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Foundation

STANDARDS

- **CCSS:** RST.9-10.1, 3, 4, 5, 7, 8, 9, 10; RST.11-12.1, 3, 4, 8, 9, 10; W.9-10.4, 7, 8; W.11-12.4, 7, 8; SL.9-10.1, 3, 6; SL.11-12.1, 3, 6
- **NGSS:** ESS 2.D, HS-LS2-6
- **OLP:** 1.B, 1.B.3, 5.A.2, 5.B.1, 5.B.2, 5.B.5, 5.C.25, 5.C.33, 5.C.34

ONLINE CONTENTS

- [Environmental Conditions Quiz](#)

ENVIRONMENTAL CONDITIONS

This lesson is a part of the *Environmental Conditions* unit, which explains the abiotic factors that corals need to thrive. Below is a summary of what is included in the entire unit.

UNIT CONTENTS

A. [Background Information](#)

- Environmental Conditions
- Abiotic Factors

B. Lessons

[Conditional Corals](#)

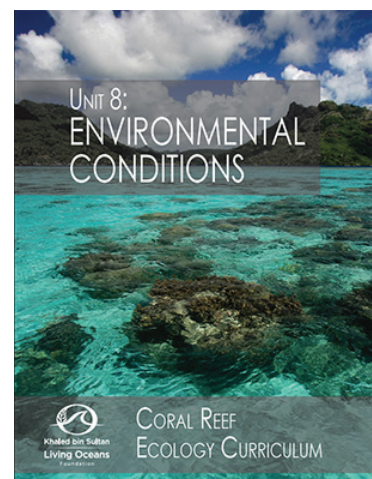
- A lab to evaluate the water quality at potential sites for a new coral reef colony

[Deep Conditions](#)

- A lesson to research deep-water corals and compare them to shallow-water corals

[Read it! Shivering for Science](#)

- A worksheet to accompany the [Shivering for Science](#) field blog





LESSON 2

DEEP CONDITIONS

INSTRUCTIONS: Fill in the table to compare shallow- and deep-water corals and then answer the questions below.

Ideal Condition	Shallow-water corals	Deep-water corals
Light		
Depth		
Water temperature		
Salinity		
Turbidity		
Nutrients		
pH		
Substrate		

1. Examine the information in the table above. Do you think there may be some areas of the ocean that could support both shallow- and deep-water corals at the same time? Why or why not?

2. How do the growth rates of the two types of corals compare to each other?



3. Why would you not find a shallow-water coral below 70 m depth?

4. Why do we know so much more about shallow-water corals than we do about deep-water corals?

5. List human-caused threats to each of the types of corals.

Deep-water corals	Both	Shallow-water corals