

Geography Summer Week 8 Lesson 1

Can I identify how hurricanes can impact life?

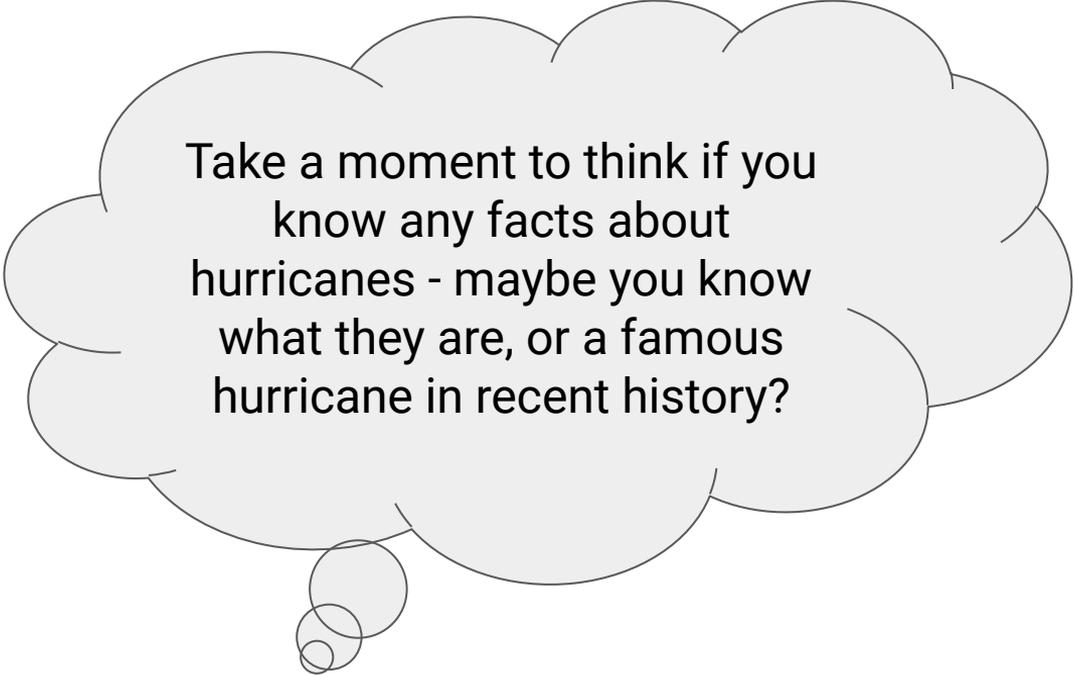
Fast Five - Answers are on the next slide

- 1) On what continent is the United States (US) located?
- 2) What is one similarity between the US and the UK?
- 3) What is one geographical difference between the US and the UK?
- 4) What is a natural disaster?
- 5) Name one type of natural disaster the USA can experience.

Fast Five - Answers

- 1) On what continent is the United States (US) located? **North America**
- 2) What is one similarity between the US and the UK? **English is the main spoken language.**
- 3) What is one difference between the US and the UK? **The US is vulnerable to extreme weather and natural disasters. The US is much larger in size than the UK.**
- 4) What is a natural disaster? **A natural disaster is a sudden natural event such as a flood, earthquake, volcanic eruption or hurricane that causes a big loss of life and a great amount of injuries.**
- 5) Name one type of natural disaster the USA can experience. **Hurricane, tornado, earthquake or volcanic eruption.**

Today we are focusing on a different natural disaster that areas of the US are vulnerable to - hurricanes!



Take a moment to think if you know any facts about hurricanes - maybe you know what they are, or a famous hurricane in recent history?

What is a hurricane?



The 'eye' of a hurricane is an area of low pressure in the centre.

A hurricane is a large rotating (spinning) storm with extremely high speed winds. They can have sustained winds of at least 74 miles per hour - that's faster than we can drive on a motorway!

Hurricanes form over warm waters; this means that they happen in tropical areas and near coast lines.

How do hurricanes form?

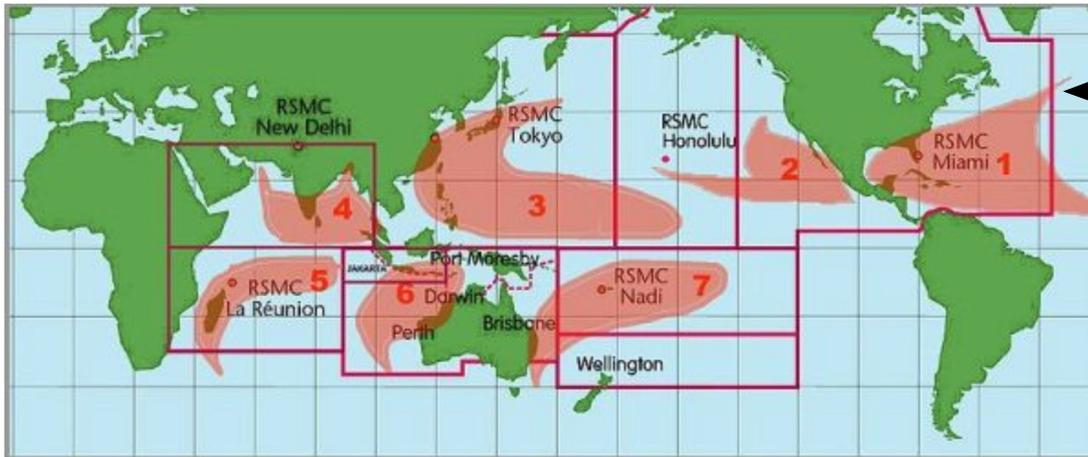
When warm air over the water rises, it is replaced by cooler air. The cooler air will then warm and start to rise. This cycle causes huge storm clouds to form. These storm clouds then begin to rotate with the spin of the Earth. If there is enough warm water, the cycle will continue and the storm clouds and wind speeds will grow, causing a hurricane to form.



Where do hurricanes occur?

Hurricanes usually occur over the ocean in areas near the equator. This is because there is plenty of warm water in these areas to allow the storms to form.

Hurricanes, cyclones, and typhoons are different names for the same type of storm - it just depends on where they form. The key difference is that they spin in different directions depending on which hemisphere they are in! There are seven major areas in the world that tend to produce these. See the map below.



← This area is where we will be focusing on - North America, specifically the southern states of the US.

Why are hurricanes dangerous?

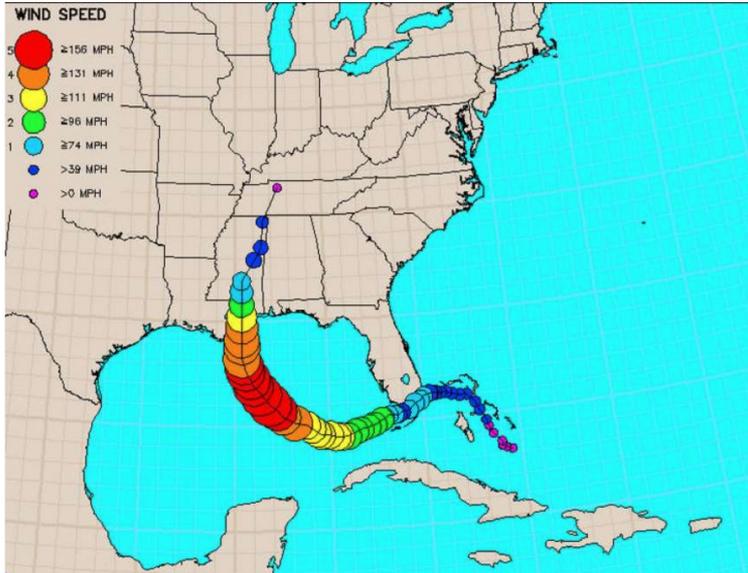
When hurricanes strike land they can cause huge amounts of damage. Most of the damage is caused by flooding and storm surges. A storm surge is when the ocean level rises at the coastline due to the power of the storm. Hurricanes also cause damage with high speed winds that can blow down trees and damage homes.

The severity of hurricanes are rated by the speed of wind:

- Category 1 - 74 to 95 mph
- Category 2 - 96 to 110 mph
- Category 3 - 111 to 129 mph
- Category 4 - 130 to 156 mph
- Category 5 - 157 or higher mph

Hurricane Katrina - August 29, 2005.

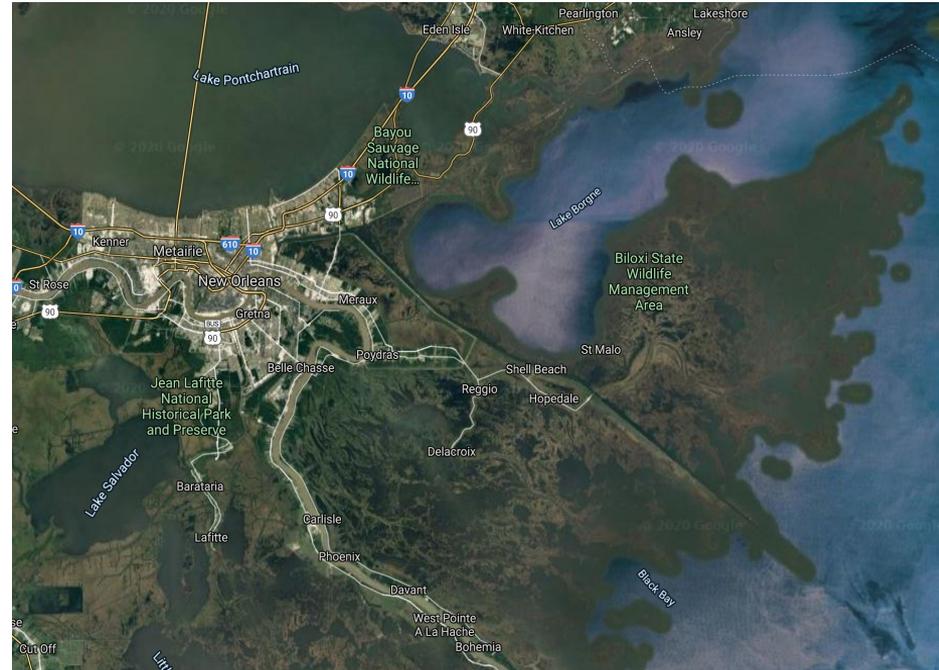
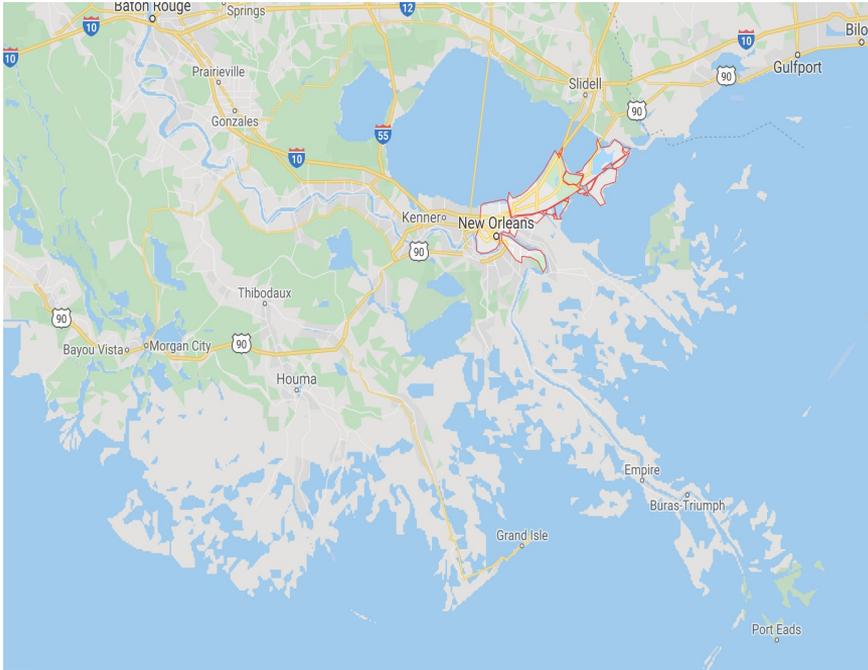
Hurricane Katrina was the most expensive storm, in terms of damages, in U.S. history. The path of Hurricane Katrina affected the Caribbean and numerous states in Southeast US, but Louisiana was the worst hit.



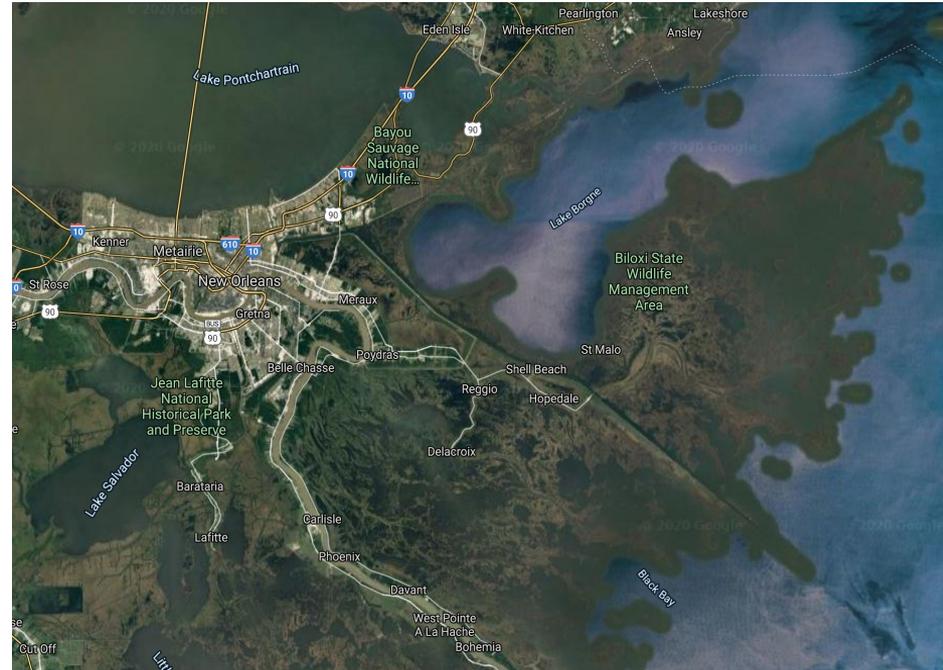
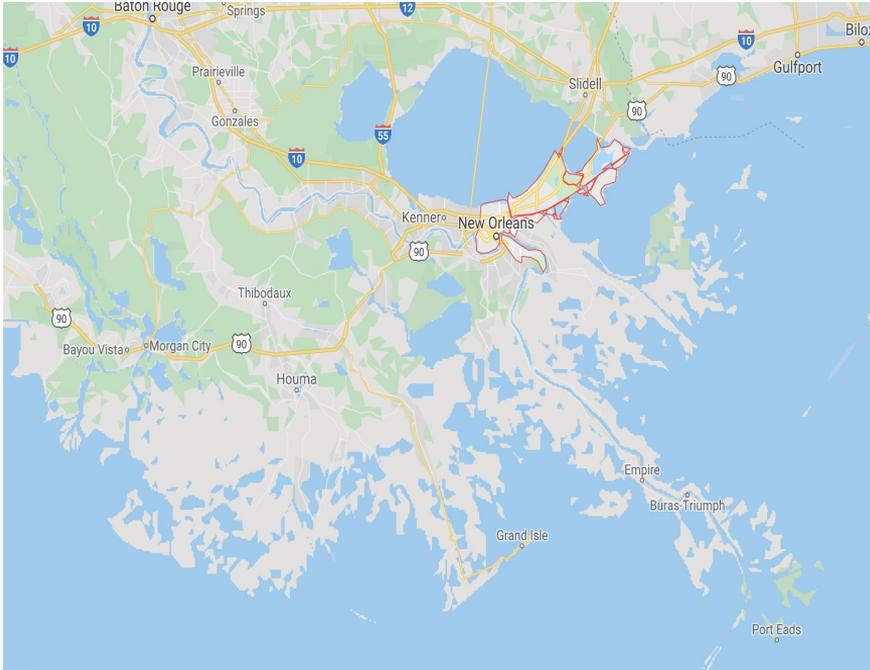
Look at the images below of New Orleans, Louisiana.

What can you notice about the surrounding area?

What problems might occur if a severe hurricane hits there?



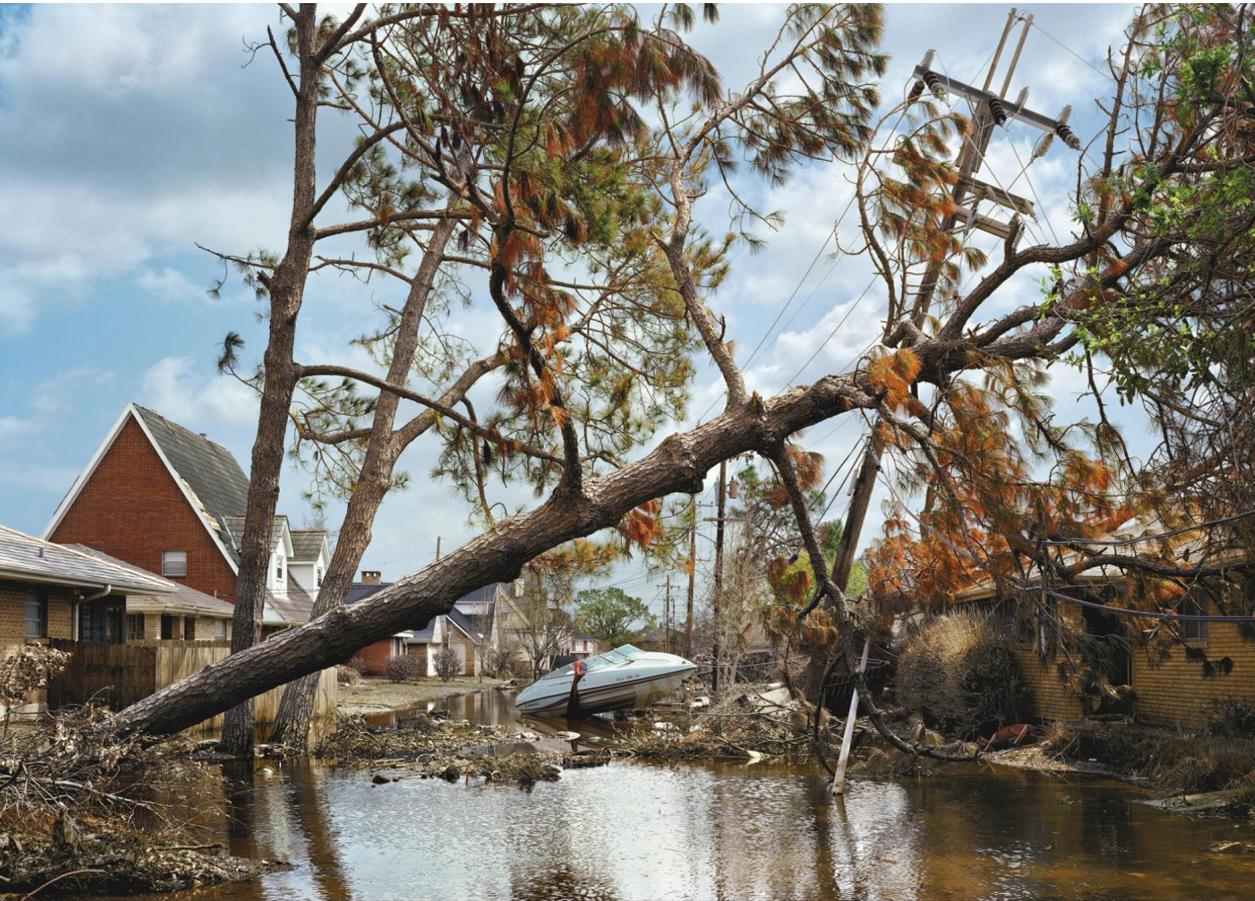
New Orleans, Louisiana is surrounded by water. Most of the land surrounding the city is flat, marshlands. Some of the city is below sea level so is already prone to flooding. This means the risk of damage from a hurricane is high, especially for flooding. Many of the buildings are very close to the coastline.



Look at the following images that show how the local environment was affected



Many people's homes were flooded; some were completely submerged (underwater).



The natural environment, such as trees, were destroyed, as well as telephone masts.



How did people react?

- Before the storm hit, an evacuation was issued for the city of New Orleans, which had a population of more than 480,000 at the time. Tens of thousands of residents fled.
- Many were not able to leave, especially those who couldn't afford to, were elderly, or lacked transport.
- An estimated 400,000 people were permanently displaced by the storm. This means they moved away from their home and couldn't return.
- Plans are in place to construct a series of flood walls, levees, and flood gates buttress the coast and banks of the Mississippi River - all to help prevent further damage if subject to another storm.

How did the change in physical environment affect tourism?

Coastal communities that relied on tourism suffered in many ways:

- They lost infrastructure - many hotels and restaurant buildings were destroyed.
- The area was not able to welcome any tourists (visitors) due to the vast amount of destruction.

Hurricane Katrina Facts!

- Hurricane Katrina was a category 3 storm with winds reaching 120mph.
- The destruction and loss of life caused by hurricane was so severe that it is often considered as one of the worst in US history.
- Approximately 1,200 people died as a result of the storm.
- It is the most expensive storm on record - it cost an estimated \$108 billion in property damage!
- An estimated 80 percent of the city was underwater.

Activity - Create a fact file about hurricane Katrina

Red - Fill in the missing gaps to complete the fact file

Yellow - Use the key words to support you writing your fact file.

Green - Use the questions to prompt your thoughts of what to include in your fact file.

Use the information from this powerpoint, and any other research that you might do, to help create your fact file!

The more facts that you can find out about hurricanes and hurricane Katrina, the better - this will help support you later this week to write your news report in English! (There are more suggestions of research tools on the next slide)

If you are interested, and want to find out more, consider the resources below:

- Check out this video which discusses key facts about hurricanes!
<https://video.nationalgeographic.com/video/101-videos/00000165-c429-de15-afef-c73da3c90000>
- The National Hurricane Center tracks and forecasts hurricanes. You can find out the latest information on hurricanes at their website:

<https://www.nhc.noaa.gov/?atlc>