

Storm Chaser

In the aftermath of a devastating tornado, a teen encounters a brilliant scientist—and both their lives change forever.

About the Story

Lexile® Measure 950L (captions and pairing only)

For qualitative complexity factors, go to Scope Online.

Learning Objective: to write a speech from the point of view of a character in the play

Featured Skill: key ideas and details

Additional skills covered in this lesson plan: text structure, key ideas, text evidence, conflict, summarizing, inference, cause and effect

Essential Question:

- How do natural disasters shape our lives?
- How can understanding natural disasters help us to better prepare for them?
- In what ways do scientists make a positive impact on the world?

Standards:

The article and its suite of support materials support these Common Core Anchor Standards: R.1, R.2, R.3, R.4, R.5, W.2, SL.1

For more standards information—including TEKS—go to Scope Online.



Your Teaching Package

Find your full suite of support materials at scope.scholastic.com.

Audio:

- Text-to-speech
- Vocabulary

Slideshow:

- Vocabulary

Connected readings from the Scope archives:

- "Heart Saver"
- "The Bone Hunter"
- "Into the Poison Cloud"
- "Did You Use the GPS on Your Phone Today?"
- *The Poison Sky*

Activities to print, project, or share digitally:

- Vocabulary: Definitions
- Close-Reading and Critical-Thinking Questions
- Featured Skill: Key Ideas and Details
- Word Scales
- Choice Board
- Lesson Plan Slide Deck
- Quiz*
- **Core Skills Workout:** Inferencing

*Available on two levels

Step-by-Step Lesson Plan

1. Prepare to Read (10 minutes)

Preview Vocabulary (10 minutes)

- Project the **Vocabulary Slideshow** on your whiteboard. Review the definitions and complete the activity as a class. The audio pronunciations of the words and a read-aloud of the definitions are embedded on the slides. Highlighted words: *intact*, *meteorologist*, *radar*, *razed*, *transfixed*, *vortices*, *weather vane*.

2. Read and Discuss (55 minutes)

- Invite a volunteer to read aloud the As You Read box on page 19 or at the top of the digital story page.
- Assign parts and read the play aloud as a class.
- Divide students into groups to discuss the following **Close-Reading and Critical-Thinking Questions**, which are also located in the Resources tab.

Close-Reading Questions (25 minutes)

The following questions can be shared in printable or interactive form.

1. **What is the purpose of Scene 1?** (text structure) *The Historian provides the audience with background information about Ted Fujita and his career as a meteorologist, which is helpful to those unfamiliar with his work and achievements. The Historian also provides the audience with an important piece of information—that after studying tornadoes for nearly two decades, “there remained an important puzzle he [Fujita] had yet to fully solve.” Audience members will likely keep this in mind throughout the play, trying to figure out for themselves what the mystery is and why it is important. Finally, the last line of Scene 1 establishes that the Super Outbreak of 1974 will be the focus of the play.*
2. **According to Scene 2, what is Fujita’s theory of multiple vortices, and why is it important to understand as much as possible about tornadoes?** (key ideas) *Fujita’s theory is that*

“within a tornado there can be areas of low pressure, which can create mini funnels—or vortices.” In other words, there could be tornadoes within a tornado. It’s important to understand as much as possible about tornadoes because, as Fujita explains, “the more we understand, the better we can try to prepare for them.” By better preparing for tornadoes, we can limit their devastating effects, saving lives and communities.

3. **Describe the conflict between Fujita and the other meteorologists in Scene 3.** (conflict, summarizing) *Fujita explains his theory of multiple vortices to a group of meteorologists. He presents a photograph of a tornado-damaged field and shares his belief that the corkscrew-like marks in the photo were made by multiple vortices. The other meteorologists are skeptical of Fujita’s theory, presuming that because he has never actually seen the vortices, he must be wrong.*
4. **How do Scenes 2 and 3, which take place in the decade before the Super Outbreak, help the audience to better understand the rest of the play?** (text structure) *Scenes 2 and 3 help the audience to understand that Fujita is searching for proof of his theory of multiple vortices. We know that if he can find evidence, the scientific community will accept his idea. Scenes 2 and 3 help the audience understand the importance—to Fujita and to the world—of the film that Pam gives Fujita in Scene 7.*
5. **In Scene 6, the narrators describe how Pam’s home is mostly intact, while her neighbor’s house was destroyed. According to Fujita’s theory of multiple vortices (described in Scene 3), why is this the case?** (inference, text evidence) *Multiple vortices explain the strange phenomenon of how sometimes after a tornado, one house is ruined while the house next door is unharmed. Pam’s neighbor’s house must have been in the path of suction vortices, mini tornadoes within the larger funnel cloud. Essentially, the house was destroyed by a tiny tornado inside the main tornado.*
6. **How does the brief encounter between Fujita and Pam affect both of their lives?** (inference, cause and effect) *Thanks to Pam’s footage of multiple vortices, Fujita is finally able to prove his theory after nearly two decades of searching for proof. We can infer that it is her meeting with Fujita that inspires Pam to become a professor of meteorology.*

Critical-Thinking Questions

(10 minutes)

The following questions can be shared in printable or interactive form.

1. **In Scene 7, Pam asks Fujita, “Are you a detective?” Fujita responds, “In a way.” How is Fujita’s job similar to that of a detective?** *Answers will vary. Students may refer to Scene 7, in which Fujita explains to Pam how he studies the damage from tornadoes “to help piece together what happened.” This is similar to how a detective studies clues at the scene of a crime to determine what took place. Students may also write that like a detective, Fujita must have a lot of patience and faith that his work will eventually come together.*

2. **Why is it important for scientists to study natural disasters?** *Answers will vary. Students might refer to Fujita's line in Scene 2 when he says, "There is still much we don't understand about tornadoes—how they form and move and why they are so destructive. The more we understand, the better we can try to prepare for them." This line could apply to any type of natural disaster, from hurricanes to floods to wildfires. The more that scientists are able to learn, the better prepared people can be and the more lives that can be saved. For example, as the caption on page 24 explains, warning times for tornadoes have significantly improved, so people now have more time to get to safety before a tornado arrives.*

3. Write About It: Key Ideas and Details (45 minutes)

- Have students complete the **Featured Skill Activity: Key Ideas and Details**. This activity will prepare them to respond to the writing prompt on page 24 in the printed magazine and at the bottom of the digital story page:

Imagine you are Pam, working as a professor in 1999. Write a speech to give to students about Ted Fujita's impact on you, the field of meteorology, and people everywhere.

- Alternatively, have students choose a task from the **Choice Board**, a menu of culminating tasks. Our Choice Board options include the writing prompt from the magazine, differentiated versions of the writing prompt, and additional creative ways for students to demonstrate their understanding of a story or article.

Connected readings from the Scope archives:

Stories about pioneering scientists:

- Narrative Nonfiction: ["Heart Saver"](#)
- Narrative Nonfiction: ["The Bone Hunter"](#)
- Paired Texts: ["Did You Use the GPS on Your Phone Today?"](#)
- Drama: [The Poison Sky](#)

A story about a tornado:

- Narrative Nonfiction: ["The Tornado That Changed America"](#)