

About the Book

Text Type: Nonfiction/Informational **Page Count:** 28 **Word Count:** 1,801

Book Summary

Severe Weather explains the ways in which temperature, air pressure, wind, and moisture combine to form various types of weather. The characteristics of severe weather (thunderstorms, tornadoes, typhoons, cyclones, and blizzards) are explained. An important section on safety precautions for different types of storms is also included. Dramatic photographs and explanatory illustrations enhance the text.

About the Lesson

Targeted Reading Strategy

- Ask and answer questions

Objectives

- Use the reading strategy of asking and answering questions while reading
- Understand and identify cause and effect relationships
- Use commas in a series or to set off introductory words
- Identify and use content words

Materials

Green text indicates resources available on the website

- Book—*Severe Weather* (copy for each student)
- Chalkboard or dry erase board
- **Cause and effect, commas, content vocabulary 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

- **Content words:**

Story critical: *air pressure (n.), atmosphere (n.), blizzard (n.), precipitation (n.), temperature (n.), water vapor (n.)*

Enrichment: *absorbed (v.), avalanche (n.), dust devil (n.), hail (n.), waterspout (n.), whiteout (n.)*

Before Reading

Build Background

- Involve students in a discussion about weather. Have them tell their experiences with different types of severe weather. Ask if they know why or how these storms occur.
- Create a KWL chart on the board. Review or explain that the *K* stands for what we know, *W* stands for what we want to know, and *L* stands for what we learned. Fill in the first column with information students know about severe weather and its causes.

Preview the Book

Introduce the Book

- Give students a copy of the book and have them preview the front and back covers and read the title. Have students discuss what they see on the covers and offer ideas as to what kind of book this is and what the author may want us to know.
- Show students the title page. Talk about the information that is written on the page (title of book, author's name, illustrator's name).
- Tell students to turn to the table of contents on page 3. Remind students that the table of contents provides an overview of what the book is about.

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

- Tell students that good readers often ask questions about a book before they start reading, and then they look for the answers to their questions as they read. This strategy helps readers understand and remember what they read.
- While still reviewing the table of contents, model asking and answering questions.
Think-aloud: *The second section in the book is titled "Building Blocks of Weather." I'm not sure what the "building blocks" are, so I'll write that question on the KWL chart—"What are the building blocks of weather?" I'll have to read the section to find the answer to my question.*
- Have students look at the other section titles. Write any questions they have about weather, based on the covers and table of contents, in the *W* column of the KWL chart.
- Have students preview the rest of the book, looking at the sidebar text, photos, the chart on page 13, and the glossary. Point out the bulleted information on pages 24-27 and explain that the bullets are used to draw attention to each important sentence. Add any questions from these pages to the *W* column.
- 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 sound out words they don't know. For example, they can use what they know about letter and sound correspondence to figure out the word. They can look for words within words and prefixes and suffixes. They can use context clues within a sentence to work out meanings of unfamiliar words.
- Model how to apply word-attack strategies. For example, have students find the bold word *precipitation* on page 12. Tell students that they can look at the letters the word begins with to sound out the first part of the word. Tell students to use what they know about syllables and vowels (one vowel sound per syllable) to sound out the rest of the word. Write the word parts on the board, sounding them out (*pre/cipli/ta/tion*). Model how they can use context clues to figure out the word's meaning. Show students that by reading past the word they are unfamiliar with, they will find a phrase that defines the word (water falling to the earth).
- Have students turn to the glossary on page 28. Have them read the glossary words and their definitions aloud. Next, have students turn to the pages indicated and read the sentence in which the glossary word appears. Use context clues in the surrounding sentences to work out unfamiliar vocabulary words, as necessary.


Set the Purpose

- Have students read the book to find answers to their questions about weather.

During Reading

Student Reading

- **Guide the reading:** Have students read to the end of page 12. Tell them to underline any important information about weather. Tell them they can go back and reread the pages if they finish before everyone else.

- When they have finished reading, ask students to tell what they underlined. Reinforce unfamiliar vocabulary by using words such as *atmosphere* and *air pressure* in the discussion. Circle any questions on the KWL chart that were answered by reading the section, and add any new questions you or students have. Model using the reading to answer a question written on the KWL chart. **Think-aloud:** *My first question was "What are the building blocks of weather?" I found out that there are four: temperature, air pressure, wind, and moisture. I think I understand what temperature, wind, and moisture are, but I'm not sure about air pressure. I know we read about it in the glossary, but I'm not sure how it affects weather. I'll add a question about it to the KWL chart: "How does air pressure affect weather?"*
 - Have students read the remainder of the book. Remind them to look for answers to the questions on the KWL chart or to think of other questions to add to it. Tell students to write additional questions in the page margins of their book.
-  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 learned the answer to my question, "How does air pressure affect weather?" on pages 9 and 10. Now I know that cold air is heavier than warm air. Cold air being pulled to the earth pushes the warmer air up. This motion causes wind.*
- Have students share any other questions they thought of while reading. Reinforce how asking questions and looking for the answers as they read keeps them involved in the reading process and helps them understand and remember what they have read.

Teach the Comprehension Skill: Cause and effect

- **Discussion:** Have students review the KWL chart and tell any other questions that were answered by reading the book. Have students explain what causes tornadoes, hurricanes, and blizzards (pages 18-23). Ask them to explain the effects types of severe weather can have on people. Tell students if they have questions that were not answered, they can look in other resources, such as science books or on the Internet.
- **Introduce and model:** Explain that many ideas and events are connected to each other. One thing causes, or makes, something else happen. For example, say: *Suppose my dog ate my homework. I might say, "I am going to do my homework again because my dog ate it."* Write the sentence on the board, and underline the word *because*. Explain that the *effect*, or what happened, usually comes before the word *because* and the *cause*, or the reason why something happened, usually comes after it. Explain that when the word *because* isn't used in the text, students can put it in for themselves by changing the sentence around and then checking to see if the cause and effect make sense.
- **Check for understanding:** Direct students to page 8 and read the paragraph aloud. After reading, ask: *What happens when the sun's rays strike more directly near the equator?* (the water and land around the equator get hotter). On the board demonstrate the cause-and-effect relationship: *The water and land around the equator get hotter because the sun's rays strike more directly near the equator.*
- **Independent practice:** Tell students to complete the [cause-and-effect worksheet](#). Discuss their answers.



Extend the discussion: Instruct students to use the inside cover of their book to write the type of severe weather that occurs most frequently in the area in which they live. Have them describe what that type of weather looks, feels, smells, and sounds like.

Build Skills

Grammar and Mechanics: **Commas**

- Tell students that introductory words, such as *no*, *yes*, *well*, *however*, *still*, *furthermore*, and *meanwhile* connect one sentence to the next. When writers begin a sentence with an introductory word, the word needs to be separated from the other words by a comma. Write the following sentence on the board: *No, I've never seen a tornado*. Tell students that the word *No* is an introductory word that needs to be set off by a comma. The introductory word doesn't change the meaning of the sentence.
- Review or explain that when writers use a series of items in a sentence, the words need to be separated by commas. Without the commas, the sentence is difficult to read and will not make sense. Write the following sentence on the board: *We saw rain hail and lightning*. Ask students to explain why this sentence doesn't make sense (there is no such thing as "rain hail"). Direct students to the second paragraph on page 5. Ask students to find the sentence in which a series of items has been separated with commas. (temperature, air pressure, wind, and moisture.)
- Write the following sentences on the board and ask individual students to mark the commas:
Yes it is beginning to rain.
I have my raincoat umbrella and boots.
Well let's run to the bus.
Furthermore tornadoes rarely last more than one-half hour.
- **Check for understanding:** Have students complete the [commas worksheet](#). Discuss their responses.

Word Work: **Content vocabulary**

- Tell students that most of the words in the book are used to tell about different types of weather and the forces that cause them. Provide opportunities for students to talk about difficult words, such as *atmosphere*, *avalanche*, and *precipitation*. If students are struggling with the content vocabulary and/or the words in the glossary, write the words on index cards to make flash cards. Use the cards to review difficult words by asking students to say each word on the card aloud and then use it in a sentence.
- **Check for understanding:** Have students complete the [content vocabulary worksheet](#).

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 Connection

Explain to students that they are going to write acrostic poems. Write the word *WEATHER* vertically on the board. Tell students that in an acrostic poem, the beginning letter of each line is used to make a word about the topic. Work with students to make an acrostic, such as the following:

Windy
Extremely dry
Angry winds blow
Tornadoes swirl
Heat rises
Ends suddenly
Rain starts

Brainstorm words students can use for their poems. Have them use their book or other books on weather to find descriptive words or phrases. Have them illustrate their poems. Display poems on a bulletin board titled "Weather Words."

Science and Social Studies Connection

Have students use print and Internet resources to research cases of extreme weather in different parts of the world, such as floods, droughts, blizzards, typhoons, or tsunamis. Ask students to tell the cause and effect, as well as how the weather affected the people who lived in the area.

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 strategy of asking and answering questions to understand nonfiction text
- understand and identify cause-and-effect relationships in nonfiction text; record the relationships on a worksheet
- use commas in a series and with introductory words
- Use content vocabulary words in conversation and to complete the worksheet

Comprehension Checks

- **Book Quiz**
- **Retelling Rubric**