

### About the Book

Text Type: Nonfiction/Informational Page Count: 20 Word Count: 1,176

### Book Summary

Tornadoes are exciting and terrifying; storm chasers know this firsthand. They place themselves in harm's way to study these often violent storms. Most storm chasers are scientists who hope to gather information about wind speed and direction in order to predict the path a tornado will travel. Readers will learn what storm chasers do, how tornadoes form, and what to do if a tornado is approaching. Photographs and scientific illustrations support the text.

### About the Lesson

#### Targeted Reading Strategy

- Ask and answer questions

#### Objectives

- Use the reading strategy of asking and answering questions
- Identify main ideas and details
- Recognize and form compound sentences
- Understand and use suffixes *-ist* and *-ful*

#### Materials

Green text indicates resources available on the website

- Book—*Storm Chasers* (copy for each student)
- Chalkboard or dry erase board
- Main idea and details, suffixes 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

Content words:

Story critical: *funnel clouds (n.), meteorologists (n.), supercell (n.), tornado warning (n.), tornado watch (n.), wall cloud (n.)*

Enrichment: *Doppler radar (n.), F-ratings (n.), image (n.), predict (v.), Tornado Alley (n.), waterspout (n.)*

### Before Reading

#### Build Background

- Ask students to tell what they already know about tornadoes and the people that study them. Ask them if they have ever heard the term “storm chaser,” and if so, to explain its meaning.
- Create a KWL chart on the board and fill in the first column with things students know about tornadoes and storm chasers. As a group, brainstorm some things students would like to know about the topic and fill in the second column.

### 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 it might be about.
- Have students turn to the table of contents and review its purpose with them. Read through the headings and ask whether they provide students with a better idea of what the book is about.

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

- Model asking questions while looking at the table of contents.  
*Think-aloud: When I don't know a lot about a topic, I can use the chapter titles in the table of contents to think of questions I'd like to have answered. For example, the first chapter is titled "Chasing the Wind." This makes me wonder who chases the wind and why they chase it. (Write your questions on the chart.)*
- Have students share any questions they have based on the table of contents or the covers of the book and add these to the second column.
- Have students preview the rest of the book. Show students the title page, photos, illustrations, sidebar text, and glossary. Draw students' attention to the charts on pages 8 and 9. Encourage students to use all of these as ways to think of questions to add to the KWL chart on the board.
- Show students the index. Review or explain that the index is an alphabetized list of topics with page numbers that tell where the reader can find information about different topics in the book. Tell students that they can use the index to find the answers to some of their questions. For example, they can look at the index to find out where in the book they should go to find out more about funnel clouds. Ask students to tell which pages mention funnel clouds.
- As students read, they should use other reading strategies in addition to the targeted strategy presented in this section.

#### Introduce the Vocabulary

- As students preview the book, point out any vocabulary that you feel may be difficult for them.
- Remind students of the strategies they can use to work out words they don't know. For example, they can use what they know about word parts and thinking about how the word is used in a sentence to work out the meaning of an unfamiliar word.
- Model how to apply word-attack strategies. Have students find the bold words on page 12 (*Doppler radar*). Remind them that they can use context clues in text to help figure out what a word means. Have students read the first sentence in the paragraph. Ask them to tell what Doppler radar is used for. Have them read the next 2 sentences and tell 3 other things about Doppler radar that helps them learn about wind.

#### Set the Purpose


- Have students read the book to find answers to their questions about storm chasers and tornadoes.

### **During Reading**

#### Student Reading

- **Guide the reading:** Have students read to the end of page 9. Tell them to look for facts about storm chasers and tornadoes that will answer their questions on the KWL chart. Have them underline important words or phrases in the book. If they finish before everyone else, they should go back and reread.

- When they have finished reading, have students tell what each chapter is about and the interesting facts they found. Circle any questions on the KWL chart that were answered and add any new questions students developed. Model answering a question on the KWL.  
*Think-aloud: I wanted to know who chases storms and why. I found out that people chase storms for different reasons. Photographers and filmmakers want to take pictures of the storms, while scientists and meteorologists hope to predict the direction the storm will travel in order to warn people and save lives. (Write what you learned on the KWL chart.)*
- Have students share questions they found the answers to while reading. Record their responses on the KWL chart.
- Tell students to read the remainder of the story. Remind them to look for answers to the other questions written on the KWL, or to think of other questions to add to it. Ask them to write down any questions they have in the page margins of their books and to underline any information that answers a question on the KWL.

 Tell the students to make a small question mark in their books beside any word they do not understand or cannot pronounce. These can be addressed in the discussion that follows.

### 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

- Have students share any other questions they had while they were reading. Discuss how asking questions and looking for the answers as they read keeps them actively involved in the reading process, and helps them understand and remember what they read.

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


- **Discussion:** Circle and discuss all of the questions on the KWL that were answered by reading the book. Add any additional questions to the KWL on the board. Explain that to find the answers to some questions students may have to consult other references.
- **Introduce and model:** Review or explain that many books are about one thing. Tell students that it is easy to tell what this book is about because the topic is the title of the book. Direct students to the table of contents. Explain that each chapter in this informational book contains a main idea and details about the main idea. Have students turn to chapter 2 (Tornado Alley). Explain that this chapter has a main idea and details. Ask students what they think the main idea of the chapter is based on the title (Tornado Alley, or where tornadoes are likely to occur). Ask students to go through the chapter again. Then have them name the states shown on the map that are in "Tornado Alley." Ask them to name other details that tell about Tornado Alley. Explain how identifying the main idea and supporting details in a chapter and developing and answering questions about what they've read can help them understand and remember what the book is about.
- **Check for understanding:** Have students turn to chapter 3 (Tornado Weather). Discuss the illustrations on pages 8 and 9 and ask students to look at the KWL to find questions that might be answered by the details shown in the illustrations. Have students share their findings.
- **Independent practice:** Have students practice locating the main idea and details in a chapter by completing the [main-idea-and-details worksheet](#). Discuss their answers when they're done.

 **Extend the discussion:** Instruct students to use the inside front cover of their books to list one of the questions on the KWL chart that was not answered by the book. Have them tell what reference(s) they might consult to find the answer.

### Build Skills

#### Grammar and Mechanics: Compound predicates

- Review or explain that two short sentences can be combined to form a new sentence if the subject in each sentence is the same. Tell students that writers often combine sentences in order to make their writing easier to read and understand.
- Write the following sentence from page 7 on the board: *The tornado traveled on the ground for 352 kilometers and lasted three and one-half hours.* Tell students that this is an example of a sentence formed from two shorter sentences that have the same subject. Have students identify the subject of the sentence, and ask volunteers to write each sentence separately (*The tornado traveled 352 kilometers. The tornado lasted three and one-half hours.*)
- Have students turn to page 12 and find a compound sentence. Tell them to circle the subject and underline each predicate (subject: Doppler radar; predicates: helps them determine the wind direction/find early signs of rapidly rotating air inside thunderstorms).
- Repeat the exercise above with the first sentence on page 18 (subject: storm chasers; predicates: take their jobs seriously/believe they have an important mission).

 Have students use the inside front cover of their book to write a sentence about storm chasers or tornadoes that has a compound predicate. Have them exchange books with a partner and identify the subject and predicates. Have students share their sentences with the group.

#### Word Work: Suffixes

- Review or explain that a suffix is a word part added to the end of a base word to change the meaning of the word. Tell students that the suffix *-ist* means “a person or thing that \_\_\_\_\_,” and that the suffix *-ful* means “full of \_\_\_\_\_.”
- Write the word *science*. Have a volunteer tell the meaning of the word or look it up in the dictionary. Write the word *scientist* on the board. Explain that the spelling of the word must be changed before the suffix *-ist* can be added to make a new word with a new meaning. Ask a volunteer to tell the meaning of the word (a person who studies science). Tell students that when the *-ist* suffix is added, the spelling of the base word may have to be changed.
- Write the word *care* on the board. Ask a volunteer to tell the meaning of the word (to pay close attention). Write the word *careful* on the board. Explain that the suffix *-ful* has been added to make a new word. Ask a volunteer to tell the meaning of the word (full of care).
- Check for understanding by writing the words *fear* and *science*. Have students tell which suffix should be added and whether or not a spelling change is needed.
- Give students the [suffixes worksheet](#). Have students cut out the words and form as many new words as possible. Tell them to write the words they create on the inside back cover of the book. Discuss the words students make.

### Build Fluency

#### Independent Reading

- Allow students to read their book independently or with a partner. Additionally, partners can 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**

Have students imagine they are storm chasers. Ask them to write a first-person story about where they are, what they see, and what they do during the storm. Have students revise, edit, and title their stories before sharing them with the group.

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

#### **Social Studies Connection**

Provide print and internet resources for students to research another type of destructive storm, such as a hurricane or tsunami. Have them read about how the storms form, how they are tracked, and the types of damage they create and compare it to what they read about tornadoes in the book. Have students share what they learned with the group.

#### **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 the topic prior to and during reading; locate answers to the questions in the text and understand that not all questions will be answered from this one source
- identify the main idea correctly for each chapter and the appropriate supporting details; organize the information on a fact chart
- accurately recognize and write compound sentences in which subjects have been combined
- understand and correctly form new words using the suffixes *-ist* and *-ful* in discussion and on a worksheet

#### **Comprehension Checks**

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