

e-future

DISCOVERY

6.2



Contents

Under the Sea

Discover in Reading

Unit 1	All about Corals	6
Unit 2	Oxygen-Efficient	12
Unit 3	Drifters of the Sea	18
Unit 4	Monsters of the Deep	24
	Review 1	30

- **What** are corals?
- **How** do sea animals breathe?
- **What** are plankton?
- **What** lives in the deep sea?

The Arts

Discover in Reading

Unit 5	Ambassador of Sound	34
Unit 6	More Precious than Gold	40
Unit 7	An Introduction to Shakespeare	46
Unit 8	Houses that Breathe	52
	Review 2	58

- **Who** was Dizzy Gillespie?
- **Why** was ultramarine blue so expensive?
- **What** types of plays did Shakespeare write?
- **What** are hanoks?

Travel & Tourism

Discover in Reading

Unit 9	Model of Efficiency	62
Unit 10	Urban Rails	68
Unit 11	The Trans-Siberian Railway	74
Unit 12	Floating Peaks	80
	Review 3	86

- **Why** did the Model T become so popular?
- **How** do subway systems benefit cities?
- **What** is the longest railway in the world?
- **What** are the floating mountains of Zhangjiajie?

The Future

Discover in Reading

Unit 13	Evolving Intelligence	90
Unit 14	A City of the Future	96
Unit 15	Detectives of the Future	102
Unit 16	The Visionary Storyteller	108
	Review 4	114

- **How** will AI evolve?
- **What** makes Singapore a futuristic city?
- **How** do futurists predict the future?
- **What** did Jules Verne predict about the future?



Under the Sea

Discover

What

Unit 1

All about Corals

Discover

How

Unit 2

Oxygen-Efficient

Discover

What

Unit 3


Drifters of the Sea

Discover

What

Unit 4

Monsters of the Deep

A vibrant underwater scene featuring a variety of marine life. In the foreground, three large Moorish Idol fish with long, thin, white appendages and yellow and black stripes swim towards the left. To their right, a large, flat, oval-shaped fish with numerous vertical yellow and blue stripes swims towards the left. In the background, several smaller fish with horizontal black and white stripes are visible. The bottom left corner shows a patch of coral. The entire scene is set against a deep blue background.

As humans, we see nothing but water and waves when we look out to the sea. But just below the surface exists a wonderful world full of life, color, and movement. Over 80% of all life on Earth lives under the sea. Some creatures are so tiny that they can barely be seen, and others live so deep that they have not yet been discovered. So, let's dive in and explore what lies beneath the water.

All about Corals



Discuss & Discover

1. Where do you think this photo was taken?
2. What animals do you see?
3. What are they doing?
4. Would you like to swim in a place like this? Why or why not?

Key Words

A Listen and repeat the words. 01

- | | | | |
|------------|-------------|-----------|------------|
| 1 abundant | 2 attach | 3 diverse | 4 organism |
| 5 skeleton | 6 socialize | 7 spread | 8 vibrant |

B Choose and write the correct words from A.

- 1 _____ : the connected bones inside an animal or person
- 2 _____ : including many different kinds of people or things
- 3 _____ : to cover a larger area
- 4 _____ : existing in very large amounts
- 5 _____ : to spend time with others
- 6 _____ : very bright and strong
- 7 _____ : a living thing
- 8 _____ : to connect or join together

C Choose and complete the sentences.

socialize attached skeletons vibrant abundant spread

- 1 Grandpa _____ a hook to the end of his fishing line.
- 2 I knocked over my cup, and orange juice _____ over the table.
- 3 Emily used a(n) _____ shade of orange to paint the sun.
- 4 The museum has a collection of fossils from different dinosaur _____.
- 5 Ben went to the party to _____ with his friends from school.
- 6 The _____ rain that fell during the storm caused a flood.

All about Corals

▶ 02

Coral reefs are very much like the rainforests of the ocean. They create a **diverse** environment that is full of life and color. So, what exactly are corals?

Corals are small animals called polyps. An individual polyp is a sea creature that looks like an upside-down jellyfish. Much like jellyfish, they have a soft body, a mouth, and stinging tentacles. Corals grow **skeleton**-like layers that protect their bodies. These layers also keep them **attached** to the ocean floor and connected to one another.

A coral's **vibrant** colors come from tiny algae living within them. During photosynthesis, these algae reflect different colors of light. This reflected light gives the coral color. In addition to color, algae also provide corals with a source of energy. They share the food they make during photosynthesis, and this helps the corals grow.

Discover in Reading

What are corals?

Check
Reading
Fluency

As corals grow and **spread**, they form coral reefs. Though coral reefs cover less than 1% of the ocean floor, they are home to nearly 25% of all ocean species. Like the trees in a rainforest, the interconnected structures of the corals offer safe spaces to rest or hide. Various sea creatures come to reefs to lay eggs, raise their young, find food, and **socialize**. And the cleaner fish that make their homes in reefs keep the environment healthy and clean.

Corals are one of the most important animals that live in the ocean. They provide other **organisms** with shelter and an **abundant** source of food. Corals also help keep our oceans clean. Just like our rainforests, we must also make an effort to protect our ocean's coral reefs.



algae

photosynthesis

simple, plant-like organisms that grow in or near water

the process by which plants make their own food

Reading Comprehension

● Choose the correct answers.

1 What is the passage mainly about?

- ☐ a different kinds of corals
- ☐ b the life cycles of corals
- ☐ c the importance of corals
- ☐ d animals that eat corals

2 What is NOT true about corals?

- ☐ a They are made up of polyps.
- ☐ b They are a kind of jellyfish.
- ☐ c They have stinging tentacles.
- ☐ d They grow on the ocean floor.

3 How do algae help corals?

- ☐ a by providing corals with food
- ☐ b by offering corals a safe place to hide
- ☐ c by keeping corals clean
- ☐ d by protecting corals from the sunlight

4 What is true about coral reefs?

- ☐ a Coral reefs make up 25% percent of the ocean floor.
- ☐ b Few sea creatures make their homes in coral reefs.
- ☐ c Coral reefs are filled with interconnected trees.
- ☐ d Many sea creatures go to corals to find food.

5 What can be inferred from the passage?

- ☐ a Corals are quickly disappearing from our oceans.
- ☐ b Corals float on the surface of the ocean.
- ☐ c Corals lose their color if the algae that grow on them die.
- ☐ d Corals lay eggs on the ocean floor.

Think & Write

1 What do corals form as they grow and spread?

2 Why must we make an effort to protect the corals in our oceans?

Graphic Organizer & Summary

A Complete the chart.

What Are Corals?

Corals

- Corals are _____ called polyps. ¹
- Corals grow _____ that protect their bodies. ²
- The layers keep corals attached to _____ and connected to one another. ³

Coral Reefs

- Corals form coral reefs as they _____. ⁴
- Coral reefs are safe places for sea creatures to lay eggs, _____, and socialize. ⁵
- Coral reefs also play an important role in keeping the ocean _____ ⁶

raise their young
the ocean floor

skeleton-like layers
healthy and clean

grow and spread
small animals

B Complete the summary.

Corals are sea _____ that look like upside-down jellyfish. They have soft bodies, a mouth, and stinging _____. Corals grow skeleton-like layers that _____ them to other corals. As the corals spread, they form coral reefs attached to the ocean floor. These coral reefs provide various sea creatures with a safe place to rest and _____. The reefs also play a valuable role in keeping the water in the _____ clean. This makes corals one of the most _____ animals in the ocean.

tentacles

important

connect

ocean

creatures

hide