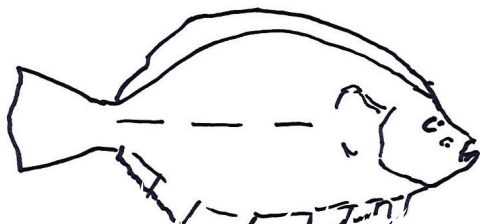
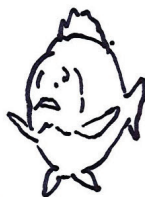
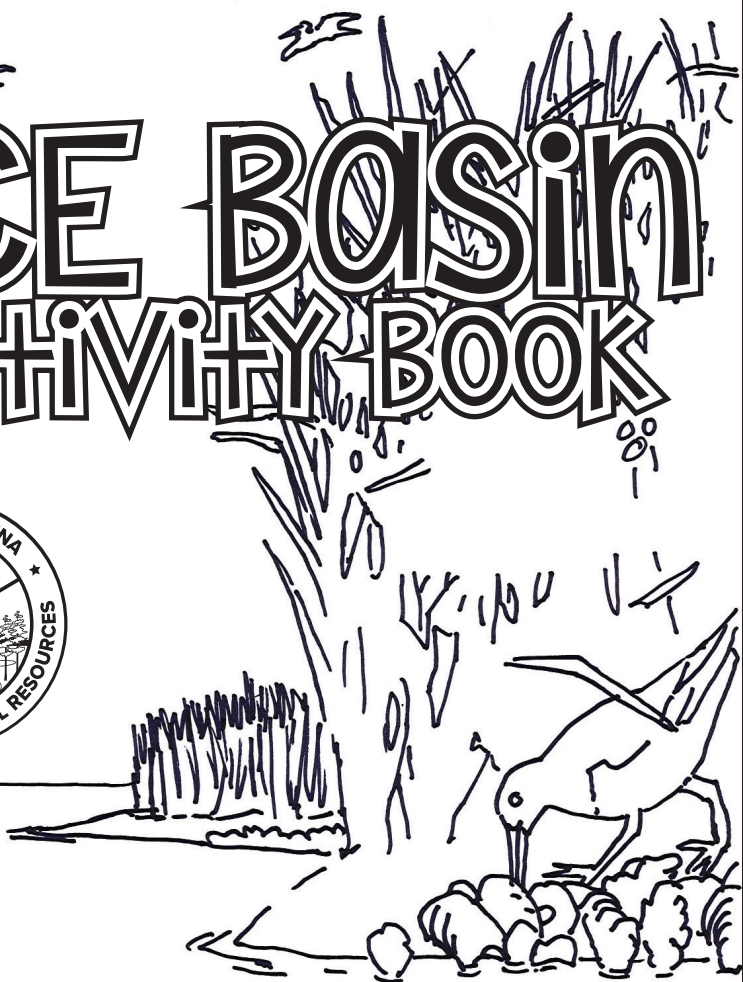


ACE BASIN ACTIVITY BOOK



www.dnr.sc.gov/marine/NERR/education.html

What is the ACE Basin?

The ACE Basin is a coastal region of South Carolina. It is one of the largest estuaries on the East Coast of the United States. Inland areas are forests, with extensive marshes spreading toward the ocean. It is home to abundant plant and animal life, including many endangered species. This region also has a rich history of culture and tradition.

To discover the three rivers from which the ACE Basin was named, follow the path through the maze. Put each letter, in order, on the blanks below.

The way to say it:
Ashepoo ... ASHY-poo
Combahee ... CUM-bee
Edisto ... ED-i-stow



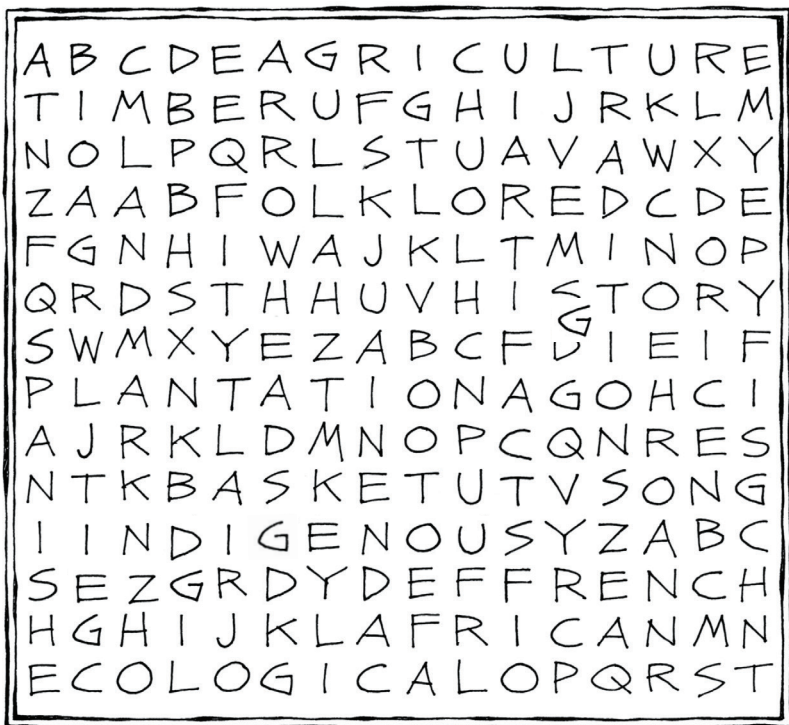
The _____, the _____,
and the _____ Rivers.

Home for People

The ACE Basin has been inhabited by humans since indigenous peoples settled here about 6,000 years ago. The Edisto, Combahee, and Ashepoo are names of American Indian tribes whose legacies now live on in the names of our rivers. In the sixteenth century, French and Spanish colonists established settlements alongside indigenous tribes. Within three centuries, disease, displacement and warfare caused indigenous communities to dwindle and, in many cases, go extinct. European colonists introduced large-scale agriculture to the landscape, a system made possible only through the enslavement of Africans and African-Americans. These enslaved people and their descendants created a unique culture and language called Gullah or Gullah Geechee. Because their enslavement was on remote, isolated coastal plantations, they were able to retain many of their indigenous African traditions, which still continue today through culinary practices, folklore, and song. The artistry of basket making is one of the most visible ongoing practices of the Gullah people.

Circle the words, from this list, in the word search.

African
agriculture
arrowheads
artifacts
basket
ecological
folklore
French
Gullah
history
indigenous
landmarks
plantation
rice
song
Spanish
timber
traditions

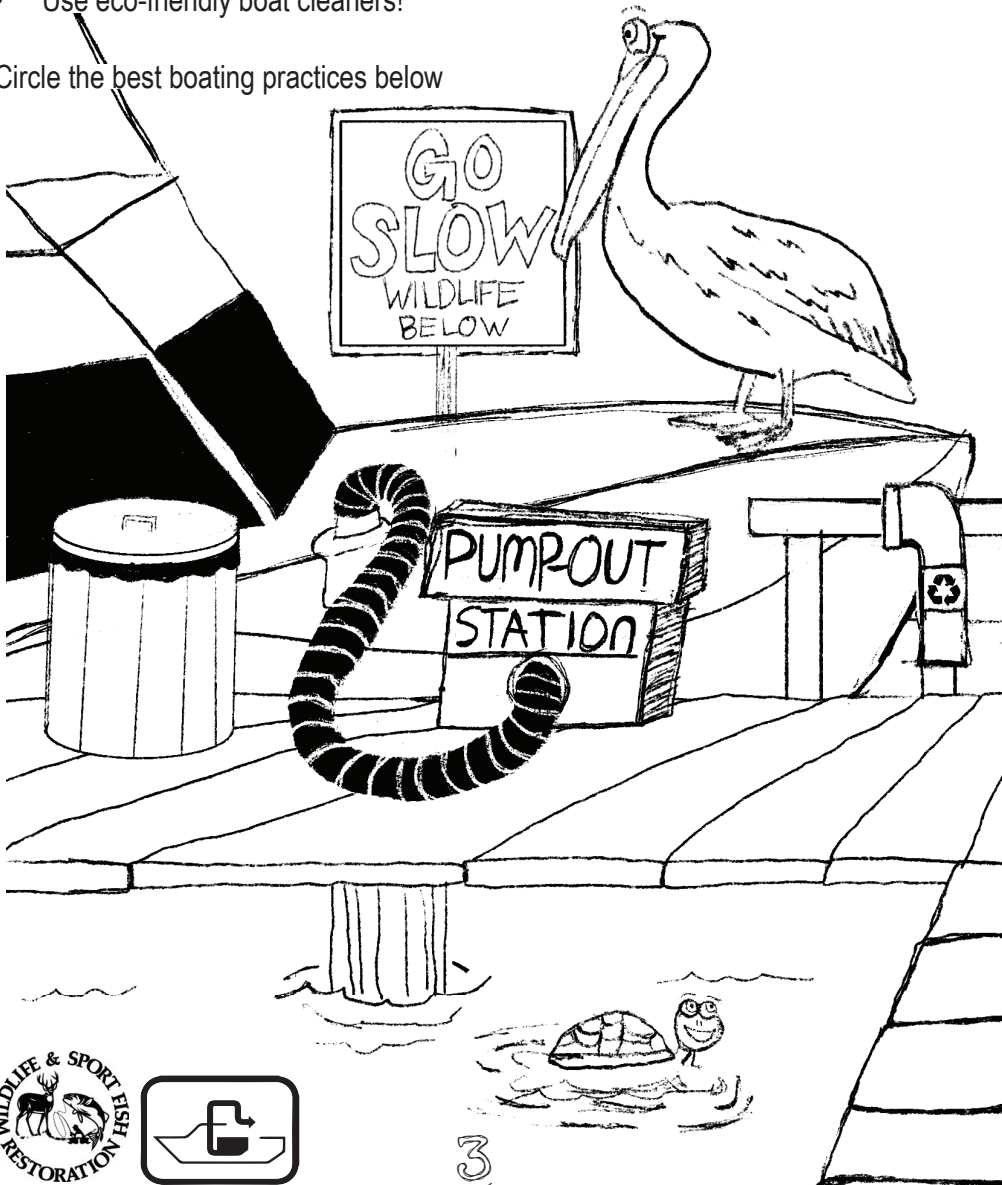


Practice Clean Boating!

Keep our waterways free from oil, trash, and sewage by following these best clean boating practices:

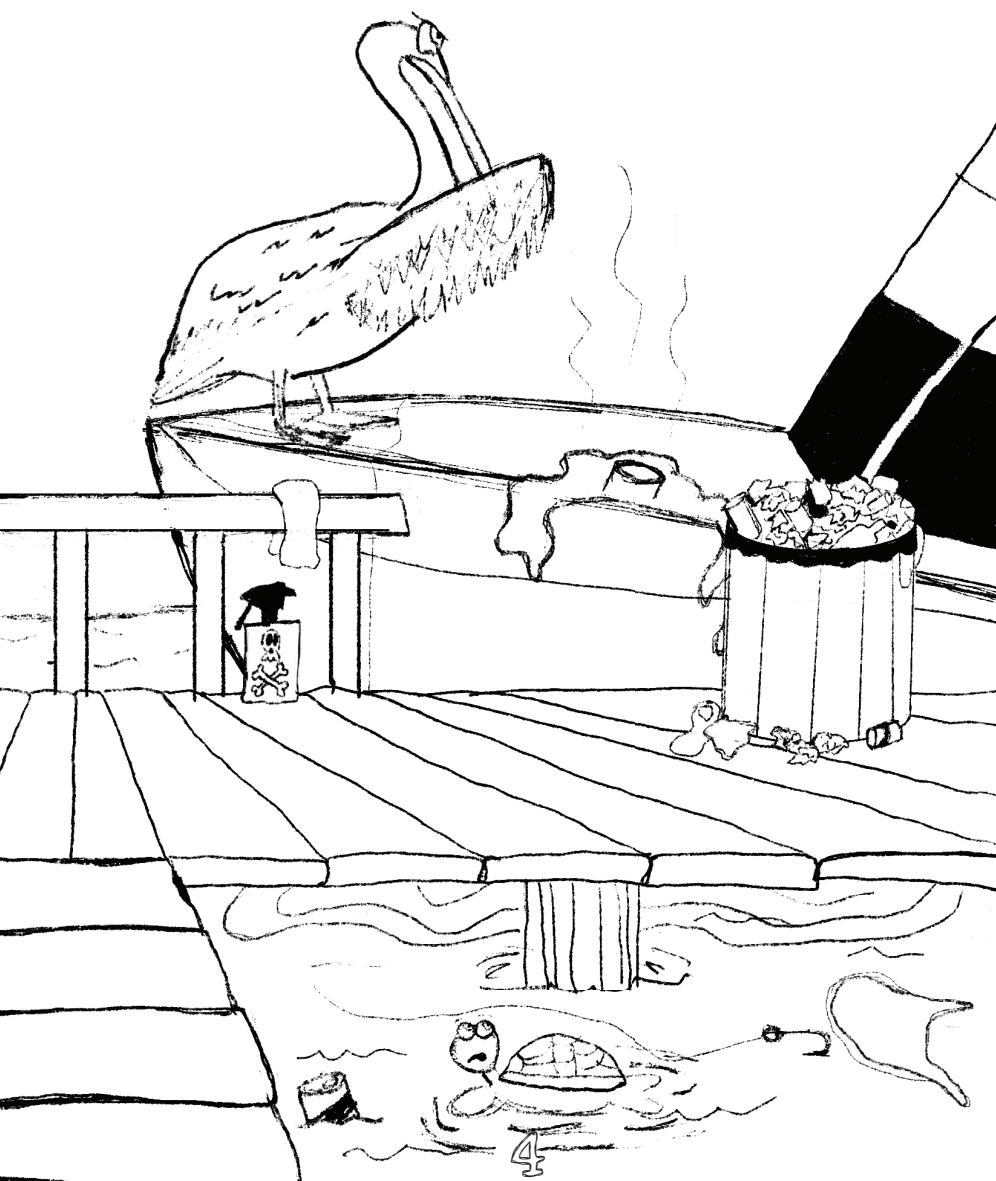
- Watch for wildlife by boating slowly when in shallow coastal areas
- Stash your trash and pick up trash when you see it
- Recycle your fishing line
- Keep sewage out of our waterways by using a pump-out station
- Use eco-friendly boat cleaners!

Circle the best boating practices below



What doesn't Belong?

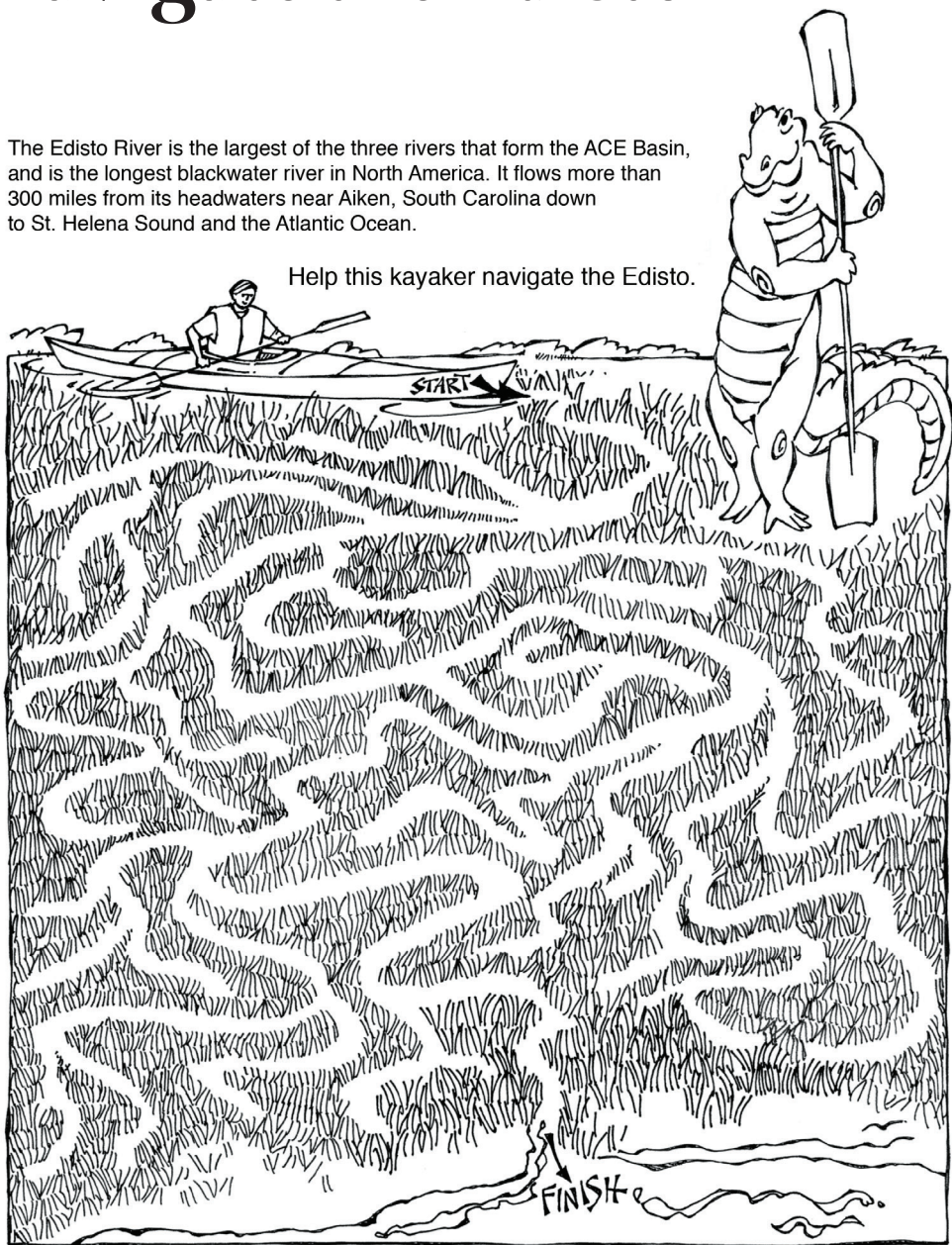
Pollutants in our waterways cause harm to humans, plants, and animals. Look at the picture below and circle what doesn't belong in our waterways.



Navigate the Edisto

The Edisto River is the largest of the three rivers that form the ACE Basin, and is the longest blackwater river in North America. It flows more than 300 miles from its headwaters near Aiken, South Carolina down to St. Helena Sound and the Atlantic Ocean.

Help this kayaker navigate the Edisto.



Home Sweet Home

Sea turtles eat a variety of organisms, including algae, seagrasses, sponges, crustaceans, jellyfish, and mollusks. With plentiful food, reduced threats to their survival, and conservation efforts the sea turtle calls the ACE Basin home.

Find your way through the maze on this loggerhead sea turtle's shell, from start to finish.

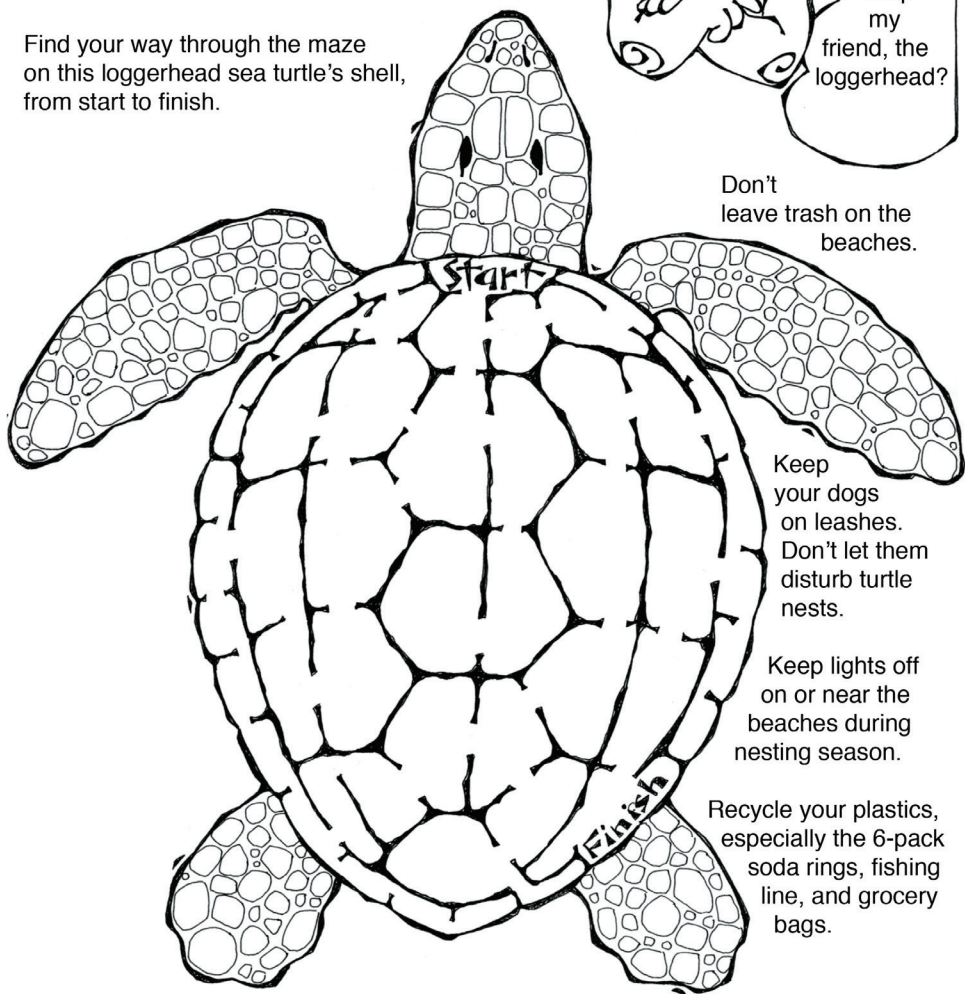


Don't leave trash on the beaches.

Keep your dogs on leashes. Don't let them disturb turtle nests.

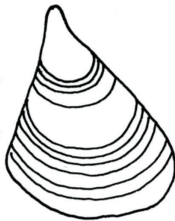
Keep lights off on or near the beaches during nesting season.

Recycle your plastics, especially the 6-pack soda rings, fishing line, and grocery bags.



Hidden Pictures

Find these shells in the collage of dolphins below:



Pen Shell



Lettered
Olive ...

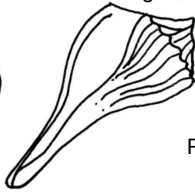
**South Carolina's
state shell**



Eastern
Mud Snail



Banded Tulip



Lightning Wink

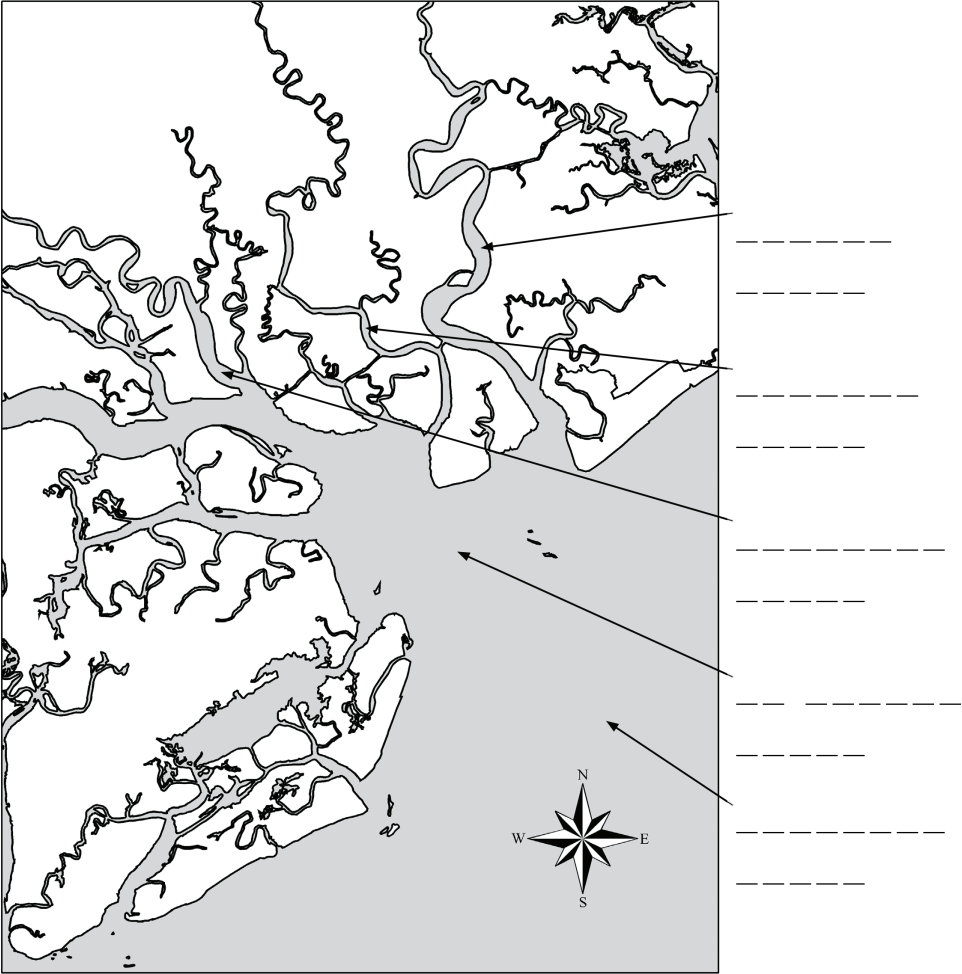


Periwinkle



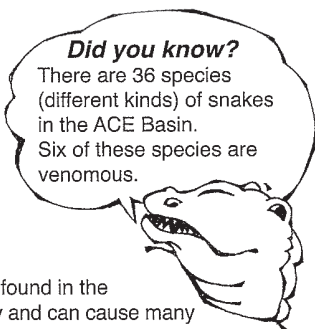
You Are Here

Label the areas of the ACE Basin on the map,
using this list: Ashepoo River
Atlantic Ocean
Combahee River
Edisto River
St. Helena Sound



Snakes in the ACE

Snakes play important ecological roles in the fragile ecosystems. They control the population of harmful rodents and pests, thus helping people. Though sometimes dangerous, snakes can be useful ... and, as with any species, they have the right to exist.



Coral Snake or Kingsnake?

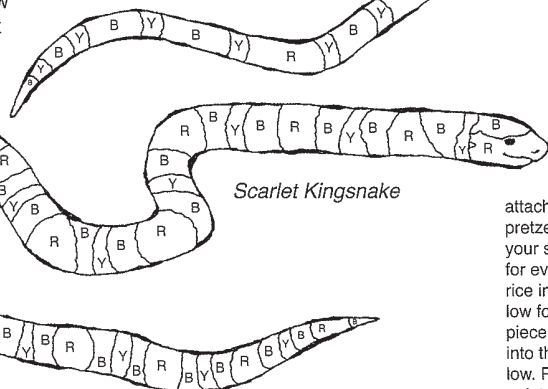
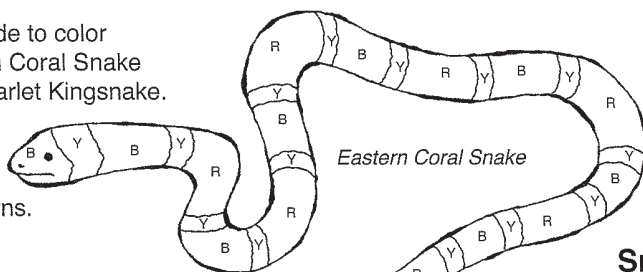
The **Eastern Coral Snake** is one of the poisonous snakes that is found in the ACE Basin. Its mouth and fangs are small, but their poison is deadly and can cause many problems for humans if they are bitten. The Eastern Coral Snake is not very aggressive. In fact, it is a very shy snake and the majority of the bite cases are ones in which humans are trying to handle the snake. The head of the coral snake is black and the body is encircled by black rings with yellow margins that alternate with red bands.

The **Scarlet Kingsnake** is a non-poisonous snake that is found in the ACE Basin. This snakes tries to trick people and other animals by having colors that are similar to the coral snake. However, you can tell the difference. Scarlet Kingsnakes are different in that they have red snouts and the yellow and red bands are separated by black.

The saying, "**red on yellow, kill a fellow; red on black, friend of jack**" was coined to remember which species is venomous.

Use the code to color the Eastern Coral Snake and the Scarlet Kingsnake. Notice the differences in the color patterns.

R = red
Y = yellow
B = black



Snake Snack

Ingredients - large marshmallows, pretzel sticks, red or black licorice

Push a pretzel stick into the flat end of a marshmallow, then push the flat end of another marshmallow onto the other end of the pretzel stick. Keep attaching alternating marshmallows and pretzel sticks, to the desired length of your snack (or make one giant snake for everyone to share). Push bits of licorice into the sides of the first marshmallow for eyes. To form the tongue, split a piece of licorice, and push the solid end into the flat side of the first marshmallow. Pinch the last marshmallow into a point for the tail.

Estuarine Habitats

Find these inhabitants of the estuarine habitat in the word search puzzle.

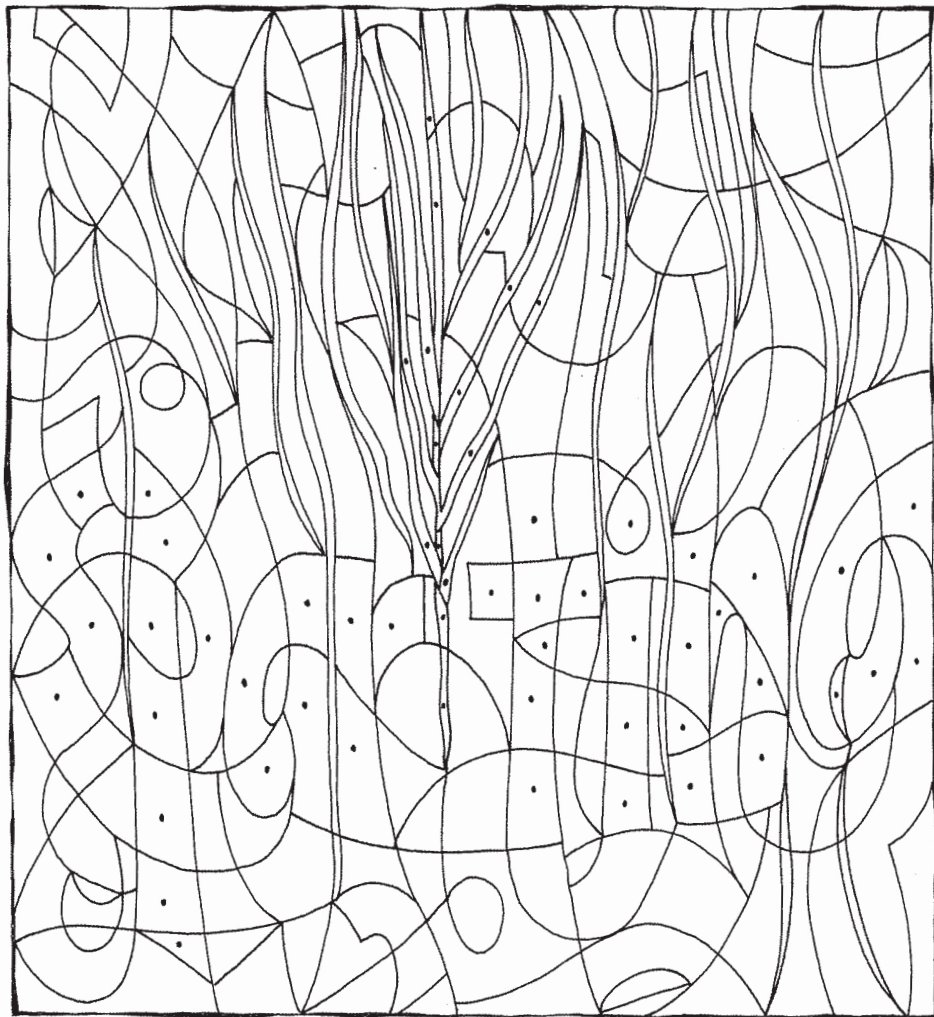
ALLIGATOR
BASS
BOBCAT
BLUE CRAB
CATFISH
CLAM
CORDGRASS
CRAB
DEER
DOLPHIN
DOVE
EAGLE
EGRET
FERN
FIDDLER CRAB
FLOUNDER
FOX
MOSQUITO
MULLET
OYSTER
PELICAN
PINE
POISON IVY
RABBIT
RACCOON
RATTLESNAKE
RED DRUM
SEA OATS
SHARK
SHRIMP
SPARTINA
SQUIRREL
STARFISH
TERRAPIN

XYCASBLUECRABS
DOLPHINATXONAP
EKANMOSQUITOSA
ELMOOLSHARKMSR
RYRKMMGRABBITT
MZLRUTHAACOADI
FIDDLERCRABLPN
LDOYLRICKTCLEA
OCVZERFOXFAILA
UOEATAJOLITGIB
NRZBYPKNYSXACC
DDSHRIMPNHKTAP
EGMPINEKSOHONO
RREDDRUMTTTREI
RATTLESNAKEIFS
YSUEAGLERYZKGO
ISREGRETFFERNHN
AZKTASQUIRRELI
KSEA OATSSXAJIV
XOYSTERKHCRABY

Coastal Plants & Animals

This is the most abundant and ecologically important plant in the ACE Basin's salt marshes. It provides the bulk of detritus to the marsh community, providing a major link in the food web. Many animals call this plant home.

To find the name of this plant and what it looks like, color all the sections with a dot.

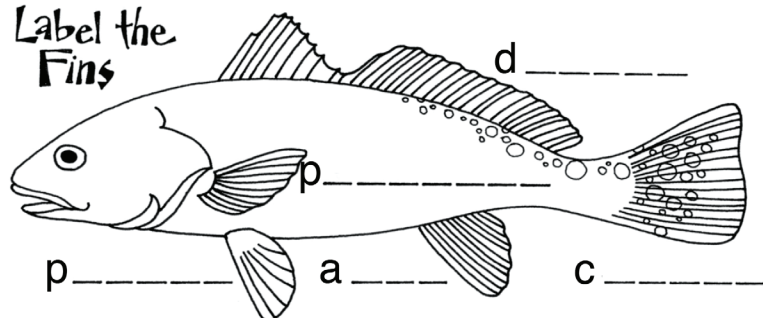


Red Drum

The ACE Basin is home to a wide diversity of fish habitats from the high salinity of St. Helena Sound to the freshwater rivers and streams that feed it.

The red drum (spottail bass) is a saltwater fish that thrives in St. Helena Sound.

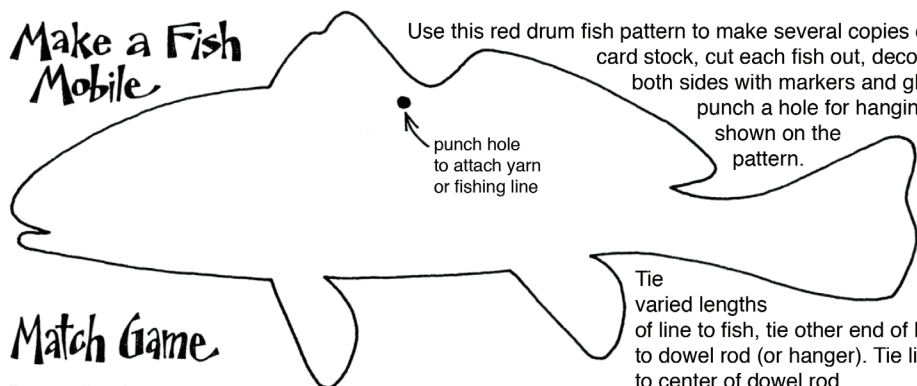
Label the Fins



anal
caudal
dorsal
pectoral
pelvic

Make a Fish Mobile

Use this red drum fish pattern to make several copies onto card stock, cut each fish out, decorate both sides with markers and glitter, punch a hole for hanging as shown on the pattern.

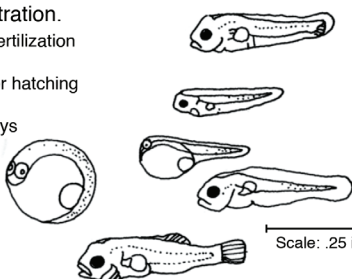


Tie varied lengths of line to fish, tie other end of line to dowel rod (or hanger). Tie line to center of dowel rod for hanging.

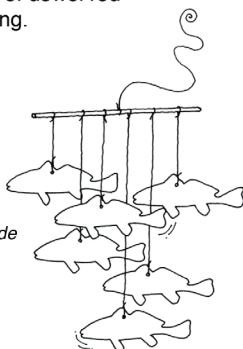
Match Game

Draw a line from the description of the developmental stage of the larval red drum to its matching illustration.

1. Egg, 1 day after fertilization (.04 inch length)
2. Larva, 1 hour after hatching (.07 inch length)
3. Larva, at 1 1/2 days (.07 inch length)
4. Larva, at 4 days (.11 inch length)
5. Larva, at 8 days (.15 inch length)
6. Larva, at 13 days (.25 inch length)



Alternate:
Write something you have learned about the ACE Basin on each side of the fish.



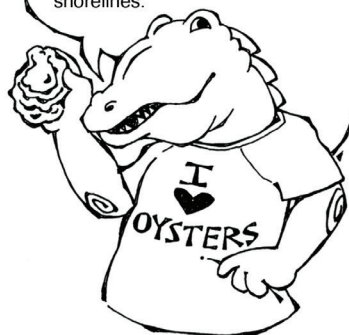
Oysters

Why are oysters important?

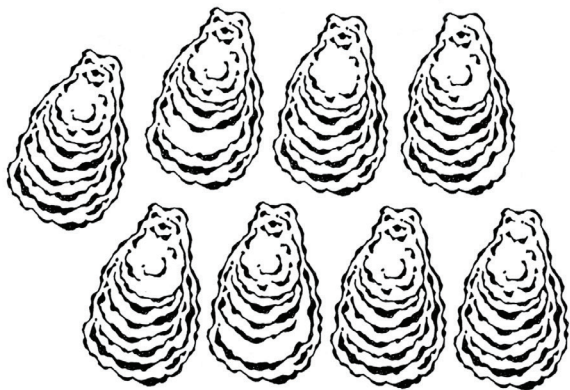
Filters: An adult oyster filters up to 50 gallons of water per day, improving water quality in the process.

Habitat: Oysters build reefs which provide habitat for fish, shrimp, crabs, birds, and other animals.

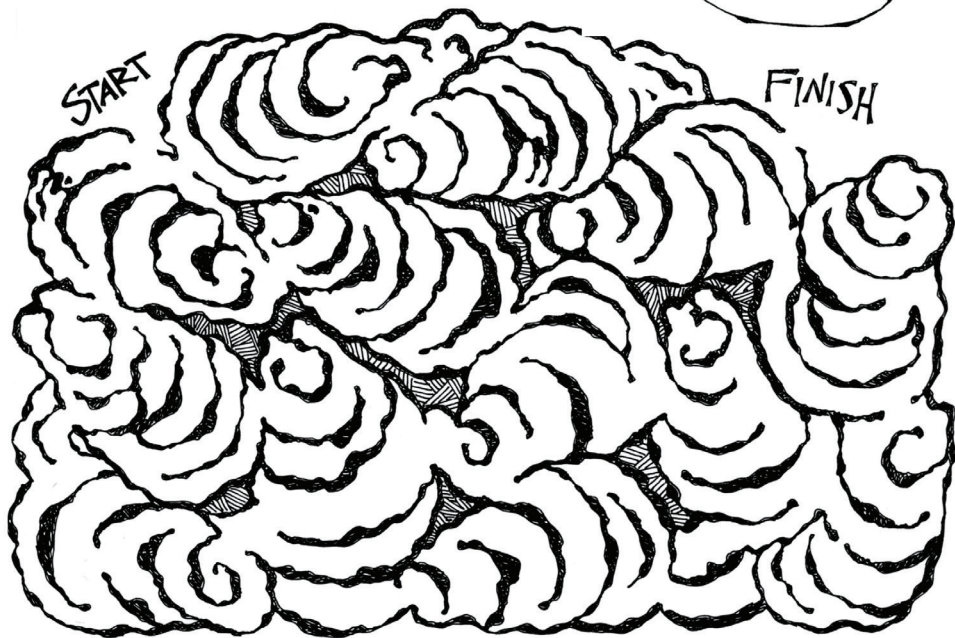
Erosion control: Oyster reefs are natural breakwaters that can protect shorelines.



Circle the two oysters that match.



Find your way through this oyster bed.



Jobs of the Salt Marsh

The salt marsh provides many benefits to humans and the rest of the ecosystem. Why is the salt marsh habitat important?

The salt marsh is one of the most biodiverse habitats in the world! This means it has a vast variety of life present within this one ecosystem. Protecting the salt marsh is very important because of this and other reasons listed below.

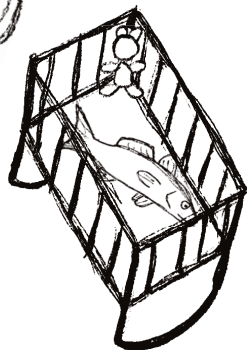
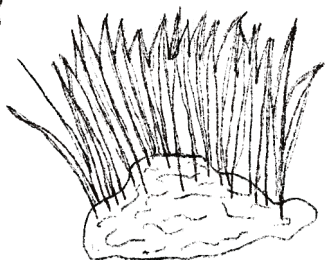
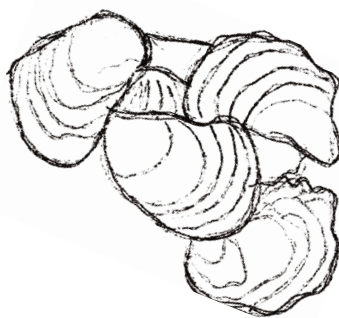
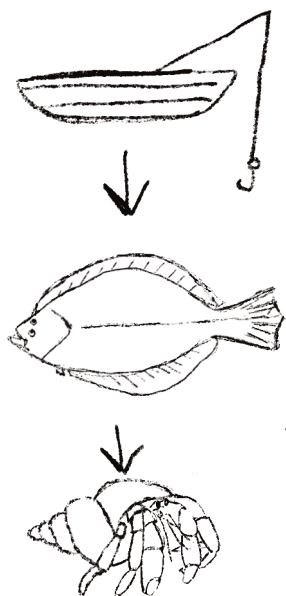
Draw an arrow from the images below that represent important functions of the salt marsh to the correct description and pictures.

Pluff mud absorbs excess water to help prevent flooding and erosion.

Oysters filter pollutants out of the water, provide shelter for juvenile animals, and recycled oysters are reused to build oyster reefs!

The marsh is a nursery for many juvenile species by providing protection and food until they are big enough to travel to the ocean.

The marsh is a huge food source for humans and animals!



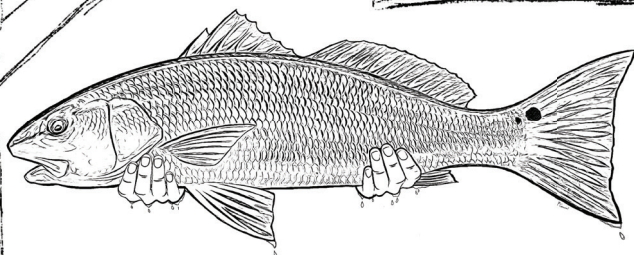
FISH FRIENDLY FUN

Practicing these fish friendly activities will help your fish survive after being caught and released.

- 1) Keep fishing in the water as long as possible
- 2) Wet your hands when touching fish
- 3) Use circle hooks and rubber-coated nets

SLIME IS COOL!

How can we help keep fish strong and healthy when we catch them? Fish have a protective layer of slime called a slime coat. This helps prevent a fish from becoming sick. By wetting your hands and using rubber-coated nets, you help them keep their slime shield!

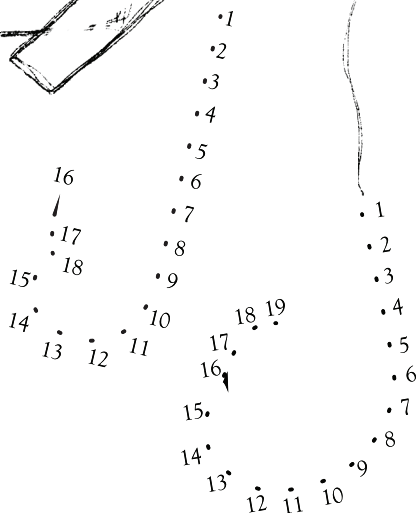


Color this fish's protective slime shield!

HOOKED ON CONSERVATION

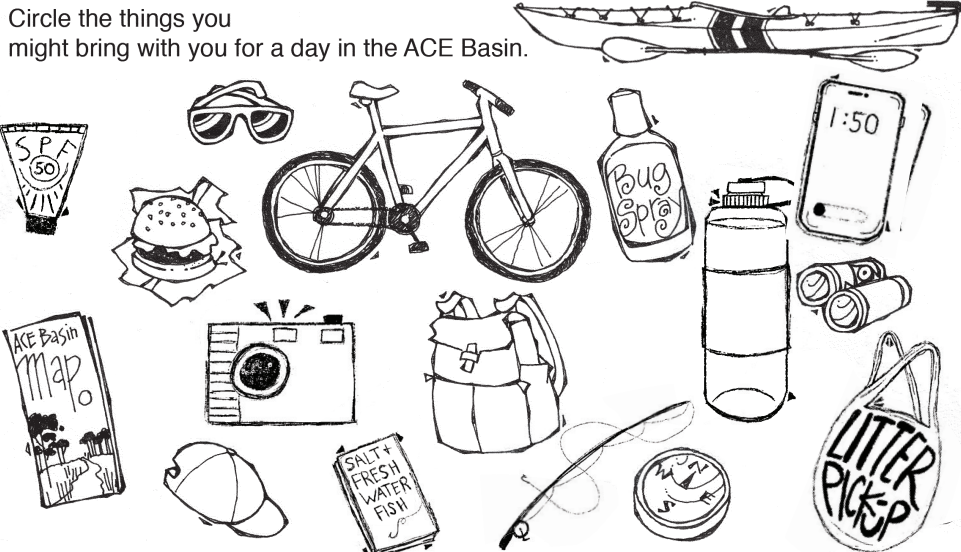
Picking the right hook for your fishing line is important. Did you know that the circle hook prevents hooking a fish's stomach and helps them have a better chance of surviving?

Connect the dots to draw the types of hooks used in fishing!



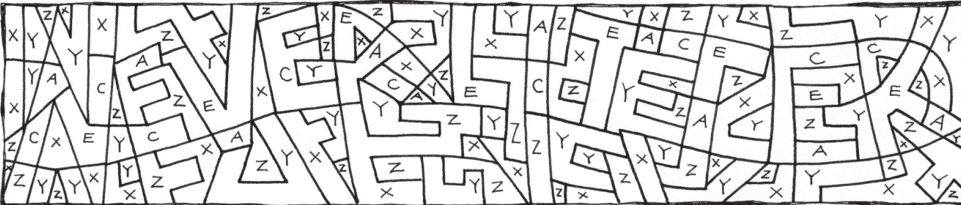
Come Prepared

Circle the things you might bring with you for a day in the ACE Basin.



Respect the Environment

It is important that we all play a part in preserving our environment.
Color in all the areas with an A, C, or E to read a reminder for what you can do to help.



List some things you can do every day to respect the environment in which you live.

 Printed on recycled paper.

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