

Natural Disasters

All about wind!



An illustration of three palm trees being hit by a strong wind. The trees are green with brown trunks and are leaning to the right. White, swirling lines represent the wind. Some palm fronds are shown flying off the trees. The background is a light blue sky with a dark grey horizontal band at the top.

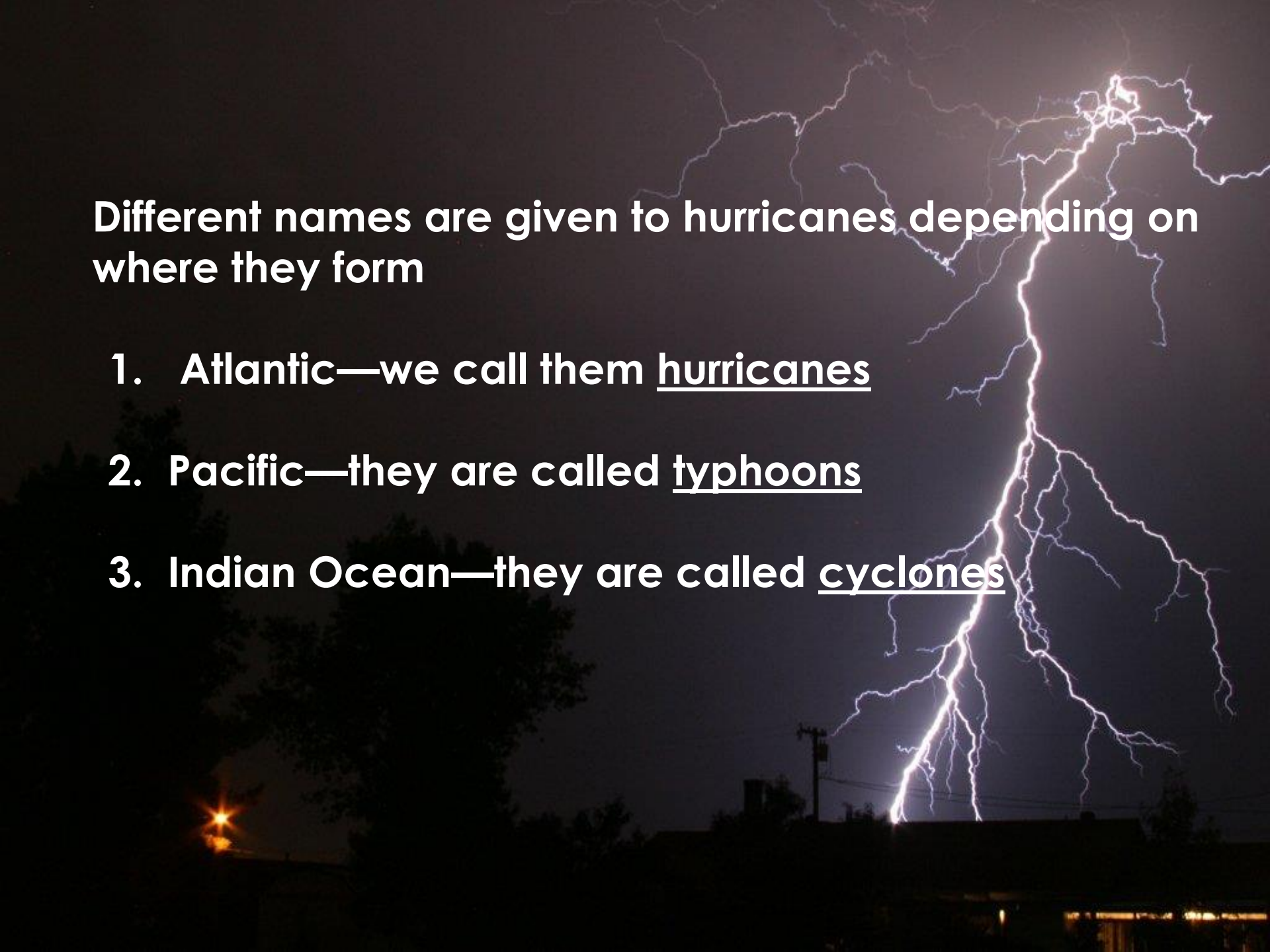
**Hurricanes, tornadoes,
typhoons and cyclones
.....what is the difference**

Not a lot – they are all wind!



Lets begin with Hurricane?

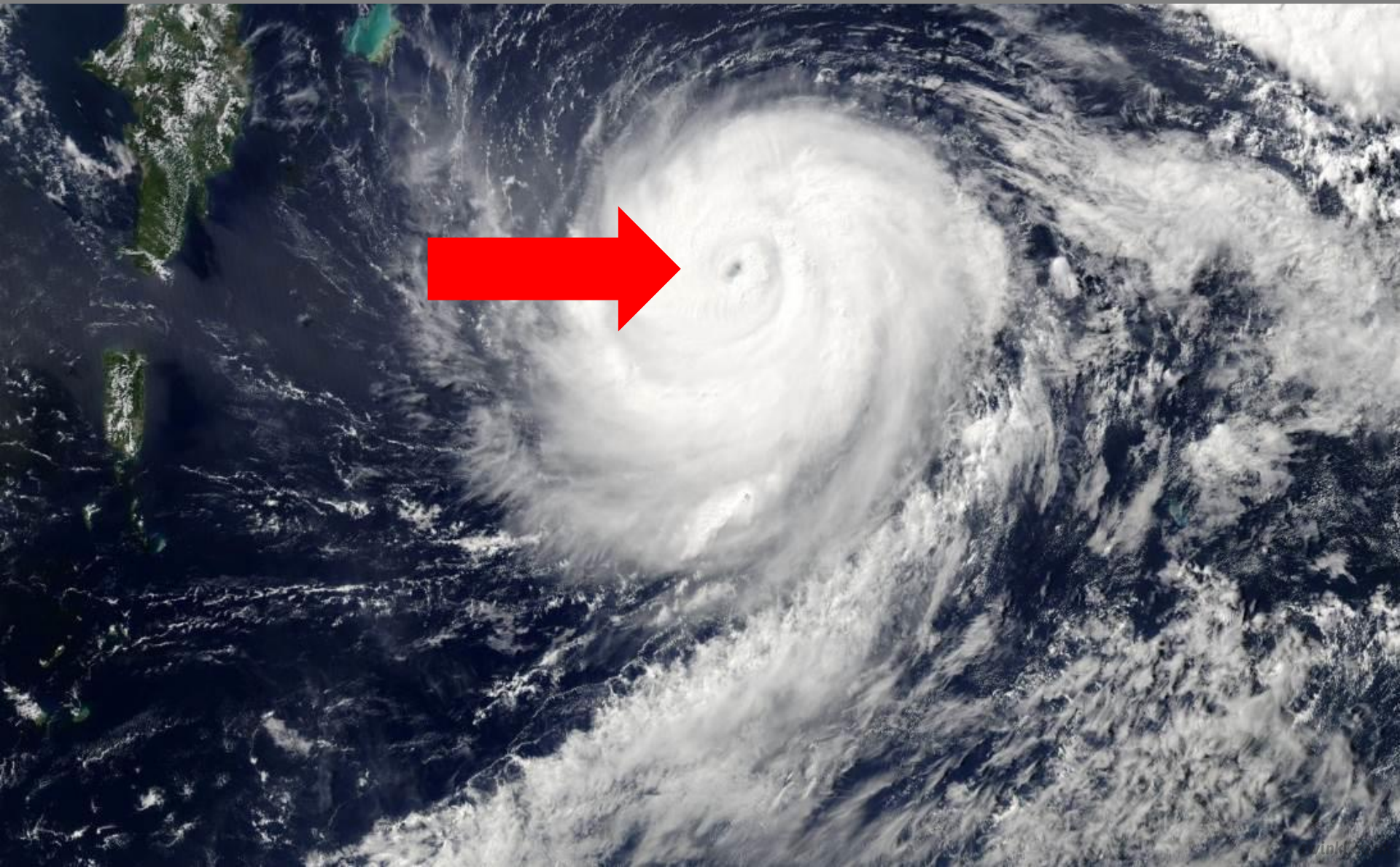
- A hurricane is a huge, rapidly rotating storm.
- When winds reach 74 miles per hour, a hurricane is officially born.
- Hurricanes can be up to 600 miles across and have strong winds of up to 200 mph.
- Each hurricane usually lasts for over a week, moving 10-20 miles per hour over the ocean.
- Hurricanes form close to the equator.
- Hurricanes rotate around the centre of the storm or "eye"; this is the calmest part



Different names are given to hurricanes depending on where they form

- 1. Atlantic—we call them hurricanes**
- 2. Pacific—they are called typhoons**
- 3. Indian Ocean—they are called cyclones**

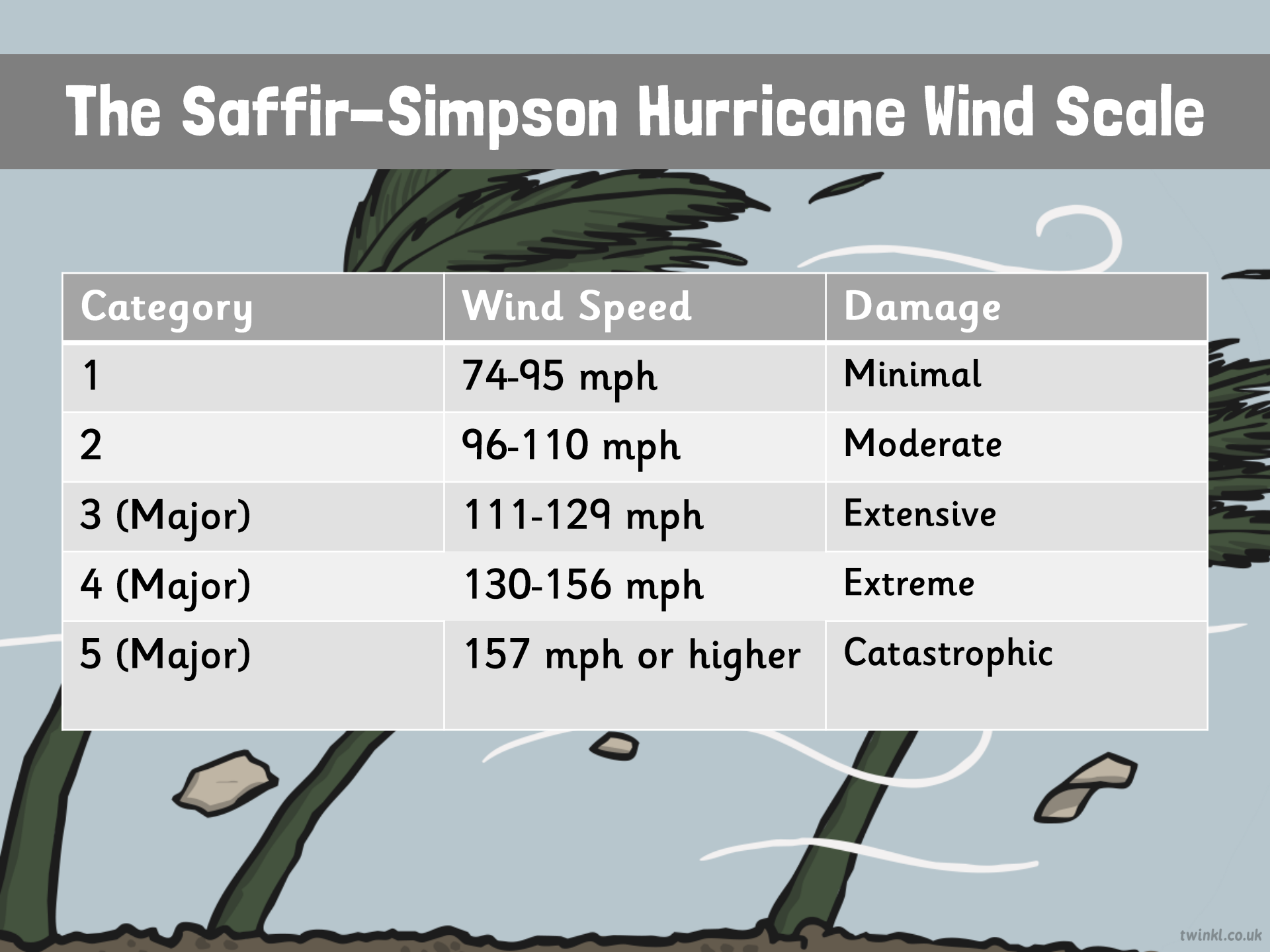
The 'eye' of the Hurricane



What causes a Hurricane?

- Hurricanes form over really warm, ocean water.
- Hurricanes gather heat and energy through contact with warm ocean waters.
- The wind must be blowing in the same direction and at the same speed to force the cool air upward from the ocean.
- As a hurricane's winds spiral around the storm, they push water into the storm's centre. When the storm reaches land, this water causes flooding.
- Rising air and water temperatures worldwide are creating more frequent and severe hurricanes.

The Saffir–Simpson Hurricane Wind Scale



Category	Wind Speed	Damage
1	74-95 mph	Minimal
2	96-110 mph	Moderate
3 (Major)	111-129 mph	Extensive
4 (Major)	130-156 mph	Extreme
5 (Major)	157 mph or higher	Catastrophic



The Impact of a Hurricane

When hurricanes come onto land, the heavy rain, strong winds and large waves can damage buildings, trees and cars.

What kinds of damage have occurred in the area?

If you were in a rescue team who have just arrived at the scene, what kinds of help might you need to give?

Hurricane Around the World

A world map with a light blue background and tan-colored landmasses. A red arrow points from the bottom left towards the Caribbean Sea, specifically towards the island of Barbados.

The Great Hurricane of 1780, Caribbean

- The storm bombarded several Caribbean islands, including Barbados, Martinique and St. Lucia over six days.
- This massive storm is considered to be the deadliest hurricane of all time.
- Approximately 22,000 people were killed.

The names given to hurricanes can be reused after six years have passed. However, if a hurricane has been especially severe, then its name is permanently retired, and never used again.

Hurricane Around the World

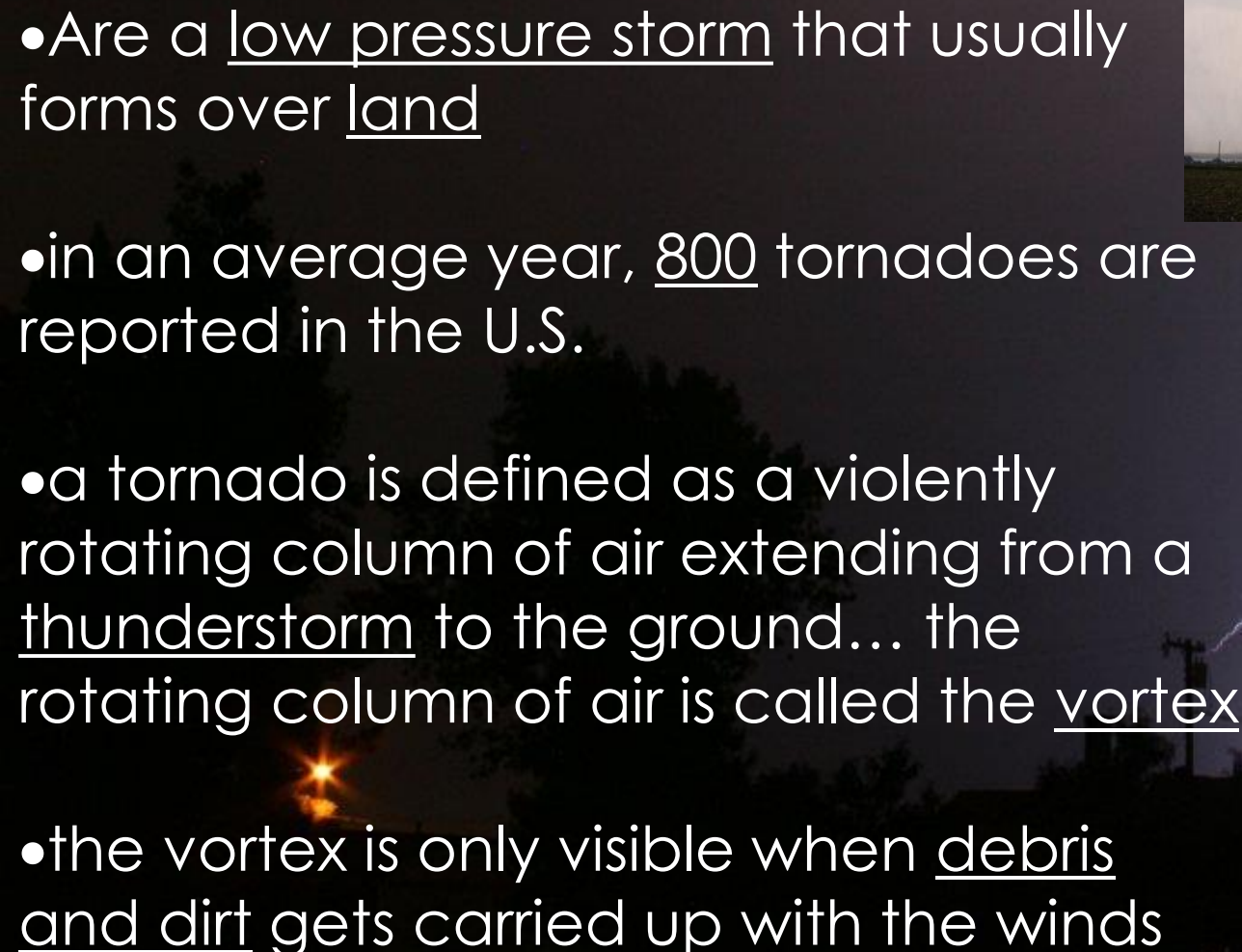


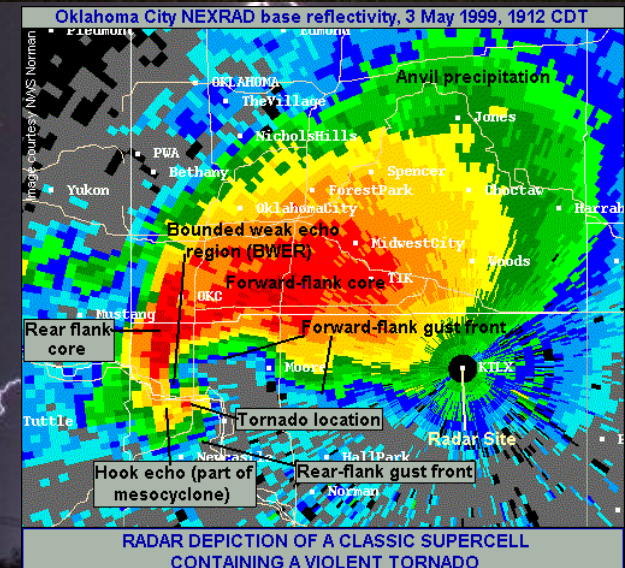
Hurricane Katrina, New Orleans, 2005

- Hurricane Katrina lasted for eight days, with winds of 175 mph.
- The costliest natural disaster in the history of the USA, Katrina caused 1,833 deaths and damages worth \$108 billion.
- 1 million people were made homeless and about 1,200 people drowned in the floods.
- Oil facilities were damaged and as a result, petrol prices rose in the UK and USA.



TORNADOES

- 
- Are a low pressure storm that usually forms over land
 - in an average year, 800 tornadoes are reported in the U.S.
 - a tornado is defined as a violently rotating column of air extending from a thunderstorm to the ground... the rotating column of air is called the vortex
 - the vortex is only visible when debris and dirt gets carried up with the winds



THE HOOK

Where do they come from?

Tornadoes come from the energy released in a thunderstorm.

What makes them dangerous (as compared to hurricanes) is that their energy is concentrated in a small area, only a hundred yards across



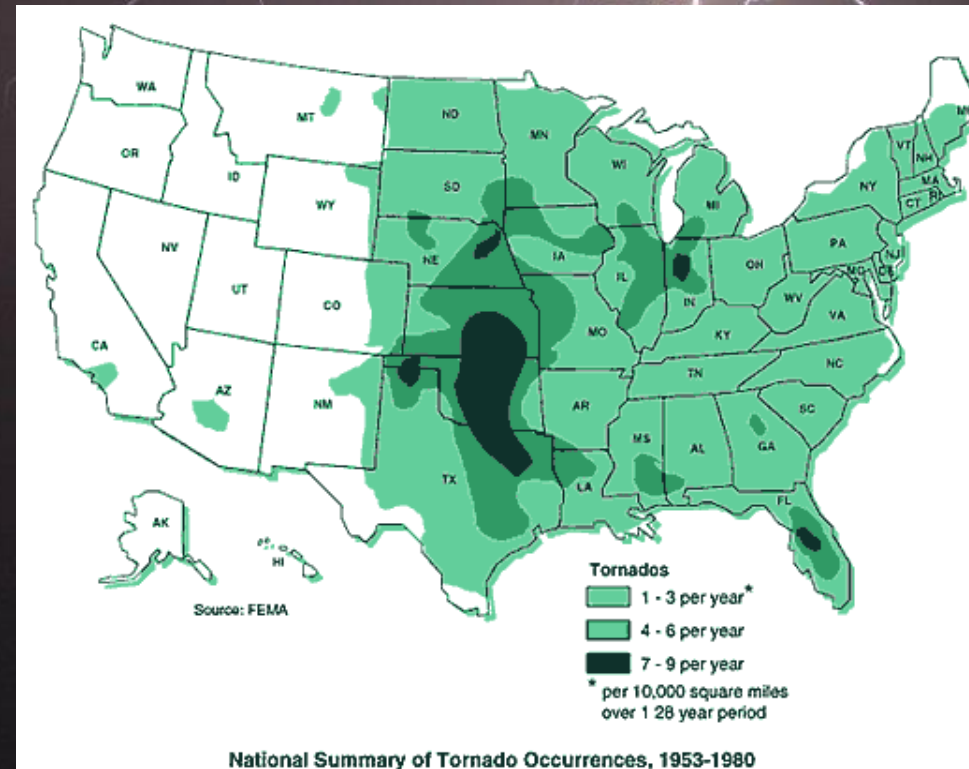
When & Where do they occur?

Most common east of the Rocky Mountains and west of the Appalachian Mountains.

They occur mostly during the spring and summer (April-June)

They usually occur during the late afternoon and early evening.

Usually happen along cold fronts



How long is a tornado usually on the ground?

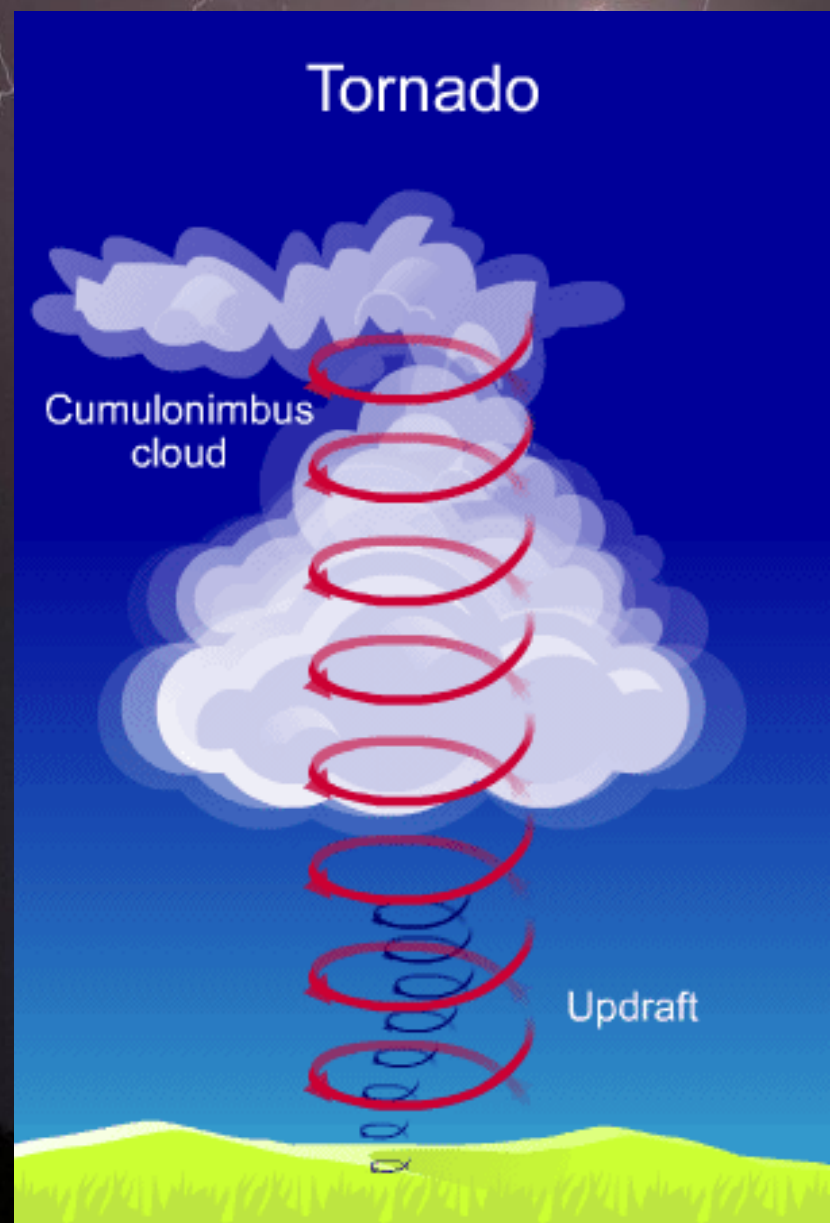
Can range from a few seconds to several hours ...

5 minutes is average

How fast do tornadoes move?

Movement can range from virtually stationary to more than 60 miles per hour ...

Average is 10-20 miles per hour.




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What's the difference between hurricanes, cyclones and typhoons?

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Simon King explains what hurricanes, cyclones and typhoons are

Hurricanes, cyclones and typhoons are all types of tropical storms. But what's the difference between them?

Well, they are all basically the same thing, but are given different names depending on where they appear.

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 Met Office

HURRICANES, TYPHOONS & CYCLONES

Your task

- Create an explanation booklet describing these different sorts of extreme wind (use the pictures provided to enhance your booklet)
- Remember its all about the wind !!

