

Hurricanes

These powerful tropical storms can be up to 1,000 miles (1,600 km) wide, and up to nine miles (14 km) tall! They form over the ocean in warm, tropical areas and when they reach land, they cause great devastation.



The word 'hurricane' comes from 'Huracan' – the god of big winds and evil spirits worshipped by the ancient Maya people of Central America. In the Indian Ocean, they are called 'Cyclones' and in the Pacific Ocean, they are called 'Typhoons'.

The storms form when the ocean water is 80°F (26°C) or warmer. This can happen between June and November (in the Caribbean/Atlantic) or as early as April/May (in the Indian Ocean and Pacific). When warm, moist air rises over the ocean, it is replaced by cooler air, which warms and rises as well. If winds blow in the same direction, this cycle can form huge storm clouds that begin to rotate with the Earth's spin.

The centre of the hurricane (called the 'eye') is the calmest spot, but at the edge of the eye (the 'eyewall'), winds can reach 80–150 mph (129–241 kph) – the speed of an intercity train!

Some hurricanes are over in a few days, while others last several weeks. Strong winds, heavy rain and large waves (known as storm surges) cause severe damage, flooding and sometimes landslides and mudslides. Hurricanes lose some of their strength when they travel over land, so coastal areas are the hardest hit.

Did you know?

- Hurricanes rotate anticlockwise in the northern hemisphere and clockwise in the southern hemisphere. This is due to the Earth's spin.
- Hurricanes are measured from 1 to 5, according to their wind speed. Category 1 is 74-95 mph (119–153 kph), while Category 5 is 156 mph (251 kph) or higher.
- Hurricanes are named alphabetically by the World Meteorological Organization. Starting at 'A' each year, they alternate between male and female names (although Q, U, X, Y, Z are unused). If a hurricane does significant damage, its name is 'retired' and replaced with another. The names Mitch, Katrina and Harvey have retired, for example.
- The deadliest hurricane of recent times was Hurricane Mitch (1998), which claimed at least 11,000 lives. The costliest storms were Hurricane Katrina (2005) and Hurricane Harvey (2017) each costing around US\$125 billion.



The eye of the hurricane

We don't have hurricanes in Britain but we do have severe storms or gales (strong winds). One of the worst was the Great Storm of October 1987 where winds of up to 100mph (161 kph) caused widespread devastation and 18 fatalities. Many buildings were damaged and about 15 million trees were uprooted (causing delays to road/rail, and disturbing power supplies).

Tornadoes

Tornadoes (or twisters) are powerful funnels of air that spin very fast as they move across the landscape – a bit like the swirl you see when water goes down a plughole. They form over land during large thunderstorms and can create the fastest winds on earth – up to 300 mph (483 kph) – faster than the speediest racing car.



When warm air from the ground rises and meets cold winds, the swirling air can tip over, and as more warm air gets sucked up a ‘funnel cloud’ forms and gets longer. When it touches the ground it becomes a tornado that is so strong it can destroy buildings, uproot trees and throw vehicles into the air.

Tornadoes are usually about 500 feet (152 metres) across, but some have reached almost 2 miles (3 km) wide. Although they can form almost anywhere in the world, the US has the most tornadoes (over 1,000 a year). One area that is particularly affected is known as ‘Tornado Alley’ – stretching from Texas to South Dakota and from Missouri to the Rocky Mountains.

In the film *The Wizard of Oz*, a tornado carries Dorothy away to a magical land. But don’t be tempted – tornadoes are incredibly dangerous! Instead, you should find shelter in a strong building, preferably in the basement or the ground floor.

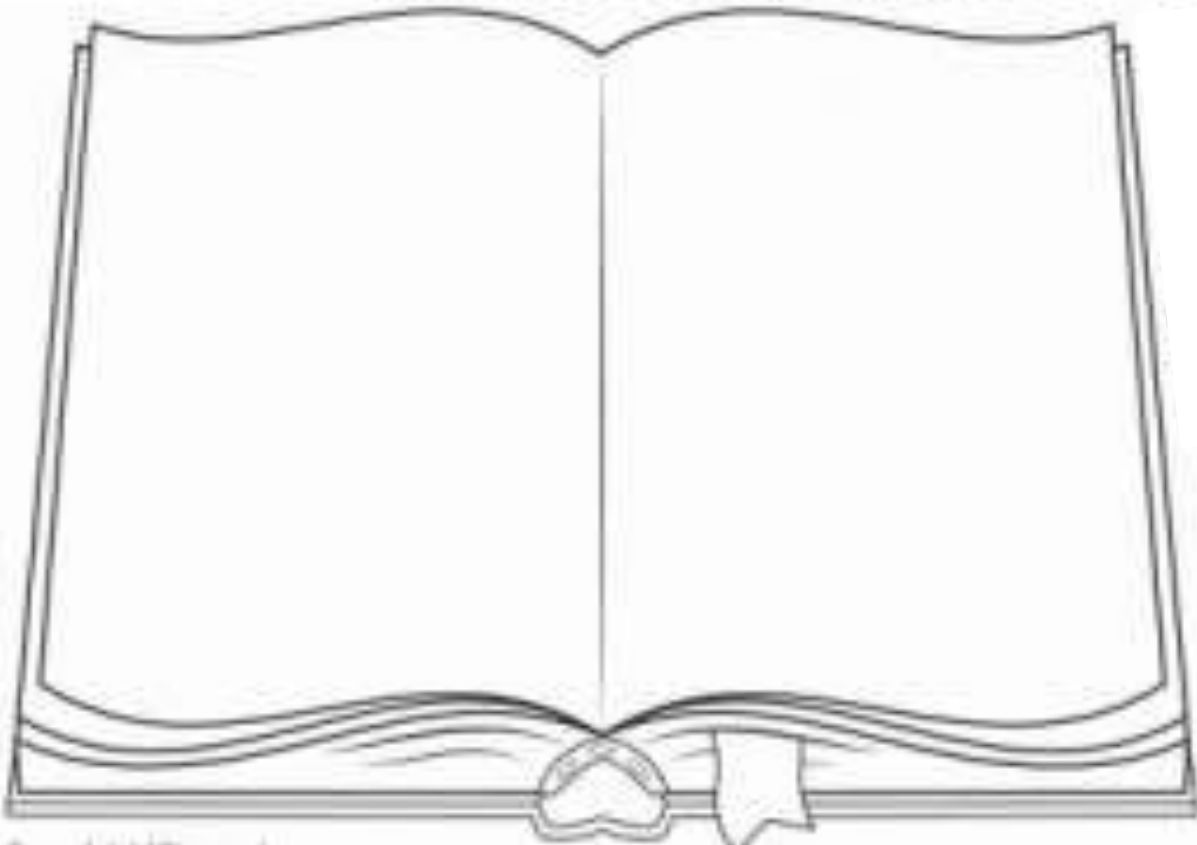
Did you know?

- Tornadoes rotate anticlockwise in the northern hemisphere and clockwise in the southern hemisphere. This is due to the Earth's spin.
- Tornadoes are measured using the Enhanced Fujita (EF) scale, according to their strength and the amount of damage they cause. The most violent cases (EF-5) are strong enough to twist skyscrapers and steel farm machinery.
- The deadliest tornado killed about 1,300 people in Bangladesh in 1989. In the US, the worst tornado of recent times was in Joplin, Missouri, in 2011. This EF-5 tornado was a mile wide and had winds of 200 mph (322 kph). Over 160 people were killed and the city was devastated at a cost of over US\$7.5 million.
- In 1974, 149 tornadoes were seen in the south and mid-west USA in just 24 hours! Luckily, most only lasted a few minutes.

In 2005, the suburbs of Birmingham in the UK experienced one of the strongest tornadoes recorded in the country for almost 30 years. With wind speeds of up to 145 mph (233 kph), buildings were damaged (particularly roofs), around 1,000 trees were uprooted and vehicles were flung into the air. Luckily no one was killed, but about 19 people suffered injuries, and the cleanup operation cost around £40 million.

Experiencing a hurricane must be very frightening! This diary worksheet asks the kids to imagine a hurricane has hit their town - can they record the event in this diary?

Hurricane Diary Worksheet



Hurricane Safety Leaflet

Do some research then practise writing skills by writing a safety leaflet about hurricanes. Print and fold along the dotted lines to make a 3-panel leaflet.

**How to
Stay Safe**



**During a
Hurricane**

Use this dramatic tornado newspaper writing prompt for writing a weather report about a tornado.

Village News

No. 12354





This amazing photo shows a tornado forming far out on the horizon, placed equidistant between two ships. It's a sight you wouldn't see often, and is sure to get the kids talking!

Safety information posters can be very important and helpful during extreme weather. Can you design a poster alerting people to the dangers of tornadoes, and tell them what they need to do to stay safe?

Tornadoes Safety Poster

Design a poster to alert people to the dangers of tornadoes and offer advice on what they can do to stay safe.

