

How Dangerous are They?



One of the most damaging, and deadly events that occur is the hurricane. When hurricanes move ashore, they bring with them a storm surge of ocean water along the coastline, high winds, tornadoes, and both torrential rains and flooding.

During a hurricane, homes, businesses, roads and bridges may be damaged or destroyed by high winds and/or high waves. Debris from the high winds can damage property. Roads and

bridges can be washed away by flash flooding, or can be blocked by debris. In particularly large storms (such as Hurricane Andrew), the force of the wind alone can cause tremendous devastation. Trees and power lines topple and weak homes and buildings crumble. These losses are not just limited to the coastline -- often damage extends hundreds of miles inland.

Hurricanes and their potential for destruction are rated using a scale from 1 to 5 called the [Saffir-Simpson](#) scale. A Category 1 hurricane is the least destructive and a Category 5 hurricane is the most destructive. There are three types of damage caused by hurricanes:

- **Wind Damage**
Hurricane-force winds, 74 mph or more, can destroy poorly constructed buildings and mobile homes. Debris, such as signs, roofing material, siding, and small items left outside, become flying missiles in hurricanes. Winds often stay above hurricane strength well inland.
- **Storm Surge Damage**
Storm surge is a large dome of water often 50 to 100 miles wide that sweeps across the coastline near where a hurricane makes landfall. The surge of high water topped by waves is devastating. The stronger the hurricane and the shallower the offshore water, the higher the surge will be. Along the immediate coast, storm surge is the greatest threat to life and property.
- **Flood Damage**
Widespread torrential rains often in excess of 6 inches can produce deadly and destructive floods. This is the major threat to areas well inland.

Areas in the vulnerable to hurricanes include the Atlantic and Gulf coasts of the United States from Texas to Maine, the Caribbean, and tropical areas of the western Pacific, including Hawaii, Guam, American Samoa, and Saipan. Even Category 1 hurricanes can cause death, property damage and flooding and should be taken very seriously. Coastal areas are often evacuated by the police when a hurricane is approaching.

EXAMPLE: Natural Disasters

Topic: hurricanes

Essential Question: What are environmental and cultural effects of a hurricane?

Guiding Questions:

- What are the characteristics of a hurricane?
- How are people affected by a hurricane?
- What is the impact of a hurricane on the environment?



Key starting points for planning effective units of study built around key curriculum-based big ideas.