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Foundation

## STANDARDS

- **CCSS:** RST.9-10.2, 4, 5, 7, 8, 9, 10; RST.11-12.2, 4, 8, 10; SL.9-10.4; SL.11-12.4
- **NGSS:** HS-LS1-1
- **OLP:** 5.C.22

## ONLINE CONTENTS

- [Coral Anatomy Quiz](#)
- [Coral Anatomy Interactive](#) (at bottom of *Coral Anatomy* section) Use the interactive program to learn and explore more about the anatomy of a stony coral polyp.
- [What Are Corals? Video](#) Corals are animals. An individual coral's body, called a polyp, is mostly stomach, with a mouth on top. Its mouth is ringed with tentacles - but these just aren't any tentacles, they're lined with stinging cells, some filled with venom (neurotoxins) that paralyze their prey.
- [Form Fits Function Video](#) Ever heard the phrase form fits function? It's when the shape of something is designed for the job it is supposed to do. When applied to sea creatures it means their body parts are a good match for their role in the animal's survival.

# CORAL ANATOMY

This lesson is a part of the *Coral Anatomy* unit, which explains some of the characteristics and structures of corals, and how they function. Below is a summary of what is included in the entire unit.

## UNIT CONTENTS

### A. [Background Information](#)

- Coral Anatomy
- Form Fits Function

### B. Lessons

#### [Watch it! What Are Corals?](#)

- A worksheet to accompany the [What Are Corals?](#) video

#### [Watch it! Form Fits Function](#)

- A worksheet to accompany the [Form Fits Function](#) video

#### [Interactive Coral Polyp](#)

- A worksheet to label the structures of a coral polyp and describe their function

#### [Fitting the Function](#)

- A crossword puzzle to match the coral structures to their function

#### [Coral Anatomy Quiz](#)

- A matching quiz to match the coral structures to their function

#### [Coral Polyp Eco-Art](#)

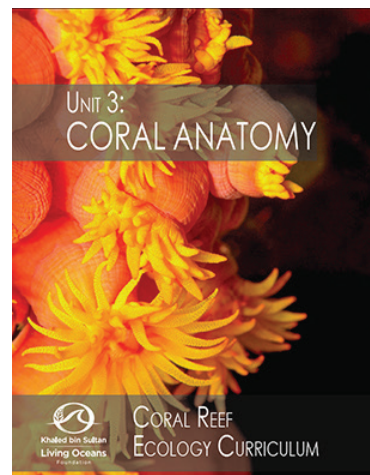
- An art project to design and build a coral polyp using recycled materials

#### [Form Fits Function](#)

- A lesson to design a poster of any plant or animal, labeling the parts and their functions

#### [Read it! Swimming Among Soft Corals](#)

- A worksheet to accompany the [Swimming Among Soft Corals of the Great Barrier Reef](#) field blog



# WATCH IT!

# WHAT ARE CORALS?

**INSTRUCTIONS:** Watch *What are Corals?* YouTube video (<https://youtu.be/Bn2xkJhte4>) and answer the following questions.

1. Are corals animals? \_\_\_\_\_

2. What are stony corals?

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3. What is the function of being *stony*?

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4. What is an individual coral called? \_\_\_\_\_

5. What structure allows corals to feed? \_\_\_\_\_

6. What is the structure called that exists in the coral's tentacles and aids in feeding?

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7. What do corals eat?

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8. Are all corals colonial? If not, provide an example to support your answer.

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9. What is the anatomical structure that allows corals to share nutrients?

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## WATCH IT!

# WHAT ARE CORALS?

### VIDEO TRANSCRIPT:

Corals are animals.

Stony corals are the kind that build coral reefs.

A reef is made in part of calcium carbonate, or limestone, secreted by the corals' bodies.

Every coral has a cup-shaped skeleton, which it sits on top while it's alive.

After it dies, its skeleton adds to the structure of the coral reef.

An individual coral's body, called a polyp, is mostly stomach with a mouth on top.

Its hungry mouth is ringed by tentacles.

And these aren't just any tentacles.

They're lined with stinging cells, some filled with venom, neurotoxins that paralyze their prey.

On the menu for corals are microscopic plankton, tiny fish, and everything in between.

Some, like mushroom coral, live alone and can grow up to 50 centimeters across.

Others, like brain coral, thrive in colonies of thousands of polyps, each measuring up to 10 centimeters in diameter.

Each coral polyp is an animal, but to survive they work like one big organism.

Some species' stomachs are connected by a special tissue called coenosarc, which allows them to share nutrients.

But it's the corals' durable skeletons that holds the colony together in all but the most turbulent seas.

# WATCH IT!

# WHAT ARE CORALS?

**INSTRUCTIONS:** Watch *What are Corals?* YouTube video (<https://youtu.be/Bn2xkJhte4>) and answer the following questions.

1. Are corals animals? Yes

2. What are stony corals?

**Corals that build reefs by secreting calcium carbonate or limestone.**

3. What is the function of being *stony*?

**Coral polyps sit on top of the stony calcium carbonate layer and when it dies, the calcium carbonate skeleton adds to the structure of the reef.**

4. What is an individual coral called? Polyp

5. What structure allows corals to feed? Tentacles

6. What is the structure called that exists in the coral's tentacles and aids in feeding?

**Nematocysts**

7. What do corals eat?

**Corals eat microscopic plankton and tiny fish.**

8. Are all corals colonial? If not, provide an example to support your answer.

**No, mushroom corals are an example of corals that are individual polyps that do not form colonies.**

9. What is the anatomical structure that allows corals to share nutrients?

**Coenosarc**