

# ROCKY SHORE SCOOT!

## Topic

Rocky Shore Ecosystem

## Duration

One session

## Vocabulary

N/A

## STANDARDS

### Practices

Analyzing and Interpreting Data

### Core Ideas

Ecosystem Dynamics, Functioning, and Resilience

### Crosscutting Concepts

Systems and System Models

## OCEAN LITERACY PRINCIPLES

OLP 1, OLP 2, OLP 3, OLP 4, OLP 5, OLP 6

## FOCUS QUESTION

What rocky shore facts do I know?

## OVERVIEW

Students recall facts they have learned from the Rocky Shore Marine Science Curriculum: An Ecosystem Unit for Elementary Educators. Students identify knowledge areas they need to strengthen.

## OBJECTIVES

*Students will be able to:*

- ★ Recall facts about the rocky shore including animals, algae, zones, and conditions of the rocky shore
- ★ Identify strengths and shortcomings in terms of personal knowledge of the rocky shore ecosystem
- ★ Review facts about the rocky shore ecosystem to enhance their knowledge

## MATERIALS NEEDED

- ★ Rocky Shore Scoot Task Cards (one per desk, pages 201–208)
- ★ Rocky Shore Scoot Grid activity sheet (one per student, page 210)
- ★ Rocky Shore Scoot Answer Key (one per student, page 209)

## TEACHER PREPARATION

1. Make copies of Rocky Shore Scoot Task Cards, cut out cards and place one on each desk or available surface.
2. Make copies of Rocky Shore Scoot Grid activity sheets for each student.
3. Make copies of the Rocky Shore Scoot Answer Key for each student.

## BACKGROUND

The facts covered in this movement activity are from the lessons of the Rocky Shore Marine Science Curriculum: An Ecosystem Unit for Elementary Educators. The activity's content is comprised mostly of rocky shore ecosystem facts, but also contains facts about the ocean in general and watersheds.





### Teacher Tips

- ★ Play music during the Rocky Shore Scoot activity—similar to musical chairs—and stop the music when you exclaim, “Scoot!”
- ★ If there are students in class that have difficulty with reading the task cards or writing down answers, have them pair up with partners who can assist them, or consider having the entire class work together in partners.



### Extension Suggestions

- ★ Play a “rocky shore identity game.” Write the names of rocky shore animals or algae on index cards—one per student. Tape one card to the back of each student. Have students spread out in a large area and ask each other “Yes” or “No” questions in attempt to discover the animal or algae that has been taped to their backs. Play until all students discover their animal or algae name.

## PROCEDURE

### Part One

1. Inform students that they are going to be participating in a movement activity called “Rocky Shore Scoot!”
2. Have students place their Rocky Shore Scoot Grid activity sheets on a clipboard, book, or other transportable, hard surface.
3. Provide students with the following instructions:
  - a. When the teacher says, “Scoot!” move to any desk in the room and read the task card.
  - b. Decide what the task card is asking you to do.
  - c. Answer the task card’s question and write it in the grid square on your activity sheet that matches the task card’s number (i.e., if you solve task card number seven, write the answer down in grid number seven of your activity sheet).
  - d. Wait for the teacher to say “Scoot!” to move to the next task card.
  - e. If you do not complete your answer when the teacher says “Scoot,” move on to the next task card, and try to return to the previous task card on another movement turn.
  - f. When you have completed all the task cards, or when the teacher says there is no more time for the activity, return to your desk.
4. Have students participate in the Rocky Shore Scoot activity and say “Scoot!” intermittently several times until most or all of the students have visited each task card.
5. When you have determined that the activity is complete, review the answers to the questions with the class using the Rocky Shore Scoot Answer Key.
6. Make sure to have students circle the answers they got incorrect so they can review those questions later.

### Part Two

7. Inform students that they are going to be reviewing their incorrect answers with a partner.
8. Have students get into partners and hand out answer keys to each student, or to each set of partners.
9. Partners are to exchange their Rocky Shore Scoot Grid activity sheets with one another.





### Books

- ★ *DK Eyewitness Books: Seashore* by Steve Parker
- ★ *The Seaside Switch* by Kathleen V. Kudlinski



### Websites

- ★ Check out the Crash Course Kids YouTube Channel episode titled “The Life Hydrologic.”
- ★ Watch the Cape Cod National Seashore’s YouTube Channel episode titled “The Intertidal Zone.”



### Scientist Notebook

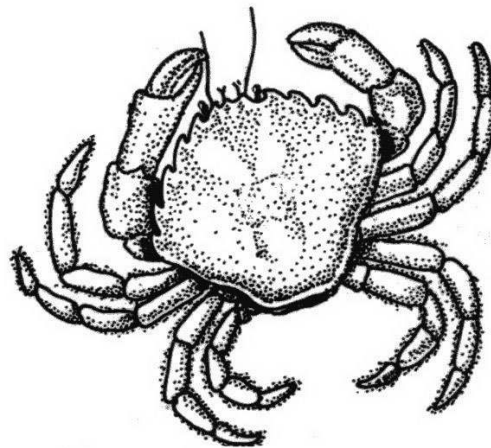
- ★ Students can record the questions and answers of the task cards they struggled with in their notebooks.

### PROCEDURE (CONTINUED)

10. One partner will “quiz” the other partner on the answers he/she did not get correct, using the answer key as a guide. When finished, partners will reverse roles.
11. After having reviewed their incorrect answers, have partners review their correct answers.

### WRAP-UP

- ★ Ask students which questions they struggled answering correctly.
- ★ Have students brainstorm ways they can remember the facts they struggled to answer correctly.



*Rocky Shore*

SCOOT

What percent of the Earth's crust is covered by the ocean?

1

*Rocky Shore*

SCOOT

What do you call an area of land in which all water flows down into a common basin?

2

*Rocky Shore*

SCOOT

A community of interacting organisms and their environment is called an \_\_\_\_\_.

3

*Rocky Shore*

SCOOT

Which ecosystems are intertidal areas made up of rocks, pools of water, and many algae and animals?

4

*Rocky Shore*

SCOOT

A \_\_\_\_\_ is formed by energy passing through water. Wind, earthquakes, and tides can help form them.

5

*Rocky Shore*

SCOOT

What is the steady rise and fall of the ocean water levels called?

6

*Rocky Shore*

SCOOT

What is the main cause of the tides?

7

*Rocky Shore*

SCOOT

As heat energy reaches a substance, the substance \_\_\_\_\_ the heat.

8

*Rocky Shore*

SCOOT

What is a body part or a behavior that helps a living thing survive in its environment called?

9

*Rocky Shore*

SCOOT

Which rocky shore zone has the least amount of water exposure?

10

*Rocky Shore*

SCOOT

\_\_\_\_\_ are shallow bodies of saltwater that are left behind when the tide recedes.

11

*Rocky Shore*

SCOOT

Which rocky shore zone has the least amount of water exposure?

12

*Rocky Shore*

SCOOT

This rocky shore zone is only covered by water during high tide.

13

*Rocky Shore*

SCOOT

This rocky shore zone is exposed to air and water an almost equal amount of the time.

14

*Rocky Shore*

SCOOT

\_\_\_\_\_ is the use of materials or coloration for concealment.

15

*Rocky Shore*

SCOOT

This type of camouflage occurs when an animal hides itself against a background of the same color.

16

*Rocky Shore*

# SCOOT

This rocky shore zone is almost always covered in water except for extreme low tides.

17

*Rocky Shore*

# SCOOT

Most crabs are covered with a thick shell called an \_\_\_\_\_.

18

*Rocky Shore*

# SCOOT

This rocky shore zone is always exposed to water.

19

*Rocky Shore*

# SCOOT

All fish have \_\_\_\_\_ to filter oxygen from the water.

20



*Rocky Shore*

# SCOOT

All fish have \_\_\_\_\_ for support and movement.

21

*Rocky Shore*

# SCOOT

The name “plankton” comes from the Greek word meaning \_\_\_\_\_.

22

*Rocky Shore*

# SCOOT

More than two-thirds of the oxygen we breathe is produced by \_\_\_\_\_.

23

*Rocky Shore*

# SCOOT

Some rocky shore organisms eat by straining their food from the saltwater. This method of eating is called \_\_\_\_\_.

24

*Rocky Shore*

# SCOOT

Some algae have root-like organs that help them attach to rocks. They are called \_\_\_\_\_.

25

*Rocky Shore*

# SCOOT

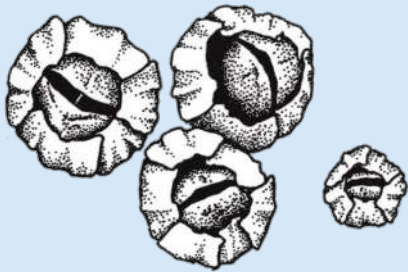
Algae, like plants, produce food with sunlight by the process of \_\_\_\_\_.

26

*Rocky Shore*

# SCOOT

What is this animal?

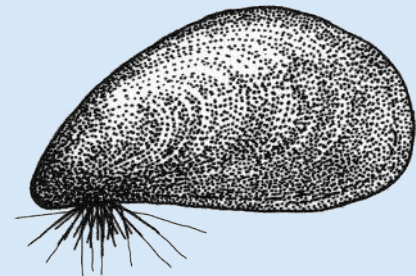


27

*Rocky Shore*

# SCOOT

What is this animal?

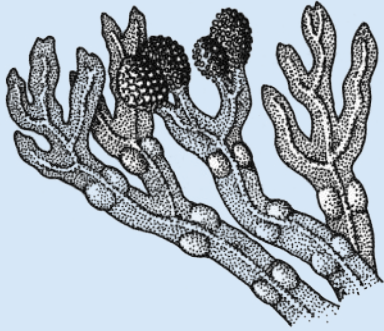


28

*Rocky Shore*

SCOOT

What is this type of algae?



29

*Rocky Shore*

SCOOT

What is this type of algae?



30

# ROCKY SHORE SCOOT!

## Answer Key

### TASK CARD NUMBERS

1. Around 71%
2. Watershed
3. Ecosystem
4. Rocky shore ecosystems
5. Wave
6. The tides
7. The gravitational force of the moon
8. Absorbs
9. Adaptation
10. Splash Zone
11. Tide pools
12. Spotted sandpiper
13. Upper intertidal zone
14. Middle intertidal zone
15. Camouflage
16. Concealing coloration
17. Lower intertidal zone
18. Exoskeleton
19. Subtidal zone
20. Gills
21. Backbones (vertebrae)
22. Drifter
23. Phytoplankton
24. Filter feeding
25. Holdfasts
26. Photosynthesis
27. Barnacles
28. Blue mussels
29. Rockweed
30. Knotted Wrack



# ROCKY SHORE SCOOT GRID

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1.	2.	3.	4.	5.	6.
7.	8.	9.	10.	11.	12.
13.	14.	15.	16.	17.	18.
19.	20.	21.	22.	23.	24.
25.	26.	27.	28.	29.	30.

