

What is a hurricane?

A hurricane is a violent tropical storm, with very strong winds and heavy rain. Hurricanes can be up to 600 miles wide. Winds can reach speeds of 200 miles per hour (mph), causing huge damage.

Why do hurricanes happen?

In summer or autumn, warm ocean air rises quickly. Other air is sucked in to take its place; this rises too, forming clouds. The clouds begin to spin as the earth does, creating a swirling storm. If there is enough warm water to power the storm, it strengthens into a hurricane.

What damage do hurricanes cause?

Hurricane winds are strong enough to knock down trees, buildings and power lines. Cars and boats can be tipped over and people injured or killed.

Hurricanes whip up huge waves and blow them ashore, in 'storm surges'. The waves can wash away buildings and flood homes and roads. The water may reach several miles inland.

How are hurricanes measured?

Scientists use satellites to work out the strength of the winds and rain. They also send aircraft into hurricanes to measure them.

Winds are measured by the Saffir-Simpson scale, which puts hurricanes into five categories. Category 5 is the strongest, with winds of 157 mph or higher.

Hurricanes change their strength all the time. When they move over land, they lose power, because they have no warm water beneath them to use for energy.

Hurricanes have a calm, clear centre, called the 'eye'. Around this eye is the 'eye wall', which is the most violent part of the hurricane.

Did you know?

Why do hurricanes have names?

Scientists give storms names so that they can track them easily. Harvey, Irma, Jose, Katia – notice anything? Tropical storms are named in alphabetical order! Boys' names and girls' names are used in turn.

Typhoons, cyclones and hurricanes – are they the same thing?

Yes, they are! They're all tropical storms – but they have different names, depending where in the world they form.

Hurricanes develop over the North Atlantic and north-east Pacific oceans. Typhoons are formed over the north-west Pacific ocean.

Cyclones come from the South Pacific and Indian oceans – they 'spin' the other way to hurricanes and typhoons.



Hurricanes are violent, swirling storms

Hurricanes Harvey and Irma

Key facts

In late August 2017, Hurricane Harvey hit Texas and Louisiana in the USA. A week later, Hurricane Irma reached the Caribbean islands, moving on to Cuba and Florida.

Harvey was a Category 4 hurricane, with winds of 130 mph. It was one of the wettest hurricanes ever: in some parts of Texas, a year's worth of rain fell in less than a week.

Irma was even more powerful – and very large. Some reports said it was the size of France! At its strongest, Irma's winds reached 185 mph. This was a Category 5 hurricane and the second strongest storm ever recorded in this area.

Hurricane Allen, in 1980, was even stronger than Irma. It brought winds of 190 mph!

Did you know?

Preparing for the storms

Weather scientists predicted the path the hurricanes would take and gave people plenty of warning. Shops and homes were boarded up and schools closed. People stocked up on food, water and medicine. Many people were ordered to 'evacuate' (leave the area) or stayed in special emergency shelters. In Florida, Disney World closed.

Some people refused to leave their homes. They wanted to protect their property themselves.

Widespread damage

Hurricane Harvey flooded hundreds of thousands of homes. Around 30,000 people in Texas had to leave their houses. Over 70 people were killed.

Irma caused even worse damage. Violent winds blew down houses, hospitals and power lines. Storm surges flooded roads. People were left without electricity, phone lines or drinking water. On the island of Barbuda, almost every building was destroyed.

A 'state of emergency' was declared in a number of countries. This meant that governments stopped their usual business and concentrated on sorting out the problems.



The swirling clouds of Irma - reported to be the size of France!



Roads turned into rivers after Hurricane Harvey



Category 5 storms cause severe damage



Charities like Shelterbox are helping in the area

Cleaning up – what's the cost?

Hurricanes Harvey and Irma caused billions of dollars of damage.

Governments sent help to the countries affected and charities provided money and equipment. The charity Shelterbox sent emergency Shelterkits to the Caribbean, with tools to help people rebuild their homes.

Key Words:

typhoon

cyclone

tropical storm

satellite

Caribbean

evacuate

state of emergency



1. Draw yourself in the circle to become a detective!
2. Answer the questions below to complete your mission.

A. Tick 'true' or 'false' for the statements below.

Statements	True	False
1. Hurricanes can be up to 600 miles wide.		
2. Hurricanes are measured on the Richter scale.		
3. Hurricanes are given names.		

B. Circle the correct answer.

- | | | |
|---|--|---|
| <p>4. Hurricanes have a calm centre called the...</p> <ul style="list-style-type: none"> a. eye b. knee c. mouth | <p>5. Hurricanes develop over the...</p> <ul style="list-style-type: none"> a. Indian Ocean b. North Atlantic and north-east Pacific oceans c. Arctic Ocean | <p>6. Hurricanes lose power when they...</p> <ul style="list-style-type: none"> a. move over the sea b. move over people c. move over land |
|---|--|---|

C. Draw three ways people can prepare for a storm in a town or city.

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D. Name three types of damage caused by Hurricane Irma.
