

About the Book

Text Type: Nonfiction/Informational Page Count: 24 Word Count: 1,715

Book Summary

Readers learn the difference between a hurricane, a typhoon, and a severe tropical cyclone. The book also explains how hurricanes are formed, where they come from, and where they occur most often in the world. One section focuses on predicting and preparing for hurricanes. Photographs, maps, and diagrams support the text.

About the Lesson

Targeted Reading Strategy

- Connect to prior knowledge

Objectives

- Use the reading strategy of making connections to prior knowledge
- Identify cause-and-effect relationships in nonfiction text
- Recognize adverbs used in text
- Understand how to read numbers and abbreviations

Materials

Green text indicates resources available on the website

- Book—*Hurricanes* (copy for each student)
- Chalkboard or dry erase board
- Cause and effect, adverbs, numbers and abbreviations worksheets
- Discussion cards



Indicates an opportunity for students to mark in the book. (All activities may be demonstrated by projecting 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: **evacuate** (v.), **eye** (n.), **eyewall** (n.), **intensity** (n.), **tropical depression** (n.), **tropical storm** (n.)

Enrichment: **air pressure** (n.), **Caribbean** (adj.), **chaotic** (adj.), **condenses** (v.), **disperse** (v.), **hurricane watch** (n.), **satellite** (n.), **storm surge** (n.), **structure** (n.), **sustained** (adj.), **tropical** (adj.)

Before Reading

Build Background

- Ask students to tell what they know about hurricanes. Discuss what students know about hurricanes and how they are formed. Discuss any recent hurricanes students may remember, including their names, their locations, and the types of damage they caused.

Preview the Book

Introduce the Book

- Give students a copy of the book. Have them preview the front and back covers and read the title. Have students discuss what they see on the covers. Then invite them to offer ideas as what kind of book this is and what it might be about.

Introduce the Reading Strategy: **Connect to prior knowledge**

- Model connecting to prior knowledge.
Think-aloud: The picture and title of this book remind me of a TV show I watched about an island that was hit by a severe hurricane. I remember the devastation that the storm caused for the people on that island. Because I already know some interesting things about hurricanes, I'm looking forward to learning even more about them. I can turn to the glossary to see what new words about hurricanes I might learn in this book.
- Direct students to the glossary. Remind them that the glossary is an alphabetized list of words that appear in the text, along with their definitions and page numbers so the reader can locate the word in the text. After reviewing the glossary, model using it as a way to make connections to prior knowledge. For example, say: *The first entry, air pressure, makes me think about what I already know about how hurricanes are created.* Ask students to share what they might know about the air pressure inside a hurricane. Ask what page the glossary gives to help readers find more information about air pressure (page 8).
- Have students preview the rest of the book, looking at photos, maps, and diagrams. Point out the table of contents and index, and remind students that these features can help them make connections to what they already know.
- As students read, encourage them to use other reading strategies in addition to the targeted strategy presented in this section.

Introduce the Vocabulary

- Remind students of the strategies they can use to work out words they don't know. For example, they can look for base words, prefixes, and suffixes. They can use the context to work out meanings of unfamiliar words.
- Review context clues and how to use them to find a word's meaning. Have students find the bold word *evacuate* on page 5. Tell them to first look for a clue to the word's meaning in the same sentence. Explain that they may not always find all context clues in the sentence that contains the unfamiliar word, and that other information in the paragraph often offers more explanation.
- Model how students can use the glossary or a dictionary to find the word's meaning. Have a volunteer read the definition for *evacuate* in the glossary. Have students follow along on page 5 as you read the sentence in which *evacuate* is found to confirm the meaning of the word. Preview other vocabulary, such as *eyewall*, *tropical depression*, and *intensity*, in a similar fashion before students begin reading.


Set the Purpose

- Have students think about what they already know about hurricanes as they read the book to learn more about the topic.

During Reading

Student Reading

- **Guide the reading:** Have students read to page 12. Tell them to look for facts that tell about important events that occur when hurricanes are formed. Encourage them to go back and reread if they finish before everyone else.

- Have students share the important facts they identified. Model making connections to prior knowledge.
Think-aloud: I understood how important it was for the people in Florida to board up windows and stock up on water, food, and batteries when they heard a hurricane was coming. I remember seeing the destructive wind and rain hit buildings when I watched the show on hurricanes. It was amazing how hurricanes could cause so much damage so quickly.
 - Ask students why people who have experienced a hurricane would work hard to prepare for their safety in the event of another hurricane approaching. Encourage them to use their experience and what they may have read or seen on television to explain their answers.
 - Have students read the rest of the book. Have them continue recording important information about hurricanes. Remind them to think about what they already know about the topic as they read.
-  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

- Discuss how making connections between information they read and what they already know keeps them actively involved and helps them remember what they have read.

Teach the Comprehension Skill: Cause and effect

- **Discussion:** Ask students what they think the author's purpose was for writing the book and what they might have learned about hurricanes that they didn't already know.
- **Introduce and model:** Discuss cause-and-effect relationships. Explain that a *cause* is an event that makes something happen, and the *effect* is what happens because of, or as a result of, the event. For example, if the temperature drops below 32 degrees Fahrenheit, a puddle will freeze. The freezing temperature is the *cause*, and the frozen puddle is the *effect*.
- To illustrate a cause-and-effect relationship from the text, have students turn to page 8. Ask them to name the cause of a storm surge (high winds and low air pressure raising the level of the sea). Ask them to describe the effects of the raised sea level (flooding and property damage).
- **Check for understanding:** Have students read page 4 to find the cause of the hurricane watch (Hurricane Frances moving toward the community) and the effect of the warning (people boarding up windows and stocking up on supplies). Allow students to share their findings.
- **Independent practice:** Have students practice identifying cause-and-effect relationships by completing the [cause-and-effect worksheet](#). When they have finished, have students discuss their work and explain their answers.
- **Extend the discussion:** Ask students how *Hurricanes* changed what they know about these tropical storms. Discuss whether students think that the world should invest in additional scientific studies to learn more about hurricanes, cyclones, and typhoons. Invite them to share their opinions and ideas.

Build Skills

Grammar and Mechanics: Adverbs

- Review or explain that *adverbs* are words that describe verbs or adjectives. Adverbs express the *time*, *manner*, or *degree* in which a verb occurs. They usually tell how something happens. They may also tell *how often*, *how many*, or *how much*.

- Write the question *How?* on the board. Have students turn to page 7 and read aloud this sentence: *The upward-moving air rapidly cools, and rain begins to fall.* Ask students how the air cools (*rapidly*). Explain that *rapidly* is an adverb that describes the verb *cool*. Ask students what the root or base word of *rapidly* is (*rapid*). Explain that many adverbs are formed by adding *-ly* to the end of a word.
- Write the question *When?* on the board. Have students turn to page 7 and read aloud this sentence: *Soon the eye will move, and then the sudden force of the other side of the storm will hit.* Ask students when the eye will move (*soon*). Tell students that *soon* is an adverb that describes the verb *move*. Remind students that most, but not all, adverbs end in *-ly*.
- Write the words *slow*, *careful*, and *sudden* on the board. Have volunteers add *-ly* to each base word and use the resulting adverb in an oral sentence.
- **Check for understanding:** Have students work in pairs to list at least 15 adverbs in the book and identify the verb or adjective that each adverb describes. When students are done, have students share and discuss their list.
- **Independent practice:** Introduce, explain, and have students complete the [adverbs worksheet](#). When all students have finished, read and discuss the correct answers.

Word Work: **Numbers and abbreviations**

- Point out that this book uses metric and imperial measurements. Explain that the *metric system* is generally the preferred method of measurement in science-oriented publications, and the imperial system is commonly used in the United States, the United Kingdom, and the British Commonwealth countries. The imperial system is also called the English or British system; it is the primary alternative to the metric system.
- Direct students to the first paragraph on page 7. Ask them to find the numbers or words that give the measurement of rainfall (*20 millimeters [0.78 in.]*). Review or explain that when reading the numbers in parentheses aloud, the decimal is read as *point*. Ask a volunteer to explain the *in.* label after the number. (It is the abbreviated form of *inches*.) Explain that an *abbreviation* is a *shortened form of a word*. Practice saying the entire measurement aloud as a group: *zero point seven eight inches*. Point out that the numbers *seven* and *eight* are said separately, not as *seventy-eight*.
- Direct students to the first paragraph on page 14. Ask them to find the measurement for the speed of the winds (*62–119 kilometers per hour [39–74 mph]*). Review or explain that when reading these measurements aloud, the dash is read as *to*. Ask students what the letters in the abbreviation *mph* stand for (*miles per hour*). Practice saying the measurement in parentheses with the class: *thirty-nine to seventy-four miles per hour*.
- Continue this procedure with examples on page 16 (*3 meters [10 ft.]* and *5–10 mi.*), if time allows.
- **Check for understanding:** Write the following examples on the board and ask volunteers to read them aloud:
 - 5 ft.
 - 155 mph
 - 6–11 mi.
 - 0.89 in.
 - 111–130 mph
 - 5.39 in.
 - 542 ft.
 - 6.25 mi.
- **Independent practice:** Introduce, explain, and have students complete the [numbers-and-abbreviations worksheet](#). Discuss answers aloud when they have completed their work.

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.

Extend the Reading

Writing and Science Connection

Provide print and Internet resources for students to research hurricanes, typhoons, and severe tropical cyclones. Have them find information about the sizes, names, and characteristics of these severe storms. Have students write a research paper that includes at least five facts not included in *Hurricanes*.

Visit WritingA-Z.com for a lesson and leveled materials on informational writing.

Science Connection

Provide print and Internet resources for students to research the nature of hurricane winds. Challenge them to find the answer to the question: *Why do winds rotate counterclockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere?* Instruct them to be prepared to support their answer with at least two sources.

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:

- use the reading strategy of connecting to prior knowledge to understand nonfiction text
- recognize and explain cause-and-effect relationships
- recognize and understand the use of adverbs in the text
- understand and fluently read numbers and abbreviations

Comprehension Checks

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