

## Lesson Plan

### Hurricane *Jeopardy!*

**Book:** *Engineering for Hurricanes*

**Series:** Engineering for Disaster

**Level:** Navigator

### Objective

To help students demonstrate an understanding of key concepts and terms from a book about engineering for hurricanes.

### Supplies

- *Engineering for Hurricanes* book
- Whiteboard
- Whiteboard markers

### Before the Activity

Have students read *Engineering for Hurricanes*. Draw the following chart on the whiteboard:

Hurricanes	Building Strong Homes	Building Strong Communities
100	100	100
200	200	200
300	300	300
400	400	400
500	500	500
600	600	600
700	700	700

### Activity

*Engineering for Hurricanes* describes how engineers work to keep communities safe from the devastating force of hurricanes. Have students play a game of *Jeopardy!* to review terms from the book. Divide students into three or four teams. On each team's turn, its members can choose a category and number from the chart on the whiteboard. You will read the corresponding clue out loud. Team members have 30 seconds to decide on an answer.

They should format this answer as a question. For example, suppose the clue said, “A storm that forms over warm waters and spins around a low-pressure center.” The correct answer would be “What is a hurricane?”

Students can use the book to find or confirm their team’s answer. If students guess correctly, add points to the team’s score on the whiteboard. Then erase that box, and let the next team choose a clue. Use the following list of clues:

### Hurricanes

- 100: The part of a hurricane that goes more than 74 miles per hour. (What is wind?)
- 200: Most of the damage from a hurricane comes from the water brought by a rising sea level or by this. (What is heavy rainfall?)
- 300: The area that hurricanes affect. (What is the coast?)
- 400: A wearing away of the soil that contributed to levees collapsing during Hurricane Katrina. (What is erosion?)
- 500: Hurricanes form over warm waters in these areas of the world. (What are tropical areas?)
- 600: A rising of the sea that is caused by a storm’s high winds. (What is storm surge?)
- 700: As this increases, the risk of a home’s roof popping off also increases. (What is air pressure?)

### Building Strong Homes

- 100: A massive storm that destroyed much of New Orleans, Louisiana, in 2005. (What is Hurricane Katrina?)
- 200: The supporting base of a structure. (What is a foundation?)
- 300: Rules that ensure new buildings are safe and long-lasting. (What are building codes?)
- 400: Poles or pillars that raise a building off the ground and out of danger from storm surge. (What are stilts?)
- 500: Strong metal anchors that connect a roof to the walls and can resist high winds. (What are hurricane clips?)
- 600: Engineers work with power companies to predict and prevent this from happening. (What is a power outage?)
- 700: Metal coverings that keep wind-blown objects from hitting and breaking windows. (What are storm shutters?)

## Building Strong Communities

- 100: Hurricane Katrina devastated this community in 2005. (What is New Orleans, Louisiana?)
- 200: Walls built from earth materials to stop floodwaters. (What are levees?)
- 300: Gates that can be opened or closed and help control the flow of water in low-lying areas. (What are floodgates?)
- 400: Engineers created these to allow water to pass through roads to the soil underneath in order to reduce flooding. (What are paving materials?)
- 500: Objects that orbit Earth and send data that engineers study to see how buildings and communities performed during storms. (What are satellites?)
- 600: Parts of a city that move water away from low-lying areas by sending it to canals and other waterways. (What are pumping stations?)
- 700: Engineers hope to create these sorts of landscapes to allow water to soak into the ground naturally rather than flood. (What are natural wetlands?)

## Evaluation

The team with the most points at the end of the activity wins. If you need a tiebreaker, use the following clue:

- An island city that was destroyed by a hurricane in 1900 and then rebuilt and raised. (What is Galveston, Texas?)

## Standards

This lesson may be used to address the Common Core State Standards' reading standards for informational texts, grade 5 (RI 5.4), and the National Science Education Standards' Content Standards D, E, and F, grades 5–8.