

### Focus Question:

*What are tornadoes, and why are they dangerous?*

### Book Summary

Text Type: Nonfiction/Informational

Have you ever experienced a tornado? What would you do if you were in a tornado? *Tornadoes* provides students a comprehensive look at this amazing force. The book can also be used to teach students how to determine cause-and-effect relationships and the inflectional ending *-ing*. The book and lesson are also available for levels J and M.



### Lesson Essentials

#### Instructional Focus

- ☐ Connect to prior knowledge to understand text
- ☐ Determine cause-and-effect relationships
- ☐ Describe information provided by graphics
- ☐ Identify initial consonant *th*-blend
- ☐ Identify Inflectional ending *-ing*
- ☐ Identify and use prepositions

#### Materials

- ☐ Book: *Tornadoes* (copy for each student)
- ☐ Cause and effect, inflectional ending *-ing*, prepositions worksheets
- ☐ Discussion cards
- ☐ Book quiz
- ☐ Retelling rubric

#### Vocabulary

Boldface vocabulary words also appear in a pre-made lesson for this title on [VocabularyA-Z.com](http://VocabularyA-Z.com).

##### • Words to Know

**Story critical:** *atmosphere* (n.), *damage* (n.), *funnel* (n.), *rotate* (v.), *struck* (v.), *tornadoes* (n.)

**Enrichment:** *debris* (n.), *moist* (adj.), *scan* (v.)

- **Academic vocabulary:** *cause* (v.), *example* (n.), *important* (adj.), *measure* (v.), *occur* (v.), *period* (n.)

### Guiding the Reading

#### Before Reading

##### Build Background

- Place on the board the photograph from page 13 in the book. Ask students to work with a partner to identify all the possible causes of the harm in the picture.
- Discuss with students that a tornado was the cause of the harm shown in the picture. Have students draw on a separate piece of paper how they think a tornado forms. Invite volunteers to share their picture with the rest of the class.
- Ask students if they have ever been in a tornado. Have students discuss in groups what they would do if they were in a tornado.

##### Introduce the Book

- Give students their copy of *Tornadoes*. 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 (genre, text type, and so on) and what it might be about.
- Show students the title page. Discuss the information on the page (title of book, author's name).
- Preview the table of contents on page 3. Remind students that the table of contents provides an overview of the book. Ask students what they expect to read about in the book, on the basis of what they see in the table of contents. (Accept all answers that students can justify.)

##### Introduce the Reading Strategy:

##### Connect to prior knowledge

Explain to students that effective readers make connections between what they already know and new information they read, which is called *connecting to prior knowledge*. Remind them that thinking about what they already know about the topic of a book will help them better understand what they read. Read the title of this book and ask students to look at the front and back covers. Invite volunteers to share what they already know about the topic of this book, on the basis of the title and cover pictures.

### Guiding the Reading (cont.)

#### Introduce the Comprehension Skill:

##### Cause and effect

- Discuss cause-and-effect relationships. Explain that a *cause* is an action or event that makes something happen and the *effect* is what happens because of, or as a result of, the action or event.
- Explain to students that there can be more than one effect from a cause. Copy the first two boxes of the [cause-and-effect worksheet](#) on the board, and write *A Storm Produced High Winds* in the Cause box and *Flying Debris Broke the Window* in the top Effect box. Ask students what else can happen when a storm produces high winds for a week. Record responses.
- Explain to students that they will be looking for cause-and-effect relationships as they read the book.

#### Vocabulary

Have students turn to the “Words to Know” box on the copyright page. Discuss each word with students. Then, have students turn to the glossary on page 16. Explain that the glossary provides definitions for the vocabulary words in the book. Point out the use of each content word and academic vocabulary word in the book, and then use each word in a different model sentence. Have students work in groups to create posters for these words. Have them include on each poster the word and its part of speech, the definition, the word in an example sentence, and a picture illustrating the meaning of the word.

#### Set the Purpose

- Have students read to find out more about tornadoes. Write the Focus Question on the board. Invite students to look for evidence in the book to support their answer to the question.
- Have students make a small question mark in their book beside any word they do not understand or cannot pronounce. These can be addressed in a future discussion.

### During Reading

#### Text-Dependent Questions

As students read the book, monitor their understanding with the following questions. Encourage students to support their answers by citing evidence from the book.

- *How are supercells related to tornadoes?* (level 3) page 5
- *Who was T. Theodore Fujita?* (level 1) page 8
- *What conclusions can you draw about Tornado Alley?* (level 3) page 9
- *How would you contrast the air in the Gulf of Mexico to the air in Canada?* (level 2) pages 8 and 9, page 10
- *What is the sequence of warnings people receive before a tornado strikes?* (level 3) page 12

- *Why should you avoid windows during a tornado?* (level 1) page 13
- *How would you summarize tornado safety?* (level 2) pages 12–14
- *What facts support the idea that we can learn more about tornadoes?* (level 3) multiple pages

#### Text Features: Graphics

Explain that graphics, including charts, graphs, and cutaways, are used to help the reader understand the information in the book. Have students work with a partner to review the chart on page 7. Ask students: *How does the chart support the main idea of this section? How is the information organized on the chart? When does spinning air become a tornado?* Have students review other graphics in the book and discuss in groups which cause-and-effect relationships they support. Invite volunteers to share their thoughts with the rest of the class.

#### Skill Review

- Model for students how you make connections to prior knowledge. Invite volunteers to share their prior knowledge with the class.
- Have students work in groups to periodically review the cause-and-effect relationships in the book. Have groups discuss these relationships and how they affect outcomes in the book.
- Model evaluating details to understand cause-and-effect relationships in the book.  
**Think-aloud:** *The book is providing me with information about the cause-and-effect relationships of tornadoes. I read on pages 5 and 6 that supercells create tornadoes. This causes air to spin that may touch the ground. This is one of many cause-and-effect relationships I read about in the book.*
- Model how to complete the cause-and-effect worksheet. Have students identify details from the book and circle them. Then, have students discuss the details with a partner and determine the cause-and-effect relationships in the book.

### 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.

#### Skill Review

##### Graphic Organizer: Cause and effect

Review the cause-and-effect worksheet that students completed. Have students share their work in groups. Invite volunteers to share with the rest of the class the relationships they chose. Point out that sometimes one effect leads to another and so on. Ask students why it is important to understand cause-and-effect relationships when considering tornadoes.

### Guiding the Reading (cont.)

#### Comprehension Extension

**Discussion cards** covering comprehension skills and strategies not explicitly taught with the book are provided to be used for extension activities.

#### Response to Focus Question

Have students cite specific evidence from the book to answer the Focus Question. (Answers will vary. Reasons should include characteristics that describe tornadoes and why they are dangerous. Sample: *Tornadoes are caused by supercells, which occur when warm, moist air meets cold, dry air. This causes the air to spin, and it can eventually reach the ground. Tornadoes are hard to predict and can produce powerful winds that can stretch hundreds of miles.*)

#### Comprehension Checks

- **Book quiz**
- **Retelling rubric**

### Book Extension Activities

#### Build Skills

##### Phonics: Initial consonant *th*-blend

- Write the word *throat* on the board and read it aloud with students.
- Have students say the /th/ sound aloud. Then, run your finger under the letters in the word *throat* as students say the whole word aloud. Ask students to identify which letters represent the /th/ sound in the word *throat*.
- Say the words *thumb* and *thigh* aloud, emphasizing the initial sounds, and have students write the words on a separate sheet of paper. Have students compare their words with a partner's. Reinforce with students the different sounds of the *th*-blend.
- **Check for understanding:** Write the following words on the board, leaving off the initial consonant blend: *thought, thrust, thirty, and thrive*. Invite volunteers to come to the board and add the initial consonant blend.

#### Grammar and Mechanics:

##### Inflectional ending *-ing*

- Write the following sentence on the board: *Because it's difficult to get close to a tornado, scientists estimate its wind speed by examining the damage it causes.*
- Circle the word *examining*. Explain to students that *-ing* is an example of an *inflectional ending* and that an inflectional ending is added to the end of a base word. Point out to students that the base word of *examining* is *examine*. Invite a volunteer to underline the base word of *examining*.

- Create two columns on the board. Label the columns *Base Word* and *-ing*. Model adding the inflectional ending *-ing* to the following words: *research, produce, fly, force, warn*. Point out to students that with words that end with a silent *e*, such as *produce* and *force*, they must first drop the silent *e* and then add the inflectional ending *-ing*.
- **Check for understanding:** Have students turn to page 15 and locate the word *amazing*. Have students write the base word of *amazing* in the margin of the space.
- **Independent practice:** Introduce, explain, and have students complete the **inflectional ending *-ing* worksheet**. If time allows, discuss their answers.

#### Word Work: Prepositions

- Review or explain that position words, called *prepositions*, are used to tell something's position. For example, explain that the sentence on page 14 tells where to go if you live in a tall building during a tornado. Ask students which word explains where to go (*into*). Explain that *into* is a preposition.
- Have students turn to page 13. Ask them to tell where to go for protection from a tornado (*beneath a heavy table or desk*). Discuss that the phrase *beneath a heavy table or desk* describes where to go for protection. Have students name the preposition (*beneath*).
- **Check for understanding:** Write the prepositions *after, before, down, and up* on the board. Have students take turns using the words in sentences to show where things are.
- **Independent practice:** Introduce, explain, and have students complete the **prepositions worksheet**. If time allows, discuss their answers.

#### Connections

- See the back of the book for cross-curricular extension ideas.