

# OCEAN CLASSROOM

## **The Study of Corals**

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### **Where do corals live?**

EDUCATOR GUIDE

THE  
UNIVERSITY  
OF RHODE ISLAND  
GRADUATE SCHOOL  
OF OCEANOGRAPHY

## Guiding Question

## “Where do corals live?”

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### Day 1

### Where do *warm water* corals live?

*Time required: 45 minutes*

**Procedure:**

Divide students into groups of 3 or 4.

Have them read the informational essay aloud within their groups. Students are to highlight the important facts.

Then as a class, show as many videos as time allows and ask students to write down any additional facts. After the show, ask someone from each group to read aloud their most important fact. Go from group to group until class ends.

## Day 2

### Can corals live in *cold water*?

*Time required: 45 minutes*

**Procedure:** Divide students into groups of three or four. Have them read the informational essay aloud within their groups. Students are to highlight the important facts.

Then as a class, show as many videos as time allows and ask students to write down any additional facts. After the show, ask someone from each group to read aloud their most important fact. Go from group to group until class ends.

**Note:** If you have extra time, or need an additional assignment, have students complete the resource: “Where Do Coral Live? Vocabulary Terms.”

Use these terms on sites like [Kahoots.com](https://www.kahoot.com), [Puzzlemaker.com](https://www.puzzlemaker.com) and [Quizlet.com](https://www.quizlet.com) to make worksheets/games!

## Day 3

*Time required: 45 minutes*

### **Comparing warm and cold water corals**

**Procedure:** Students go to their groups. Tell them they will be working on a Venn Diagram, an organizational tool used to compare two things. They will need their notes from the past two days. The teacher starts students off by putting one fact in the Venn Diagram. Then students complete their work while talking quietly in their group. They should be done after 15 minutes. Then they can share their answers.

### **Where in the world do coral live?**

**Procedure:** Now it's time for some map work. Students work together to complete the mapping worksheet. They should have time to complete the coloring and labeling of the map. Otherwise, the map can be assigned as homework.

**Day 4**

*Time required: 45 minutes*

**Procedure:** Ask students to take out their maps and correct them as a class.

Students then go into their groups to complete the rest of the lesson and answer the questions. They can talk quietly together.

After 15 to 20 minutes, anyone not done answering questions must bring them home to finish. Tell everyone to take out their computers and turn to the page in the student guide, "Interactive Reef Site." Read the page out loud to the class, then have them go to the site. Use the rest of the class period to allow students to navigate the site.

**Day 5***Time required: 45 minutes*

**Procedure:** Students refer to the questions in “Where in the World do Corals Live?”  
Correct the responses together.

**Answers:                   Where in the World Do Corals Live?**

1. What do we call the area between approximately 30 degrees N latitude and 30 degrees S latitude?

**The Tropics**

2. Give two reasons why we call it this.

**It is near the Equator with hot temperatures (land/ocean)  
It gets direct sunlight for long periods of time**

3. What type of coral live along the Equator?

**Warm water/reef building coral**

4. Give four reasons why they thrive there.

**Lots of sunlight  
Water is warm.  
Water is clear.  
Water has the right degree of salinity.  
The algae can photosynthesize.**

5. What is the temperature like at the higher latitudes? (ie. 60 degrees N latitude or 60 degrees S latitude)?

**Very cold**

6. What is the climate zone called? Give two reasons why we call it this.

**The Polar Zone  
Less direct sunlight  
Cold temperatures (land/ocean)  
It is near the polar caps.  
Cold ocean water**

7. What type of coral live there?

**Deep water coral**

8. Give two reasons why they thrive there.

**Deep ocean water  
Cold ocean water**

*(Continued on next page.)*

**Answers:                      Where in the World Do Corals Live?**

*(Continued from previous page.)*

9. Why do you think scientists have not studied deep-water coral as much as warm-water coral?

**They didn't know they existed.**

**They live in deep ocean depths.**

**Our scientific equipment could not go down that far.**

10. As a group, discuss where you **think** MOST of the oceans' pollution occurs — In the atmosphere, near the land, on the ocean's surface, or below the ocean's surface. Give at least one reason for your answer.

**Answers will vary.**

## Resources

MacGillyvray Freeman's Coral Reef Adventure Film Guide

- <http://www.coralfilm.com/CRAEducatorGuide.pdf>

Coral Reef Alliance Coral Reefs 101

- <https://coral.org/coral-reefs-101/coral-reef-ecology/>

World Register of Introduced Marine Species (WRiMS): Coral Reefs

- [http://marinespecies.org/introduced/wiki/Coral\\_reefs](http://marinespecies.org/introduced/wiki/Coral_reefs)

Kids Do Ecology: World Biomes, Coral Reefs

- <http://kids.nceas.ucsb.edu/biomes/coralreef.html>

National Ocean Service: Where Are Reef Building Corals Found?

- [https://oceanservice.noaa.gov/education/tutorial\\_corals/coral05\\_distribution.html](https://oceanservice.noaa.gov/education/tutorial_corals/coral05_distribution.html)

Cold Water Corals

- [https://www.youtube.com/watch?v=Fb1go4zcTUQ&ab\\_channel=marumTV](https://www.youtube.com/watch?v=Fb1go4zcTUQ&ab_channel=marumTV)

UN Environment Programme: Cold Water Corals

- [https://www.youtube.com/watch?v=cJX-QumbBLC&ab\\_channel=UNEnvironmentProgramme](https://www.youtube.com/watch?v=cJX-QumbBLC&ab_channel=UNEnvironmentProgramme)

Smithsonian: Deep-Sea Corals

- <https://ocean.si.edu/ecosystems/coral-reefs/deep-sea-corals>

NOAA Coral Reef Conservation Program: Interactive Reef

- <https://coralreef.noaa.gov/interactivereef/interactivereef.html>

LAB 360 Easy Science Experiments: Hot and Cold Water Science Experiment

- [https://www.youtube.com/watch?v=86ChgK38EIA&ab\\_channel=LAB360-HooplaKidzLab](https://www.youtube.com/watch?v=86ChgK38EIA&ab_channel=LAB360-HooplaKidzLab)