# **Barrier Island Basics and Sea-level Rise**

# **Words to Know**

# **Overview**

Students will complete a crossword puzzle using vocabulary learned in the module.

## **Grade Level**

6th - 12th

## **Materials**

- pencil
- crossword

# **Time Required**

30 minutes

# **Objectives**

Students will review important terms used to describe the geomorphology, the effects of sea-level rise, and the plants and animals of barrier islands.

# **National Science Education Standards**

Standard F: Science in Personal and Social Perspectives

Natural resources

#### **Procedure**

- 1. Students will study the clues, then write the correct word in the right place on the crossword.
- 2. Once the crossword is completed, on the back of the worksheet, have the students use each word in a sentence.
- 3. Have students trade their crossword and sentences with a classmate and quiz each other to make sure they know the words well.

## **Discussion**

Which words were the most challenging to learn?
What is your favorite sea-level rise term that you learned?
What was the most interesting thing you learned about barrier islands?





Integration & Application Network (IAN)
University of Maryland Center for Environmental Science
www.ian.umces.edu

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# Barrier Island Basics and Sea-level Rise: Words to Know

## **Student Crossword Puzzle Clues**

Instructions: Write in the word that best matches the crossword clue to find the missing vocabulary terms.

#### Across:

- 4. When sea-level rises, the underground movement of saltwater into fresh groundwater.
- 6. A change in the volume of the world's oceans due to expansion as the oceans warm and to land-based ice melting.
- 10. As water temperatures increase, the molecules of the water get further apart and take up more space.
- 12. The average weather in a place over many years.
- 13. A saltwater habitat influenced by tides that supports wetland plants and animals.
- 14. The surface landscape features of an area.
- 16. Small depressions where rainwater collects and provides resources for plants and animals.
- 17. The scientific study of landforms and the processes that shape them.
- 18. When storm surge breaks through a barrier island completely to the bay, cutting it into two islands.
- 21. A small migratory shorebird that nest on Assateague Island.
- 22. The regular rise and fall of the ocean surface that occurs twice a day.
- 23. The upper surface of groundwater that may rise or fall due to sea-level rise and saltwater intrusion.
- 24. A narrow channel of water that separates barrier islands from one another.
- 25. An area of low-lying land that is saturated with water part, if not all, of the year.

#### Down:

- 1. Hills of windblown sand that form above the high tide line on a beach.
- 2. Changes in air and water temperatures and alterations in long-term weather patterns due to greenhouse gases in the atmosphere.
- 3. The offshore movement of sand or sediment by a parallel ocean current.
- 4. A very rare plant that grows on the ocean overwash areas of Assateague Island.
- 5. The natural process of a barrier island migrating closer geographically to the mainland.
- 7. Plants that grow underwater in bays between a barrier island and the mainland.
- 8. The natural process of sand and saltwater washing over the dunes, clearing vegetation in its path.
- 9. A habitat of high recreational use where people enjoy swimming, fishing, and surfing.
- 11. Water that is pushed toward the shore by the force of storm winds and waves.
- 15. A dynamic landform that is separated from the mainland coastline by a bay and that protects the mainland from powerful storms.
- 19. When waves carve out and wash away beach sand from a barrier island.
- 20. The place or environment where an organism naturally lives.