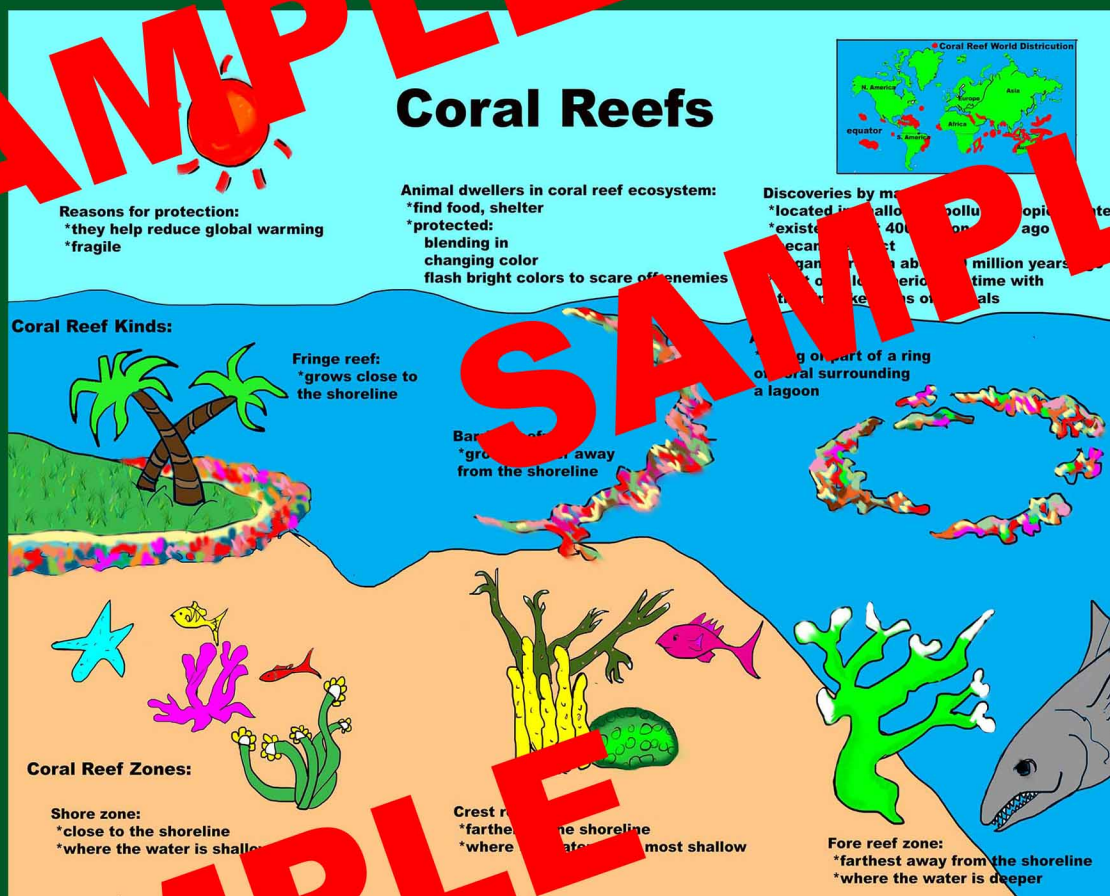


# Close Reading

Plus Writing Activities

## Coral Reefs By Gail Gibbons

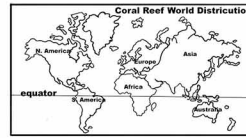


Teaching Environmental Science through  
Reading, Comprehension, Vocabulary,  
Posters, and Reflection

Qiang Ma



# Coral Reefs



Reasons for protection:  
\*they help reduce global warming  
\*fragile

Animal dwellers in coral reef ecosystem:  
\*find food, shelter  
\*protected:  
blending in  
changing color  
flash bright colors to scare off enemies

Discoveries by marine biologists:  
\*located in shallow, unpolluted tropical waters  
\*existed about 400 million years ago  
\*became extinct  
\*began to return about 50 million years ago  
\*built over long periods of time with the tiny skeletons of animals

## Coral Reef Kinds:

Fringe reef:  
\*grows close to the shoreline

Barrier reef:  
\*grows farther away from the shoreline

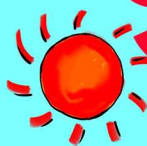
Atoll:  
\*a ring or part of a ring of coral surrounding a lagoon

## Coral Reef Zones:

Shore zone:  
\*close to the shoreline  
\*where the water is shallow

Crest reef zone:  
\*farther off the shoreline  
\*where the water is the most shallow

Fore reef zone:  
\*farthest away from the shoreline  
\*where the water is deeper



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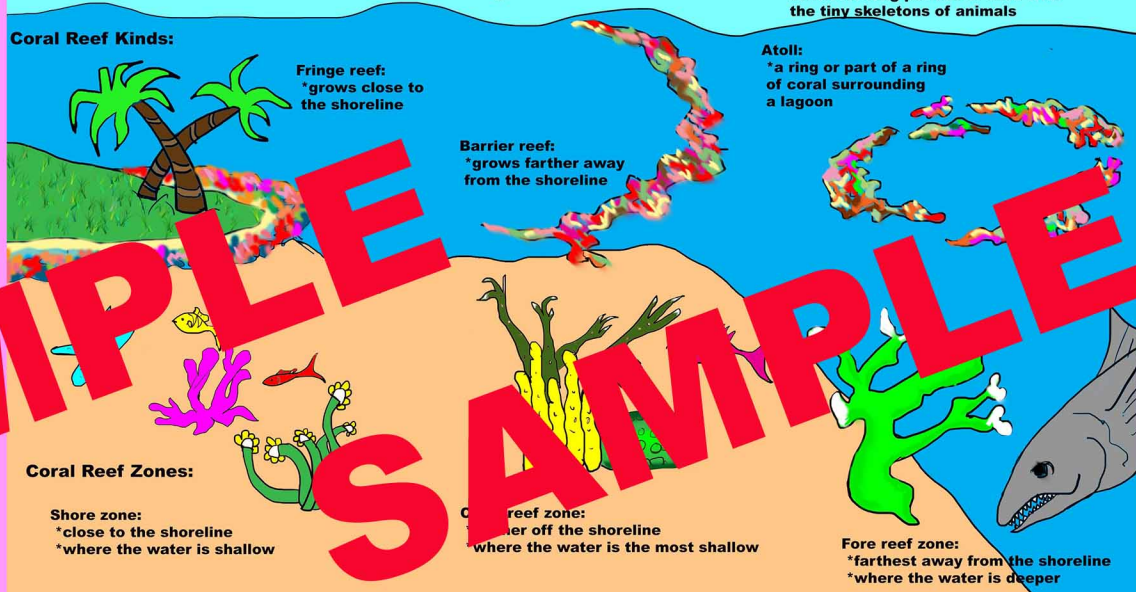
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## Coral Reefs Close Reading Organizer

Title: \_\_\_\_\_

Things to remember
Colors to mark the passage:
<ul style="list-style-type: none"><li>Highlight the title in yellow.</li><li>Underline topic sentence in green.</li><li>Circle the important words about coral reef in red.</li><li>Use close reading symbols throughout text.</li></ul>
CLOSE reading symbols:
<ul style="list-style-type: none"><li>Check Mark(✓) – understands story</li><li>Star (*) – something is important</li><li>Exclamation mark (!) – something new, something that is surprising</li><li>Question mark (?) – unsure, don't understand it</li></ul>

The main idea of these passages is to \_\_\_\_\_

\_\_\_\_\_

## Coral Reefs Close Reading Organizer

Title: Coral Reefs

Things to remember
Colors to mark the passage:
<ul style="list-style-type: none"><li>Highlight the title in yellow.</li><li>Underline topic sentence in green.</li><li>Circle the important words about coral reef in red.</li><li>Use close reading symbols throughout text.</li></ul>
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The main idea of these passages is to introduce the basic info of coral reefs.

What have you learned about coral reefs? I learned the three kinds of coral reefs and their differences.

## 1. Coral Reefs

Marine biologists believe coral reefs existed about 400 million years ago, when dinosaurs lived. At the same time that dinosaurs became extinct, coral reefs died out. About 50 million years ago coral reefs began to return and they continue to survive.

Coral reefs are found in shallow, unpolluted tropical water near the equator. They are fragile and need a special ecosystem to survive. The water temperature usually is between 64 Fahrenheit and 88 Fahrenheit.

Marine biologists tell us that coral reefs were built over long time with the tiny skeletons of animals called hard coral polyps. Hard coral polyps build up when the polyps attach themselves to the bottom. When they die, their skeletons form coral rocks, the hard base of the reef. More living polyps continue building on top of the dead polyps. Beautiful coral reefs teeming with life. Each kind of coral grows into a structure with its own shape and size. Each structure is called a coral colony.

There are three kinds of coral reefs. A fringing reef grows close to the shoreline. A barrier reef grows farther away from the shoreline. An atoll is a ring or part of a ring of coral surrounding a lagoon. Coral reefs need to be protected. They actually help reduce global warming by taking carbon dioxide from the air and creating oxygen for all to breathe. Coral reefs everywhere are fragile and should not be disturbed.

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Coral reefs need to be protected. They actually help reduce global warming by taking carbon dioxide from the air and creating oxygen for all to breathe. Coral reefs everywhere are fragile and should not be disturbed.

✓ ☆ ! ?

## 1. Text Dependent Questions

When did coral reefs start to exist and where are they found?	
Explain how coral reefs were built.	
What are the three kinds of coral reefs? Describe each kind.	
Why do coral reefs need to be protected?	

## 1. Text Dependent Questions

When did coral reefs start to exist and where are they found?	Coral reefs started to exist about 400 million years ago. They are found in shallow, unpolluted tropical water near the equator.
Explain how coral reefs were built.	Coral reefs were built over long time with the tiny skeletons of animals called hard coral polyps. Hard coral polyps build up when the polyps attach themselves to the bottom. When they die, their skeletons form coral rocks, the hard base of the reef. More living polyps continue building on top of the dead polyps. Beautiful coral reefs teeming with life. Each kind of coral grows into a structure with its own shape and size. Each structure is called a coral colony.
What are the three kinds of coral reefs? Describe each kind.	The three kinds of coral reefs are: <ul style="list-style-type: none"><li>a fringing reef grows close to the shoreline</li><li>a barrier reef grows farther away from the shoreline</li><li>an atoll is a ring or part of a ring of coral surrounding a lagoon.</li></ul>
Why do coral reefs need to be protected?	Coral reefs need to be protected because they actually help reduce global warming, and they are fragile and should not be disturbed.

## 2. Life within a Coral Reef

Some animals have different ways to survive in this environment. Here they find food, shelter, and protection.

Some sea creatures in a reef have symbiotic relationships that each directly benefits the other. These creatures help each other, protect each other, and sometimes provide places to live.

Different kinds of corals and sea life thrive in their own parts of a coral reef. Every reef can be divided into three zones. The amount of sunlight and the motion of the sea vary in the three different zones of a coral reef. Sea life is most abundant at a depth of about 30 feet of water. Each kind of coral will grow into a structure with its own shape and size. Each structure is called a coral colony.

Species of sea life have their own ways to protect themselves. Some are protected because their colors blend in with their backgrounds. Others can change colors to match their backgrounds. Still others flash bright colors to scare off their enemies. Coral reefs are a very busy place during the day. About two-thirds of all the reef creatures are active at this time. Others hide during the night.

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Species of sea life have their own ways to protect themselves. Some are protected because their colors blend in with their backgrounds. Others can change colors to match their backgrounds. Still others flash bright colors to scare off their enemies.

A coral reef is a very busy place during the day. About two-thirds of all the reef creatures are active at this time. Others hide during the day and feed at night.

✓ ☆ ! ?

## 2. Text Dependent Questions

What is symbiotic relationship?	
What are the three zones of coral reefs? Describe each zone.	
How do species of sea life protect themselves?	
Why is a coral reef a very busy place during the day?	

## 2. Text Dependent Questions

What is symbiotic relationship?	Symbiotic relationship means that each creature directly benefits the other.
What are the three zones of coral reefs? Describe each zone.	The three zones of coral reefs are: <ul style="list-style-type: none"><li>shore zone which is close to the shoreline</li><li>crest reef zone which is farther off the shoreline</li><li>fore reef zone which is farthest away from the shoreline.</li></ul>
How do species of sea life protect themselves?	Species of sea life have their own ways to protect themselves. Some are protected because their colors blend in with their backgrounds. Others can change colors to match their backgrounds. Still others flash bright colors to scare off their enemies.
Why is a coral reef a very busy place during the day?	A coral reef is a very busy place during the day because about two-thirds of all reef creatures are active at this time and others hide during the day.

## Vocabulary

marine biologist	
extinct	
ecosystem	
shoreline	
lagoon	
colony	

## Vocabulary

marine biologist	A scientist who studies ocean animals.
extinct	Died out, no longer existing.
ecosystem	A community in nature including all living and nonliving parts.
shoreline	The line where the land meets the sea.
lagoon	The body of water enclosed by an atoll.
colony	A group of animals of the same type living together.

## Getting Started: Coral Reef Close Reading

1. It is suggested to have the following items ready.

Items Needed	Teacher	Students
The book Coral Reefs by Gail Gibbons	V	
Lesson Plan	V	
Vocab Poster	V * Teacher can blow the original black and white sample into a poster.	
Info Organizer	V	V
Blank Paper for Drawing on Day 1	V	V
2 Reading Passages	V	V
2 Text Dependent Question Sets	V	V
1 Vocabulary	V	V
1 Coral Reefs Black Line Drawing Set	V	
1 Coral Reefs Color Drawing Set	* Teacher can blow the original black and white sample into a poster and color it.	* Students may create the poster in groups by using teacher's sample.
Teacher Sample Package: • 1 Coral Reefs Color Drawing with labels • 1 Vocab Poster with Post-it notes • 1 Info Organizer completed • 2 Reading Passages with marked answers • 2 Text Dependent Question Sets with answers • 1 Vocab Sheet with answers • 1 Coral Reef Writing Information Poster • 1 Teacher Sample Writing • 2 Student Individual sample Writings	* Let time for you to write. In reading, you are going to have a sample for students.	
Sharpie	V	V
Crayon/Markers	V	V
Post-It	*	

V: must, \*: optional

2. Read the lesson plan.
3. Look at the finished sample works included.
4. Photocopy 7 page package (1 empty page for drawing, Info Organizer, 2 Reading Passages, 2 Text Dependent Question Sets and Vocabulary for students. Make an extra set for the teacher to use.)
5. The lesson is designed as cross curriculum among ELA, Science/Environment/Geography, and Fine Arts, using close reading and GLAD strategies.

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I draw all the clipart myself for all the products in my store.

Thank you so much and I hope you enjoy this lesson.

