

### About the Book

Text Type: Nonfiction/Informational Page Count: 16 Word Count: 615

#### Book Summary

Coral reefs are massive undersea communities where one quarter of all plants and animals in the ocean make their homes. Readers are invited to explore the diverse but fragile world of the coral reef. The author helps us learn more about why these unique communities are in need of our protection. Photographs, diagrams, captions, and a map support the text.

Book and lesson also available at Levels Q and U.

### About the Lesson

#### Targeted Reading Strategy

- Ask and answer questions

#### Objectives

- Ask and answer questions to understand text
- Identify the main idea and supporting details
- Identify vowel digraphs *ee*, *ea*, and *ie*
- Understand and use prepositions in sentences
- Arrange words in alphabetical order

#### Materials

Green text indicates resources available on the website

- Book—*Coral Reefs* (copy for each student)
- Chalkboard or dry erase board
- [KWLS/ask and answer questions, main idea and details, prepositions, alphabetical order worksheets](#)
- [Discussion cards](#)



Indicates an opportunity for students to mark in the book. (All activities may be demonstrated by projecting the book on interactive whiteboard or completed with paper and pencil if books are reused.)

#### Vocabulary

\*Bold vocabulary words also appear in a pre-made lesson for this title on [VocabularyA-Z.com](#).

- Content words:

Story critical: *atolls* (n.), *barrier reefs* (n.), *fringing reefs* (n.), *lagoon* (n.), *polyps* (n.)

### Before Reading

#### Build Background

- Write the phrase *coral reef* on the board. Ask students to share what they know about the phrase. Explain that coral reefs are home to millions of fish in the ocean. Ask students whether they know anything about how coral reefs are formed.
- Create a KWLS chart on the board and hand out the [KWLS/ask and answer questions worksheet](#). Review or explain that the *K* stands for knowledge we know, the *W* stands for information we want to know, the *L* stands for the knowledge we learned, and the *S* stands for what we still want to know about the topic. As various topics are discussed, fill in the first row (*K*) on the board with information students know about the topic. Have students complete the same section of their KWLS worksheet.

- Ask students what they would like to know about coral reefs. Have them fill in the second row (W) of their worksheet. Write their questions on the class chart.

### Preview the Book

#### Introduce the Book

- Give students their copy of the book. Guide them to the front and back covers and read the title. Have students discuss what they see on the covers. Encourage them to offer ideas as to what type of book it is and what it might be about.
- Show students the title page. Discuss the information on the page (title of book, author's name).

#### Introduce the Reading Strategy: **Ask and answer questions**

- Discuss how having prior knowledge about a topic, and asking and answering questions while reading, can help readers understand and remember the information in a book.
- Direct students to the front and back covers of the book again, and have them study the photographs. After previewing the covers and title, use them to model asking questions.  
*Think-aloud: I can use the cover and title of the book to think of questions I would like to have answered about coral reefs. For example, I see lots of little fish swimming around different colorful designs. It seems as though I'm looking at a coral reef in the ocean. I wonder how a coral reef is formed. I'll have to read the book to find out. I'll write this question on the chart.*
- Have students look through the book and read the section titles. Have them write any questions they have, based on the covers and section titles, in the W row of their KWLS worksheet.
- Have students preview the rest of the book, looking at the photographs and diagrams. Show students the glossary and point out that previewing the glossary can help them think of other questions to ask about coral reefs. Have them add any additional questions they might have to their KWLS worksheet. Invite students to share their questions aloud. Write shared questions on the class chart.
- As students read, encourage them to use other reading strategies in addition to the targeted strategy presented in this section.

#### Introduce the Comprehension Skill: **Main idea and details**

- Write the following list of words on the board: *river, ocean, lake, stream*. Ask students to describe what these words refer to (different bodies of water). Point out that the definitions of these words help to identify the main idea. (There are many different types of bodies of water.) The words *river, ocean, lake*, and *stream* are the details that support this main idea.
- Explain that sometimes the amount of information about a topic is so large that it is grouped into sections, each section with its own main idea.
- Read page 4 aloud to students. Model identifying the main idea and details.  
*Think-aloud: As I read page 4, most of the sentences mention something about coral reefs. This page contains information about reefs being very busy places, with millions of plants and animals living in and around it. I will underline this information. The sentences also mention that coral reefs are made up of groups of tiny animals, most of which are smaller than a pea. Based on what I've read, I think the main idea of the section is: Coral reefs are made up of groups of tiny animals and are very busy places where millions of plants and animals live.*
- Write the main idea on the board. Ask students to identify the details from the book that support this main idea (many types and shapes of corals; polyps; smaller than a pea; and so on). Write these details on the board.

#### Introduce the Vocabulary

- Write the following words from the content vocabulary on the board: *atolls, lagoon, and polyps*.
- Give groups of students three pieces of blank paper. Have them write or draw what they know about each word. Create a definition for each word using students' prior knowledge.

- Review or explain that the glossary contains a list of vocabulary words and their definitions. Model how students can use the glossary or a dictionary to find a word's meaning. Have them locate the glossary at the back of the book. Invite a volunteer to read the definition for *polyps* in the glossary. Have students compare the definition with their prior knowledge of the word. Then have them follow along on page 4 as you read the sentence in which the word *polyps* is found to confirm the meaning of the word. Repeat the exercise with the remaining vocabulary words.
- Invite students to review the photograph on the cover. Have them write a short paragraph about coral reefs, utilizing all three vocabulary words. Repeat the activity after reading the book to check for student understanding of the vocabulary.

### Set the Purpose


- Have students think about what they already know about coral reefs as they read the book to find answers to their questions, and write what they learned in the *L* column of their KWLS chart. Remind them to think about the main idea and details of each section as they read.

### During Reading

#### Student Reading

- **Guide the reading:** Have students read from page 5 to the end of page 8. Remind them to look for information about coral reefs that will answer questions on their KWLS worksheet. Encourage students who finish early to go back and reread.
- When students have finished reading, have them circle any questions on their KWLS worksheet that were answered and add any new questions that were generated.
- Model answering a question and filling in the third column (*L*) of the KWLS chart.  
*Think-aloud: I wanted to know how a coral reef is formed. I found out that coral reefs are made up of groups of tiny animals called polyps. I also learned that most polyps are smaller than a pea, and that thousands of polyps can live on one piece of coral. I will write this information on my chart. I wonder what can destroy or harm coral reefs. I will write this question on my chart.*
- Have students write answers to circled questions in the *L* column of their KWLS worksheet and additional questions they raised in the *W* column. Invite them to share the information they learned and the questions they generated as they read the book. Record shared responses on the class KWLS chart.
- Model identifying the main idea and details.  
*Think-aloud: As I read the section titled "A Busy Home Under Water," most of the sentences mentioned something about thousands of fish living on reefs. I read that the fish are all sizes, shapes, and colors, and that they depend on the reef for food and safety. I will underline this information. I also read that shrimp, lobster, crab, and starfish eat on reefs, and that a hole in the reef makes a good home for an eel. I will underline this information, too. Based on what I've read, I think the main idea of the section is: Thousands of animals of all shapes and sizes live, eat, and hide on reefs.*
- Write the main idea on the board. Ask students to identify details that support this main idea (a safe home; shrimp, lobster, crab, and starfish; and so on). Write these details on the board.
- **Check for understanding:** Have students read pages 9 and 10. Have them write answers they found while reading in the *L* column of their KWLS worksheet and additional questions they raised in the *W* column. Invite them to share the information they learned and the questions they generated as they read the book. Record shared responses on the class KWLS chart.
- Invite students to share the important details they identified in the section titled "Where Do Corals Live?" Write these details on the board. Have students work with a partner to identify the main idea from these details. (*Fringing reefs, barrier reefs, and atolls all need certain living conditions to stay healthy.*) Discuss their responses as a class and write the main idea and supporting details on the board.

- Have students read the remainder of the book. Remind them to look for and write answers to their KWLS worksheet questions. As they read, encourage them to add new questions they might have to their worksheet.

 Have students make a question mark in their book beside any word they do not understand or cannot pronounce. Encourage them to use the strategies they have learned to read each word and figure out its meaning.

## After Reading

- Ask students what words, if any, they marked in their book. Use this opportunity to model how they can read these words using decoding strategies and context clues.

## Reflect on the Reading Strategy

- **Think-aloud:** *I wanted to know what could destroy or harm coral reefs. I learned that fresh water, dirt and debris, and heavy waves can easily damage reefs. I learned that diseases caused by fast-growing bacteria damage reefs, as well as humans using explosives, boat gas, and oil. I will write this information on the chart.*
- Ask students to share questions they added to their KWLS worksheet while reading, and ask them what questions were answered (or not answered) in the text.
- Reinforce that asking questions before and during reading, and looking for the answers while reading, keeps readers interested in the topic. It also encourages them to keep reading to find answers to their questions and helps them understand and remember what they have read.
- Point out to students that all of their questions may not have been answered in this text. Brainstorm other sources they might use to locate additional information to answer their questions. Invite students to fill in the final row (S) with information they would still like to know about coral reefs.

## Reflect on the Comprehension Skill


- **Discussion:** Discuss how stopping to review the important details helped students remember the facts and better understand the information in the book. Ask them to use the important details they identified to confirm or refine the main idea.
- Have students reread pages 14 and 15, looking for supporting details about the main idea of the section. Point out that the section title helps to identify the main idea (protecting coral reefs). Write details about this main idea on the board (page 14: valuable, protect coasts from storms and floods, world's supply of fish, made into medicines; page 15: many countries try to protect, written laws and rules, people do not always follow). Ask students how this information supports the main idea.
- **Independent practice:** Introduce, explain, and have students complete the [main-idea-and-details worksheet](#). If time allows, discuss their responses.
- **Enduring understanding:** In this book, you learned about the diversity and fragility of coral reefs. Now that you know this information, how does it make you feel about protecting them? Who and what would benefit from such protection?


## Build Skills

### Phonics: Vowel digraphs ee, ea, and ie

- Have students look at the cover of the book. Ask them to tell what they see (a coral reef). Write the word *reef* on the board and point to the letters ee. Tell students that the letters e and e together stand for the long /e/ vowel sound they hear in the middle of the word *reef*.
- Explain that the ee letter combination is one of the letter combinations that stand for the long /e/ sound. The other combinations are ea and ie. Tell students that these combinations of letters together are called *vowel digraphs*.


- Write the words *eel* and *AI* on the board and say them aloud. Ask students which word contains the same vowel sound as in *reef*. Make sure students can differentiate between the two vowel sounds. Give other examples if necessary.
- Ask students to name other words with the long /e/ vowel sound as in *reef*. Write each example on the board and invite volunteers to circle the vowel digraph in each word.

 Have students turn to page 13. Instruct them to find and circle the word *leak*. Write the word *leak* on the board. Point out the letter combination that stands for the long /e/ vowel sound and ask students to blend the letters e and a together to make the same vowel sound as in *reef*. Point out that the long /e/ vowel sound comes in the middle of this word. Next, run your finger under the letters as you blend the three sounds in *leak*: /l/ea/k/. Point out that even though there are four letters, only three sounds are blended together to form the word. Then have students blend the word aloud with you as you run your finger under the letters.

 Repeat the blending activity with the words *disease*, *weeks*, and *piece*. Take one word at a time, pointing out the letter combinations that stand for the long /e/ vowel sound. When students have blended the words, ask volunteers to come to the board and circle the vowel digraph in each word. Have a student point to each vowel digraph as the rest of the group says the sound.

## Grammar and Mechanics: **Prepositions**

- Explain that *prepositions* are words that show a relationship between things. They provide information about *where*, *when*, *how*, *why*, and *with what* something happens. For example, in the sentence *I'll do this after lunch*, the word *after* is a preposition that provides information about *when* something happens.
- Ask students to turn to page 7. Write the following sentence from the book on the board: *Shrimp, lobster, crab, and starfish feed around reefs*. Point to the word *around*. Have a volunteer explain how the preposition is used in this sentence (it explains where they eat).
- Explain that prepositions are also defined as relationship indicators; they explain the relationship of a subject to the rest of the sentence. Have a volunteer draw a fish on the chalkboard. Have another volunteer draw a piece of coral in front of the fish. Write the following sentences on the board: *The fish goes \_\_\_\_\_ the reef. The fish is \_\_\_\_\_ the reef.*
- Next, draw a line from the fish *over*, *under*, *through*, *beside*, and *to* the reef, one at a time. Have a volunteer come to the board and write each preposition in the correct sentence.

 **Check for understanding:** Have students look through the text and circle examples of prepositions. Record on the board the prepositions students identify in the book. Discuss the type of information each preposition provides (how, when, why, and so on) and how each one links the words in the sentence.

- **Independent practice:** Introduce, explain, and have students complete the [prepositions worksheet](#). If time allows, discuss their responses.

## Word Work: **Alphabetical order**

- Review or explain the process of putting a list of words in alphabetical order. Remind students that if the first letter of two words is the same, they must compare the next two letters instead.
- Write the words *coral* and *reef* on the board. Have a volunteer explain which word would appear first in alphabetical order (*coral*) and why (because c comes before r in the alphabet).
- Write the words *algae* and *atolls* on the board. Point out that the words begin with the same letter (a). Ask a volunteer to tell which word would appear first in alphabetical order and to explain his or her thinking (*algae*, because the second letter, l, in *algae* comes before the second letter, t, in *atolls*).

- Write the words *created* and *create* on the board. Have a volunteer explain which word would appear first in alphabetical order (*create*) and why. Point out that all of the letters in *created* and *create* are the same until the final letter *d* in the word *created*. Point out that because there are no other letters at the end of *create*, it comes first in alphabetical order.
- **Check for understanding:** Write the words *plants* and *pants* on the board. Have students write the words in alphabetical order and explain their thinking on a separate piece of paper. Discuss their answers aloud, pointing out that it is necessary to examine the second letter in each to correctly alphabetize the words.
- **Independent practice:** Introduce, explain, and have students complete the [alphabetical order worksheet](#). If time allows, discuss their responses.

## Build Fluency

### Independent Reading

- Allow students to read their book independently. Additionally, allow partners to take turns reading parts of the book to each other.

### Home Connection

- Give students their book to take home to read with parents, caregivers, siblings, or friends. Have students share their KWLS worksheet with someone at home, explaining how it works and what they learned.

## Extend the Reading

### Informational Writing and Art Connection

Remind students that this book informs readers about three different types of coral reefs: fringing reefs, barrier reefs, and atolls. Have students choose one to research further. Provide print and Internet sources for students to find out more about their chosen coral reef. Citing information from their research and the book, have them write a report. Instruct students to include at least three sections, including an introduction and conclusion. Encourage them to add illustrations or photographs to their report. Require an error-free final copy and make a front and back cover. Either bind each report separately or bind all of the reports together to make a class book with its own front and back cover.

Visit [Writing A-Z](#) for a lesson and leveled materials on expository report writing.

### Science Connection

Take a class trip to an aquarium or a tropical fish store to view coral firsthand. Have students make observations about how tropical fish and coral live and interact with other marine animals. Have small groups collectively prepare an oral report to share with the class. Require them to create a poster to use as a visual aid.

### Skill Review

[Discussion cards](#) covering comprehension skills and strategies not explicitly taught with the book are provided as an extension activity. The following is a list of some ways these cards can be used with students:

- Use as discussion starters for literature circles.
- Have students choose one or more cards and write a response, either as an essay or as a journal entry.
- Distribute before reading the book and have students use one of the questions as a purpose for reading.
- Cut apart and use the cards as game cards with a board game.
- Conduct a class discussion as a review before the book quiz.



**Assessment****Monitor students to determine if they can:**

- consistently ask relevant questions about a topic prior to and during reading; locate answers to their questions in text and write them on a worksheet
- identify the main idea and supporting details to better understand the text through discussion and on a worksheet
- identify and recognize the long /e/ vowel sound in words with vowel digraphs *ee*, *ea*, and *ie*
- correctly identify and use prepositions during discussion and on a worksheet
- understand the process of arranging words in alphabetical order during discussion and on a worksheet

**Comprehension Checks**

- [Book Quiz](#)
- [Retelling Rubric](#)