

Competency: Understand Tornadoes

Lesson Overview: The purpose of this lesson is to teach students to understand what tornadoes are, when they are most likely to happen, and the dangers associated with tornadoes. A hands-on experiment is included in this lesson plan.

This lesson plan includes the following:

1. Pictures of Tornadoes and Tornado Destruction
2. The Tornado Vocabulary
3. Tornadoes (story)
4. Tornado Vocabulary Matching
5. Tornado Sentence Completion
6. Conversations About Tornadoes
7. Tornado Tube
8. Tornado Crossword Puzzle and Tornado Word Search
9. Poster About Tornadoes
10. Tornado Vocabulary Flash Cards
11. Fact Sheet: Tornado Safety Tips Brochure
12. Referenced books and materials

Approximate Time: 2 or more hours

Prerequisite Skills: Students must be able to read and write simple sentences, recognize the months of the year, be able to use a pencil, and be able to follow simple one-step directions.

Prerequisite Vocabulary:

weather	rain	wind
hail	cloud(s)	warm
cold	air	thunderstorm
storm	season(s)	month(s)
inside	outside	

Vocabulary:

clockwise
counterclockwise
damage
dangerous
destroy
funnel cloud
tornado

Vocabulary for Optional Activities:

tornado alley
tornado warning
tornado watch

Materials Needed: White board or flip chart, erasable markers, handouts, **poster about tornadoes**, **pictures of tornadoes**, ***Terrifying Tornadoes* by Jennifer Boudart**, two 2-liter bottles, **tornado tube**, water, glitter/confetti (optional), and prizes (optional).

Materials Needed for optional activities: **Poster about tornadoes**, **fact sheet on tornadoes**, **tornado vocabulary flash cards**.

Equipment Needed: None

Activities:

1. Explain the purpose of the lesson. Show students the **tornado pictures and tornado destruction pictures**. Briefly explain what these pictures are.
2. Write down the word tornado on the board or flip chart. Read the word to the students and have students repeat it in unison. Repeat as necessary.
3. Ask the students what they know anything about tornadoes. Write down student responses on the board or flip chart. Review orally.
4. Go over new vocabulary. You may want to write the words on the board.
 - a. First of all make sure that each student can correctly pronounce the new words by having them pronounce the words aloud as a group and then individually.
 - b. Give the students **Handout: The Tornado Vocabulary**. Carefully explain each word and make sure that students understand the meanings. Make sure to demonstrate clockwise and counterclockwise using a clock or a drawing.
5. Give students **Handout: Tornadoes**. Read the story to the class as students

follow along. Explain in appropriate detail any new information or vocabulary words. Make sure to explain that tornadoes can occur during any time of year. However April, May, and June make up the tornado season. Ask the students "Is it tornado season now?"

6. After having discussed the story, have students get in pairs or small groups and take turns reading a paragraph in the story until the entire story is completed. Repeat as necessary.
7. Give students ***Handout: Tornado Vocabulary Matching***. After students have completed the handout, review the answers orally.
8. Using the lesson's vocabulary and after having made sure that the students know the meanings of the words, have the students complete the ***Handout: Tornado Sentence Completion***. Review the answers orally.
9. Have students practice the ***Conversation about Tornadoes***. You can have them do this in pairs at their seats, in pairs at the front of the room, or both. Repeat as necessary. The teacher can also participate by reading the script of one of the students.
10. Ask students if there are tornadoes in the country they are from. Also ask if any of the students have ever been in a tornado before or seen a tornado.
11. Have the students draw a picture or write a story of what a tornado looks like. Post the drawings/stories around the room. Have each student tell about his/her drawing/story.
12. Tornado Experiment: The following shows the movement of a tornado. Do this in front of the class then have a brief discussion about what happened.
 - a. Remove the caps from two empty 2-liter drink bottles. Fill one bottle half-full with water. *Add a handful of glitter and confetti. (optional)*
 - b. Place ***a tornado tube*** (This is available from Burnham Associates, Inc. or a state or local vendor carrying their products.) on the top opening of the bottle. Turn another bottle over. Screw the second bottle on the tornado tube.
 - c. Turn the bottles over so the water-filled bottle is on top. While holding the bottles, gently move them in a circular motion. The water should begin to swirl.
 - d. Place the bottles on a table. Watch the water drain from the top bottle to the bottom one. Watch how the glitter and confetti move.

Assessment/Evaluation of Learning:

1. Teacher observation of students' participation.
2. Evaluation of completed worksheets/handouts.

Optional or follow-up Activities/Ideas:

1. The Oxford Picture Dictionary, Oxford University Press, "Emergencies and Natural Disasters", pages 102-103.
2. The Oxford Picture Dictionary Beginning Workbook, Oxford University Press, "Emergencies and Natural Disasters", pages 102-103.
3. Real-Life English Student Book, Book 3, Steck-Vaughn Company, pages 32-35. Page 35 is about "Weather Warnings."
4. The Basic Oxford Picture Dictionary by Margot F. Gramer, "Emergencies and Natural Disasters", page 74.
5. The Basic Oxford Picture Dictionary Workbook by Jayme Adelson-Goldstein, Fiona Armstrong, and Norma Shapiro, "Emergencies and Natural Disasters", page 74.
6. Word by Word Basic Picture Dictionary by Steven J. Molinsky and Bill Bliss, The Weather and Seasons", pages 162-163.
7. Give students ***Tornadoes Crossword Puzzle and Tornadoes Word Search***. After the students have completed the handout, review the answers orally. These worksheets were made with Wordsheets 5.0 software available at www.qualint.com. There is a free demonstration version that allows 10 printings. After that, the software must be purchased.
8. Use ***Tornado Vocabulary Flash Cards*** for further vocabulary development. You may also have the students make up their own flash cards on 3" X 5" index cards.
9. Students can practice writing sentences using tornado vocabulary.
10. Show the students ***the poster about tornadoes***. (Available from McDonald

Publishing Company or from a state or local vendor who carries their products.) Explain the following facts from the poster in a way that your students will understand:

- a. Explain what causes a tornado.
- b. Show students where Tornado Alley is on the picture of the United States. Explain that Tornado Alley is where most of the tornadoes occur in the United States.
- c. Explain how to protect yourself when you are inside and when you are outside during a tornado.

11. Use the ***Fact Sheet: Tornado Safety Tips Brochure*** for additional information on tornadoes. This is available from the Federal Emergency Management Agency (FEMA) at their website www.fema.gov/library/tornado.htm. Make sure to explain the important safety precautions to take during a tornado. This fact sheet is not a handout for the students.

12. Use ***Terrifying Tornadoes*** by Jennifer Boudart for more activities about tornadoes. This book has pictures, great activities, and reproducible worksheets for classroom use. (This book is available from Learning Resources or a state or local vendor carrying their products.)

13. For more advanced students use the ***Fact Sheet: Tornado Safety Tips Brochure*** to explain the difference between a tornado watch and a tornado warning and also the Fujita-Pearson Tornado Scale. This fact sheet is not a handout for the students it is only for instructor information.