

CAPE LOOKOUT NATIONAL SEASHORE is 56 miles of undeveloped beaches. The seashore is made of three barrier islands that protect the mainland from storms and waves. These islands form the southern part of North Carolina's Outer Banks, an area called the Graveyard of the Atlantic. The shoals, or shallow waters, of Cape Lookout stretch 12 to 20 miles off the beach and have sent many ships to the bottom of the Atlantic. Wind, tide and storms are constantly changing the sands above and below water on Barrier Islands.

Many creatures depend on the sea for survival. Sea turtles, fish, dolphins, sharks, crabs and underwater plants live by the changing tides. Much of what goes on in the oceans remains a mystery. But, some research suggests that even small changes in temperature or the amount of certain chemicals can have huge impacts on the plants and animals living in these waters.



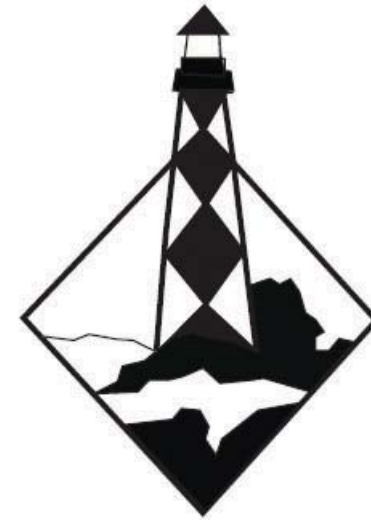
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Cape Lookout National Seashore



Saltwater Explorer



Name

Age

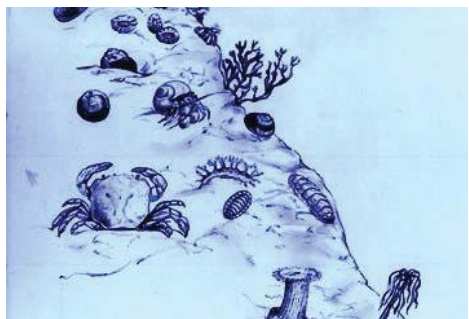
Junior Ranger Adventures
Unit 2
Grades 5 - 8

Photo Credits:

Shell by Darren Hester

Activity #10: Catch and Release

Big or small, all life has a role in the food chain. Use your nets to collect marine life. In the space below, sketch some of the things you found. Use the Guide to label your finds. Be sure to let everything go when you are done.



Saltwater Explorer

Saltwater covers approximately 70% of the planet. Cape Lookout National Seashore is a great place to explore these saltwater habitats.

GUIDELINES: Check out a Junior Ranger Adventure kit from the Visitor Center. In it you will find guide books, activity instructions, and all the materials needed to complete this booklet. You must complete 6 activities to earn the title Saltwater Explorer. Once completed, see the Ranger at the Visitor Center to receive your award.

Activities with "Additional Instructions" will be in quotes.

Activities with Guide Books will be underlined.



Activity #1: Life on the Edge

Wildlife that lives along the edge of the sea lives or dies with the changing tides. Record the high and low tides posted at the Visitor Center.

High Tide: _____ Low Tide: _____

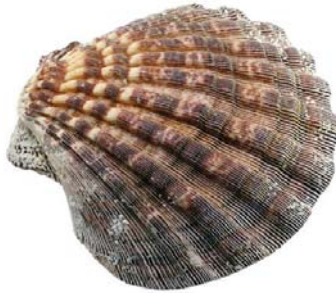
Now watch the shoreline at high tide and again at low tide. What differences do you see?

Activity #2: Shell Hunter

As you explore the seashore find 5 different shells. Make sure you put back any shells that have living creatures inside. Use your Guide to help you identify the shells.

Sketch and label your shells.

What animals made these shells?



Activity #8: Serve and Protect

Plan a service project that helps protect or improve marine life. This project can preserve or create a habitat. You could increase awareness of the human impact on marine life. Or, anything else you can think of.

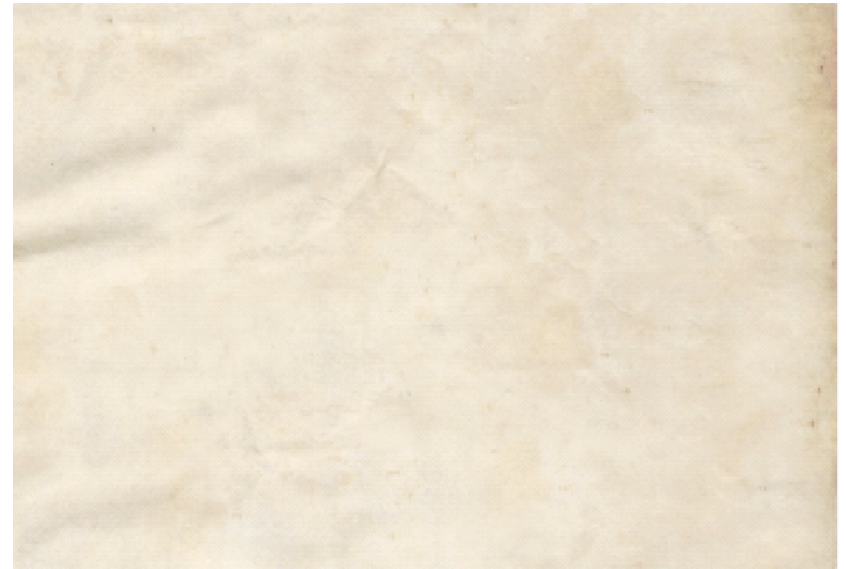
What is your project?

Activity #9: Saltwater Poet

The sounds of the ocean can be soothing. Spend some time listening to the sounds of the seashore.

Get creative and write a poem about life in the sea.

OR, get together in a circle and create a story about the ocean. One person says one word, then the person to the right says a word, then the next person, and so on.



Activity #7: Barrier Island Survivors

There are numerous plants that live by the ocean. Identify some of the different seaside plants using your Guide.

REMEMBER: Some of these plants hold the island together, so don't pull them out of the ground!

What did you find?

1. _____
2. _____
3. _____



How have these plants adapted to living on the harsh coastal environment?

Activity #3: Ocean Health Test

Ocean water contains a delicate balance of chemicals. Too much of one chemical or pollutant can kill marine life. Take a test sample of saltwater to determine if it is at a healthy level.



Activity #4: Sink or Float?

Salt water is more dense than fresh water.
What does that mean?

What is brackish water?

Try the “Water Density Test” activity and record what you observe.

Test Object	Fresh Water	Salt Water	Brackish Water
	Sink time in Seconds (s)		

Saltwater can be obtained from the ocean.

You can get Fresh Water from the restrooms or rinse area.

To make your own brackish water, put ½ Saltwater and ½ Freshwater in your jar.

Activity #5: Sailor’s Eye

Reading the water was an essential way for sailors to navigate the ocean. They had to pay attention to the height and speed, also called period, of the waves.

Do the “Wave Watcher” activity and record your results.

$$\text{Crest Height} - \text{Trough Height} = \text{Wave Height}$$

Period _____

Would it be a good day to sail a boat? Why/why not?



Activity #6: Dangerous Garbage

Look through the “Photos of Wildlife and Trash” in your kit. What are some of the ways trash can harm wildlife?
