



5-Minute Refresher: Hurricanes

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Hurricanes– Key Ideas

- Hurricanes have winds of 119 km/hr or higher.
- They can be hundreds of miles wide.
- They form in warm ocean waters.
- A hurricane begins over warm ocean water as a low-pressure area, gathering heat and energy.
- Hurricanes can reshape coastal habitats by moving sand around with its waves. This has an impact on animal habitats and their access to sources of food.
- Strong winds can take the leaves off of trees and bushes.

Hurricanes– Key Ideas

- Energy for formation comes from warm air from the ocean.
- Air rises and forms clouds, bringing more air into the system.
- Hurricane systems have very high winds and heavy rains.
- The winds spiral inward towards the lowest pressure, creating a center to the storm.
- The center of the storm is called the “eye” and is calm.
- Hurricanes move in the direction of global wind patterns.
- High winds and waves associated with the storm can be very destructive to homes and roads and can cause flooding and power outages.

Hurricanes – Prior Knowledge

- Students will likely be familiar with Hurricane Katrina.
- They may be familiar with destruction caused by hurricanes.
- Students will likely have seen hurricanes in popular media.
- They should know hurricanes are a type of severe weather.

Hurricanes– Learning Objectives for Grades K-3

- Some types of weather events are more likely than others.
- Weather hazards result from natural processes.
- Hurricanes cannot be stopped.

Hurricanes– Learning Objectives for Grades 4-6

- Hurricanes cannot be stopped, but humans can reduce their impact with warnings systems and by building in low-risk areas.
- Humans can track and map hurricanes to identify patterns in formation and location.
- Hurricanes are influenced by weather patterns and water temperatures.

Hurricanes – Common Misconceptions

- If the eye passes over you, it is safe to go outside for a few minutes.
 - **Reality:** Although the winds will die down significantly in the eye of a hurricane, the winds that follow are often the strongest in the hurricane system.
- The size and area of the hurricane determines its strength.
 - **Reality:** If a storm is large overall, it will cover more ground and be more destructive. However, smaller storms can be just as destructive in smaller areas. Large-covering storms can be fast moving and have relatively light rain. So, size and area are not an indicator of hurricane strength.

Hurricanes – Additional Information

Hurricanes form in warm ocean waters. Then, they travel along with the global wind patterns. To learn more about how oceans heat up in the first place, have students investigate:

Motion in the Ocean

http://www.siemensscienceday.com/activities/motion_in_the_ocean.cfm