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Living Oceans
Foundation

KEYWORDS

- Abiotic Factor
- Algal Ridge
- Atoll
- Back Reef
- Barrier Reef
- Calcium Carbonate (CaCO₃)
- Drop-off
- Fore Reef
- Fringing Reef
- Lagoon
- Patch Reef
- Reef Crest
- Reef Flat
- Reef Front
- Spur and Groove Reef

REEF ZONATION

This unit explains the characteristics and location of the reef zones.

STANDARDS

- **CCSS:** RST.9-10.1, 2, 3, 4, 5, 7, 8, 10; RST.11-12.1, 2, 3, 4, 8, 10; SL.9-10.1, 2, 3, 6; SL.11-12.1, 2, 3, 6
- **NGSS:** HS-ESS2-1, HS-LS2-6
- **OLP:** 5.B.7, 5.B.8, 5.C.33, 7.A.5, 7.C.2, 7.C.3

MULTIMEDIA RESOURCE

- *Coral Reef Zones* YouTube video (https://youtu.be/1wMrB37_GvI)

LEARNING OBJECTIVES

- Identify the three main types of coral reefs.
- List the abiotic factors that influence the distribution of organisms in each zone.
- Define reef flat and explain the conditions that corals have adapted to in this zone.
- Define lagoon and explain the conditions that corals have adapted to in this area.
- Define reef crest and explain the conditions that corals have adapted to in this zone.
- Define algal ridge
- Define spur and groove reef.
- Define reef front/fore reef and explain the conditions that corals have adapted to in this zone.
- Define drop-off.
- Define back reef and explain the conditions that corals have adapted to in this zone.
- Label the vertical zones for each of the main types of coral reefs.

UNIT PROCEDURE

1. Show *Coral Reef Zones* YouTube video.
 - a. Complete **Watch It! Coral Reef Zones** student worksheet.
2. Teach *Unit 11: Reef Zonation - Background Information*.
 - a. Complete **Lesson 1: Modeling the Reef** student worksheet.
 - b. Complete **Lesson 2: GIS Mapping** student worksheet
3. Teach students how to read and critique blogs.
 - a. Complete **Read It! Let's Name the Zones** student worksheet.
4. Evaluate students using **Unit 11: Reef Zonation Quiz** (found online at www.lof.org/education/portal/quiz/reef-zonation-assessment-1/).
NOTE: User must be logged in.



READ IT!

LET'S NAME THE ZONES

INSTRUCTIONS:

1. Read *Let's Name the Zones*, a blog from our Austral Islands, French Polynesia mission (<http://www.lof.org/lets-name-the-zones-the-zones-the-zones-of-the-reefs-of-raivavae-and-tubuai>).
2. While reading the blog, take notes and connect it to your prior learning. Note things that you agree or disagree with. There is a space, below, for this.
3. Next, document what you like and dislike about this blog in the space below. Be sure to pay attention to things like style and tone, along with the content and visual design. Be sure to *explain* what it is that you do or do not like about each element.
4. Answer the questions.

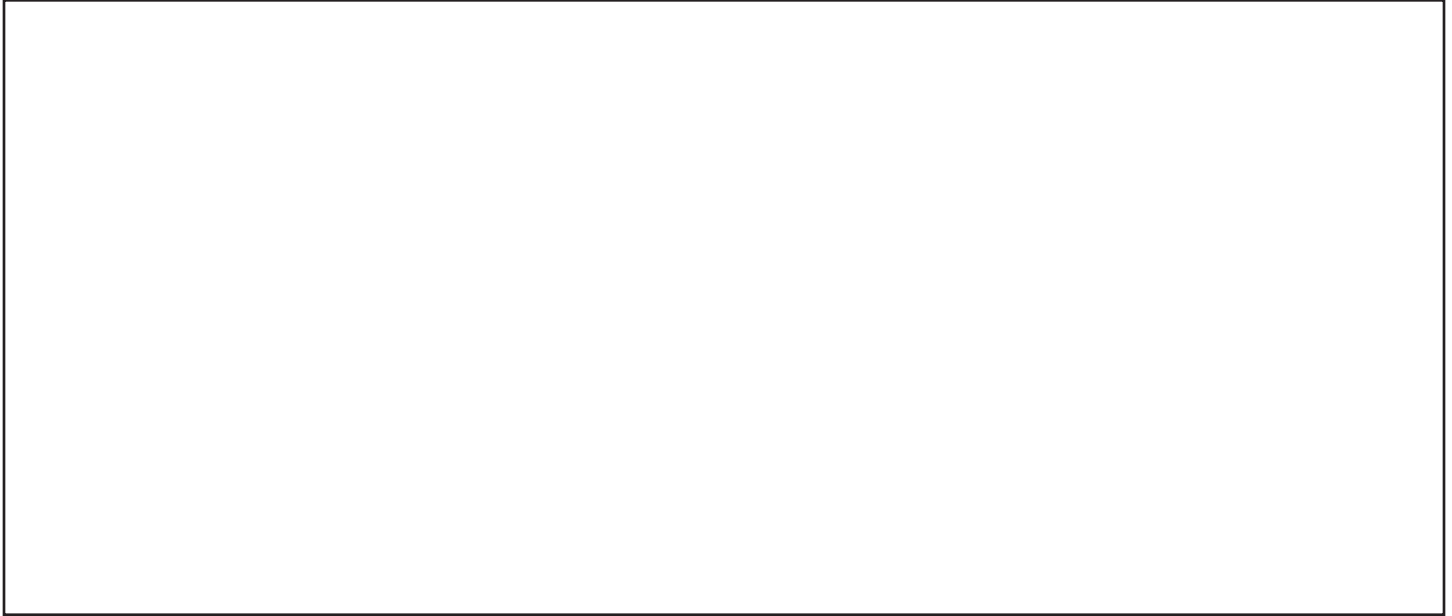
NOTES

LIKES

DISLIKES

1. What is the central idea of this blog?

2. Sketch the Austral reef (ignore grooves) described here. Don't forget to label it!



3. How does the Austral fore reef change as the water gets deeper? Cite specific textual evidence to support this.

4. Did the author fully support his claim? Explain why you think this.

5. *Massive*, *digitate*, and *encrusting* are specific vocabulary for the topic of this blog. Define them below.



