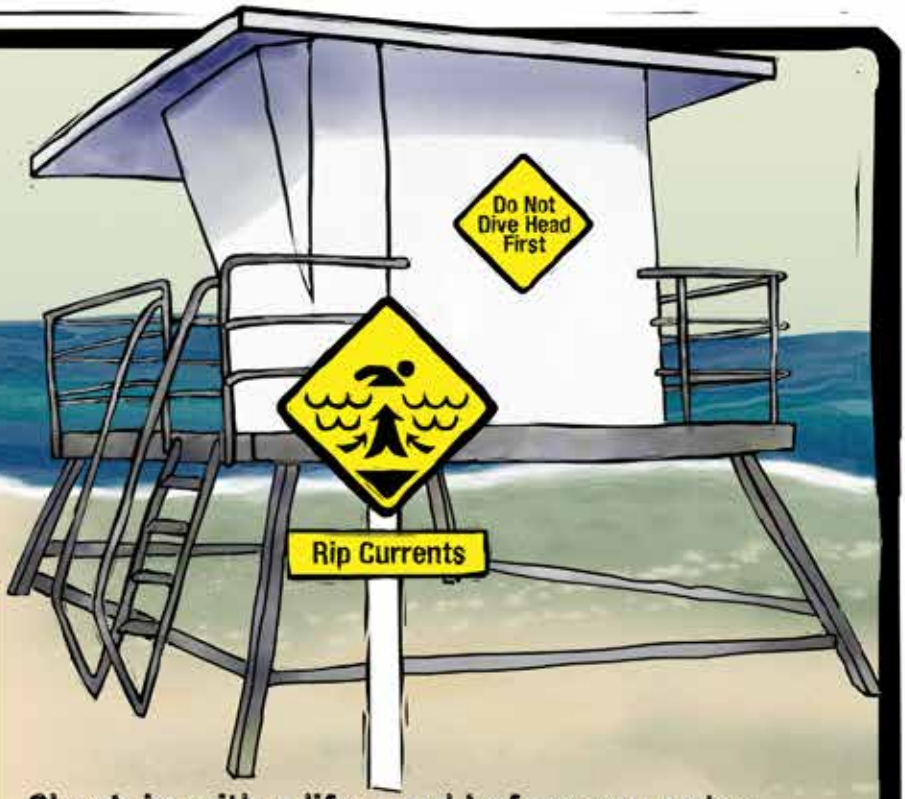
Barred Surfperch

California Halibut

California Lingcod

Calico Rockfish 1–Batray 1–Jacksmelt 3
Barred Surfperch 2–California Halibut 2–California Lingcod 2

Seaside Safety



If you get caught in a rip current, don't fight it. Swim parallel to the beach, then to shore. If you can't escape, float and call out for help.

Check in with a lifeguard before you enter the water and swim where they can see you.

- Learn how to swim.
- Always swim with a buddy.
- Swim near a lifeguard when possible.
- Obey all instructions from lifeguards.
- Learn rip current safety.
- Enter the water feet first.

Find out where to learn to swim or participate in a Junior Lifeguard program in a pool or at the beach.

Take a class and learn how to swim
www.redcross.org/take-a-class
Find a Junior Lifeguard program www.cslsa.org

Write the number of each piece of safety equipment where it should go. Then, color the girl.

Water Connects Me to the Sea

Stash the Trash

Draw a line from each item to where it belongs. Properly disposing of waste helps protect our MPAs.
BONUS: Which item would you cut up to keep wildlife safe?

How long do you think each of these items take to break down? Write your guesses here.

1 _____
2 _____
3 _____
4 _____
5 _____
6 _____

Track Your Trash

For one day track the trash you throw away (plastic, cans, food, etc...). Think about how you can create less trash. Maybe you could pack your lunch with reusable containers or buy items with recyclable packaging.

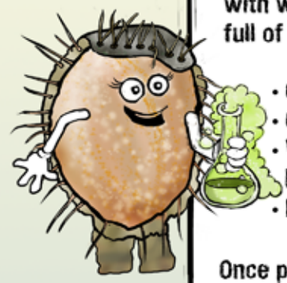
Be the Pollution Solution

Everyone lives in a watershed. A watershed is an area of land where everything that lands on the ground drains into one body of water.

Pollution can drain into MPAs, making the water dirty and harming wildlife.

Circle things that might pollute the watershed.

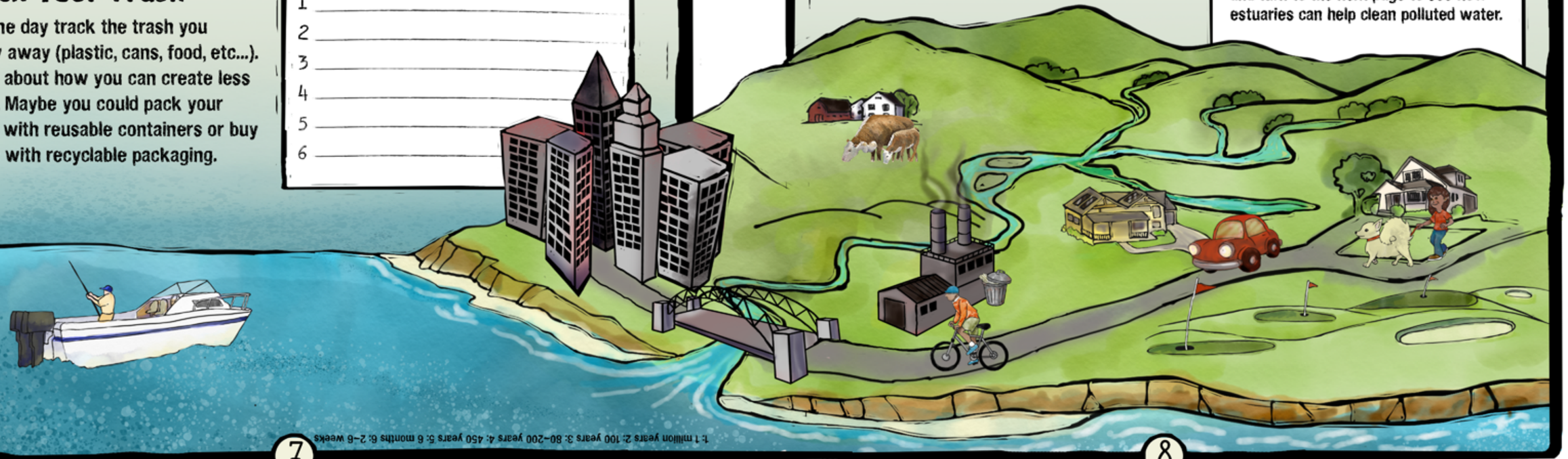
Pick one of them and think about how it could be improved to protect MPAs.



Create your mini MPA by filling a cup with water. Imagine your watershed is full of pollution. Add...

- Oats = trash
- Cocoa or cinnamon = oil
- Vinegar or food coloring = hazardous waste
- Raisins or sprinkles = pet waste

Once pollution ends up in the water, it is hard to remove. Keep your mini MPA and turn to the next page to see how estuaries can help clean polluted water.



1: 1 million years 2: 100 years 3: 80–200 years 4: 450 years 5: 6 months 6: 2–6 weeks

Freshwater Meets the Salty Sea

An estuary is a place where saltwater and freshwater mix. Many of the fish that live in MPAs start their lives in estuaries.

Become a water droplet and move down the watershed through each habitat as you head toward the sea.

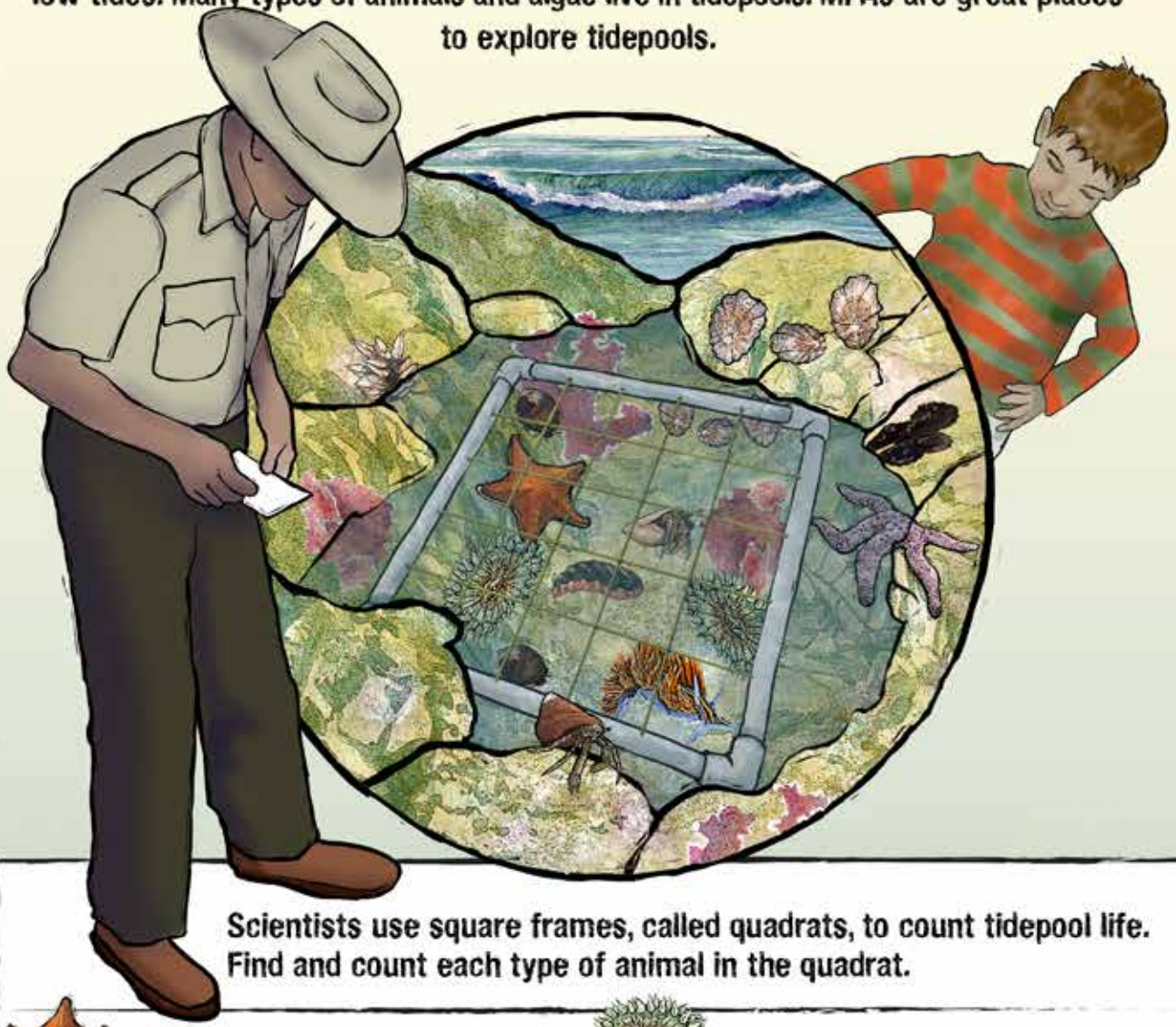
1. Upland Creek
2. Salt Marsh
3. Mudflats
4. Eelgrass Beds
5. Bay

An estuary acts like a giant sponge and filters out pollutants. You can experiment with this at home using the mini-MPA you created on the previous page.

Put a sponge in the bottom of a clear container. This is your estuary! Now, pour your mini-MPA onto the sponge. The water that reaches the bottom of the container is what would end up in the ocean. What do you notice about the water in the bottom of the container compared to what the sponge absorbed?
Is the water cleaner or dirtier than before?

Be a Tidepool Detective

Tidepools are areas along rocky shores where seawater becomes trapped during low tides. Many types of animals and algae live in tidepools. MPAs are great places to explore tidepools.



Scientists use square frames, called quadrats, to count tidepool life. Find and count each type of animal in the quadrat.

Bat Star

Nudibranch

Chiton

Turban Snail

Anemone

Limpets

Hermit Crab

Corraline Algae

Bat Star 1, Nudibranch 1, Chiton 1, Turban Snail 2, anemone 2, Limpets 3, Hermit Crab 1, Corraline Algae 2

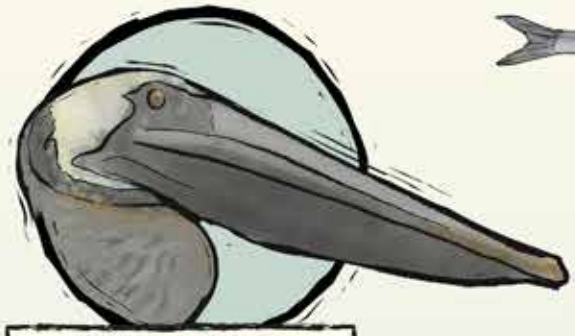
Tidepool Tips

—Look, don't touch. —Leave animals, algae, rocks, and shells in their tidepool homes.
—Walk carefully to avoid crushing fragile life.

MPAs Feature Feathered Friends

And their dinner!

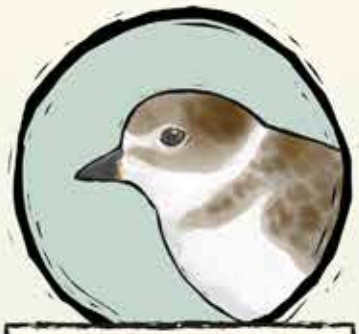
MPAs benefit birds by protecting the underwater habitat where their food grows and lives. Draw lines to connect each bird with the food item that they eat.



Brown Pelican

1 Anchovy

2 Kelp Fly

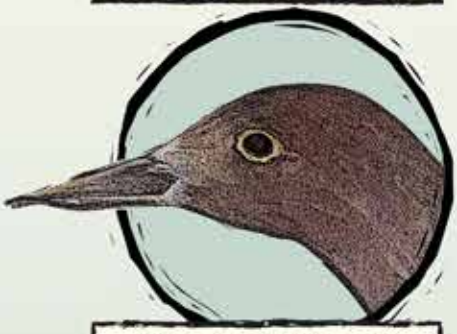


Snowy Plover

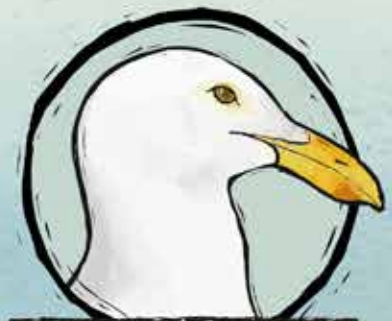
3 Sardine

Black Oystercatcher

4 Mussels



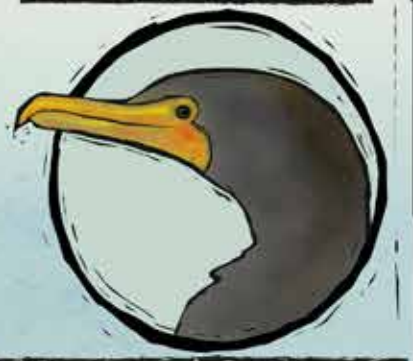
Pigeon Guillemot



Western Gull

5 Juvenile Rockfish

6 Lined Shore Crab



Double-crested Cormorant

1. Brown Pelican 2. Snowy Plover 3. Double-crested Cormorant 4. Black Oystercatcher 5. Pigeon Guillemot 6. Western Gull

How do MPAs benefit seabirds and shorebirds? Hint: Think about their food.

Please don't feed wildlife. Wild animals need to find their food and feed themselves to survive.

Be Seabird and Shorebird

Seabirds and shorebirds nest on rocks, cliffs, and beaches. Watch where you step and keep your distance. If a bird looks at you, you're too close!

S tay back from cliffs and rocks.

A lways leash your pet.

F eed yourself, not wildlife.

E njoy seabirds from afar.

Please help me find the nests! Circle the ones you see.

What are three actions you can take to protect seabirds and shorebirds?

Meet the Mammals of the Sea

Marine mammals like me love MPAs because there's more of what we like to eat!

Unscramble the names of these animals.

1. aborhr lase _ _ _ _ _ _ _ _ _ _
2. yagr lehaw _ _ _ _ _ _ _ _ _ _
3. esa toret _ _ _ _ _ _ _ _ _ _
4. rbahro siporpoe _ _ _ _ _ _ _ _ _ _ _ _ _ _
5. esa nloi _ _ _ _ _ _ _ _ _ _

Blubber Gloves

Feel how blubber (thick layer of fat under the skin) helps marine mammals stay warm in cold water!

Items needed: A big bowl of ice water, two plastic baggies, and vegetable shortening.

1. Fill one bag with enough shortening to thickly coat all sides.
2. Turn the second bag inside-out and insert it into first bag. Zip the tops together.
3. Place your hand in the ice water and note how cold it feels.
4. Using your other hand, place it in the blubber glove and then in the ice water.

The water should feel cool, but not as cold as without the blubber glove. The shortening acts like blubber in marine mammals. Blubber insulates marine mammals from the cold ocean.

1. Harbor Seal 2. Gray Whale 3. Sea Otter 4. Harbor Porpoise 5. Sea Lion

Be an MPA Steward

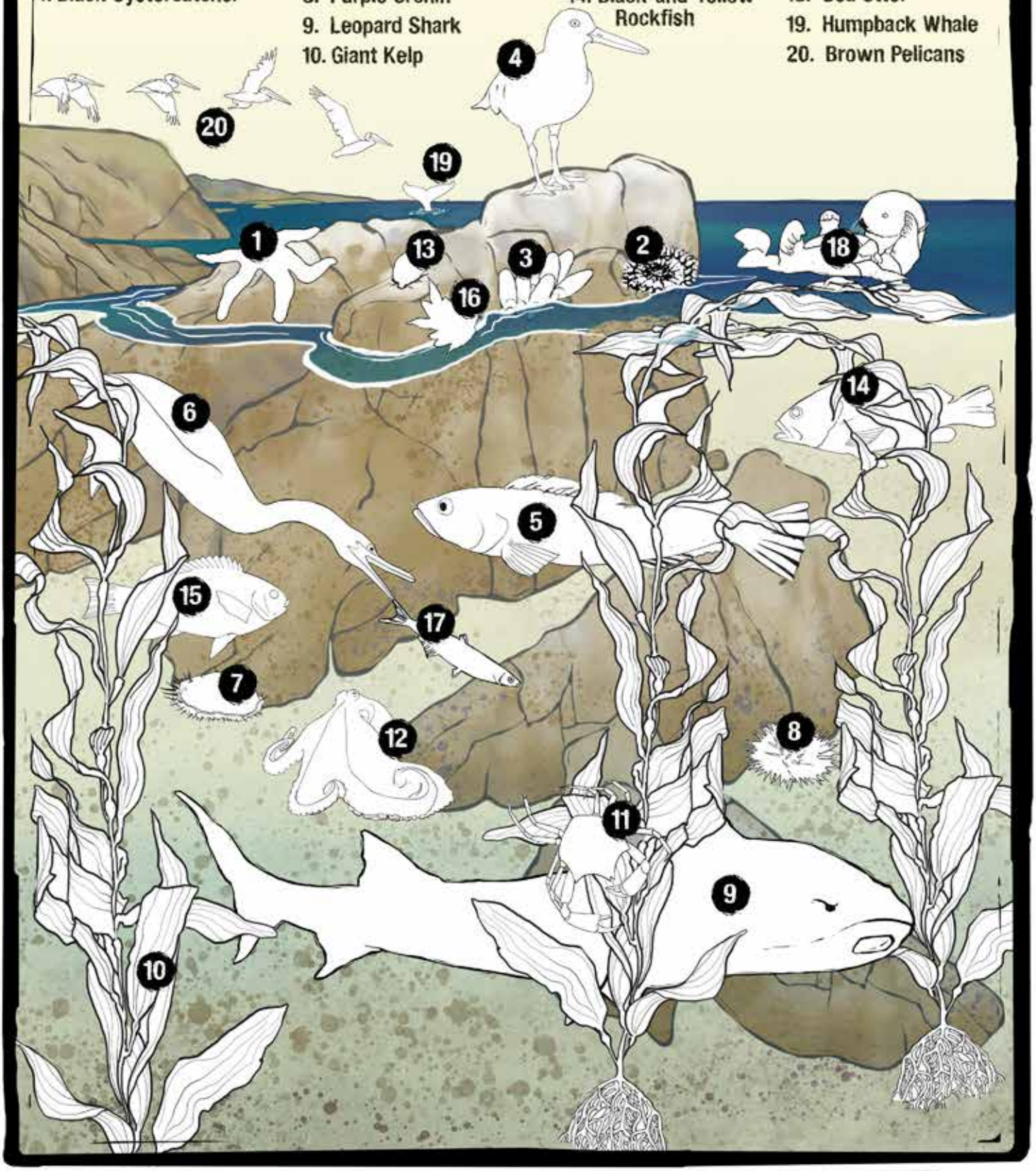
You can protect MPAs at the beach and from home. All places are linked together by water.

Do as many of these actions as you can. Color in the picture for each one you finish.

BINGO

Choose reusable.	Put trash and recycling in its place.	Pick up after your dog.
Watch wildlife from a distance.	Choose reusable decorations like flags and banners instead of balloons.	Teach a friend how to care for MPAs.
Save water.	Make an MPA poster!	Learn more about MPAs.

Share what you learned and get your certificate at www.mpacollaborative.org/kids

California's Coastal Critters in MPAs

1. Ochre Sea Star
2. Giant Green Anemone
3. California Mussel
4. Black Oystercatcher
5. Lingcod
6. Brandt's Cormorant
7. Red Abalone
8. Purple Urchin
9. Leopard Shark
10. Giant Kelp
11. Kelp Crab
12. Red Octopus
13. Turban Snail
14. Black-and-Yellow Rockfish
15. Opaleye Fish
16. Barnacles
17. Jacksmelt
18. Sea Otter
19. Humpback Whale
20. Brown Pelicans