

What Do Your Students Know about Hurricanes?

KNOWLEDGE-BUILDER MINI LESSON

STUDENT OBJECTIVE: I can identify and describe important facts about hurricanes.



Materials

- Overhead projector or interactive whiteboard
- As many of the following magazine or Internet photos as possible: tornado funnel, diagram of hurricane being formed, hurricane surge, graphic showing how a tornado forms, property damage caused by a blizzard, property damage caused by a hurricane.



Prepare (5 minutes)

- Before students play *Community in Crisis*, write the word *hurricane* on the board.
- Choose volunteers to contribute one fact they know about hurricanes. Write students' facts on the board. Tell them that at the end of the lesson you will all check the list again.



Read Aloud (2-3 minutes)

- Let students know you're going to read them a passage about hurricanes and that they should jot down any words they don't know, science ideas they don't understand, or questions that occur to them as you're reading. Read aloud the following:

One hurricane you've probably heard about is Hurricane Sandy, which first hit land near Kingston, Jamaica and traveled as far north as Canada.

Like all hurricanes, Sandy began over the ocean and developed as a result of five atmospheric conditions being present: 1) Warm ocean waters—over 80 degrees; 2) Winds coming together and forcing air upward; 3) Rising humid air making storm clouds; 4) Higher up, winds flowing outward so air below can rise; 5) Light winds blowing outside the storm to steer it and let it gain power. These five conditions were all in play with Sandy, but what was unusual was its perpendicular angle as it approached New Jersey. This angle caused its winds to go up the coast and inland at the same time.

In Community in Crisis, you'll find out the damage a hurricane as powerful as Sandy can do—destroying buildings and knocking out services people depend on.



Damage caused by a hurricane



Discuss & Reteach (5-10 minutes)

- Discuss any questions students wrote down.
- To reteach, you might read the passage again, pausing to explain difficult concepts and vocabulary. Alternatively, you might want to draw a diagram of a hurricane forming on the board and then discuss the five conditions with the class.



Apply (5-10 minutes)

- On the board, write lettered captions for each picture you brought in, e.g., *A. diagram of hurricane being formed; B. hurricane surge, etc.*
- Using an interactive whiteboard or overhead projector, display each picture for two to three seconds and call out its number (picture 1, 2, etc.).
- For each picture, have students write down its number and pair that number with the letter of its matching caption on the board (1C, 2B, etc).
- After you've shown all the pictures, call on volunteers to share the number of a picture and the caption they paired it with.
- Identify the correct pairs, then discuss each one.



Review (5 minutes)

- Return to the list on the board. With the class, delete or edit any questionable facts. Then work with the class to add new hurricane facts that students learned.