

Geography Summer 2 Lesson 2

Can I identify how flooding can impact life?

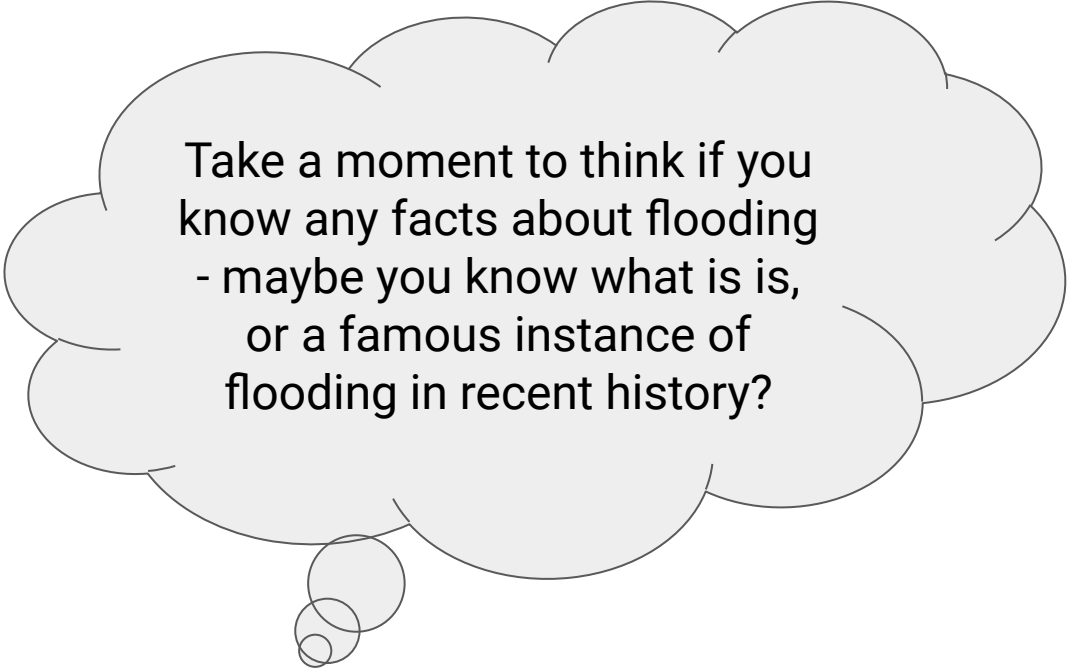
Fast Five - Answers are on the next slide

- 1) In what year did hurricane Katrina hit the US?
- 2) What is a natural disaster?
- 3) In what continent is the USA located?
- 4) Name one type of natural disaster the USA can experience.
- 5) In what continent is the UK located?

Fast Five - answers

- 1) In what year did hurricane Katrina hit the US? **2005**
- 2) 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.**
- 3) In what continent in the USA located? **North America**
- 4) Name one type of natural disaster the USA can experience. **Hurricane, tornado, earthquake or volcanic eruption.**
- 5) In what continent is the UK located? **Europe**

Today we are focusing on a different natural disaster that many areas across the world, especially the US, are vulnerable to - flooding!



Take a moment to think if you know any facts about flooding - maybe you know what it is, or a famous instance of flooding in recent history?

What is a flooding?



A flood is a rapid increase in water, often caused by torrential rain, which has nowhere to go.

Floods come in all depths, from just a couple of inches to several feet!



Why is that some places flood and others don't?

One area might receive a lot of rain and won't flood; in other areas the same amount of rainfall can have a destructive result - destroying homes and the natural environment.

What areas are prone to flooding?

Unlike with hurricanes, areas of both the US and the UK are prone to flooding.

Causes of floods include:

- hurricanes
- broken levees or dams
- rapidly thawing snow, ice jams
- heavy slow-moving rain or repeated rainfall

Areas that are nearby large rivers, that could burst their banks, and at the bottom of valleys or hills, are at highest risk of floods. The natural flow of water travels from higher levels to lower ground, so any flood water will naturally flow to the bottom of a valley or hill.

Why is flooding dangerous?

The overflowing flood water carries along objects and debris such as furniture, trees and cars. They also have a strong current meaning that people can get swept away in the flood water easily!



What are the different types of flooding?

Flash flooding

A flash flood is one that develops in less than 6 hours. These types of floods can occur almost everywhere, but are most common in low ground level areas with poor drainage systems. They often have no warning, which means people who live there are not well prepared, and can have devastating consequences.

What are the different types of flooding?

Rapid onset flooding

A rapid onset flood is one that happens very quickly and lasts between one and two days. These often cause more damage and people have less time to plan their evacuation.

What are the different types of flooding?

Slow onset flooding

A slow onset flood is one that develops slowly and can last for days, or sometimes weeks. There is often an earlier warning of this which fortunately gives people time to prepare. This type of flooding often carries diseases.



Slow onset floods occur in Bangladesh every year causing many diseases.

What are the different types of flooding?

Storm surge flooding

Storm surge flooding occurs during a storm, hurricane, or cyclone. It is a strong wave of water that sweeps onto land. It is the most dangerous flooding threat to people living along the coast.



Safety tips for flooding:

- If you have warning of flooding, be prepared to evacuate.
- Turn off the gas and electrical appliances.
- Try going to a place that is on higher ground.
- Stay away from powerlines and power cables.
- Keep a list of emergency contacts with you.
- Use extreme caution when entering buildings after a flood.



Where is the Mississippi River?

The Mississippi River is the second longest river in North America.



Mississippi River floods - April and May 2011

The Mississippi floods in 2011 were among the largest and most damaging in the US. In April 2011, two major storms deposited record levels of rainfall on the Mississippi River watershed.

The Mississippi River has the world's fourth-largest drainage basin (watershed). The watershed covers more than 1,245,000 square miles, including parts of 32 US states.

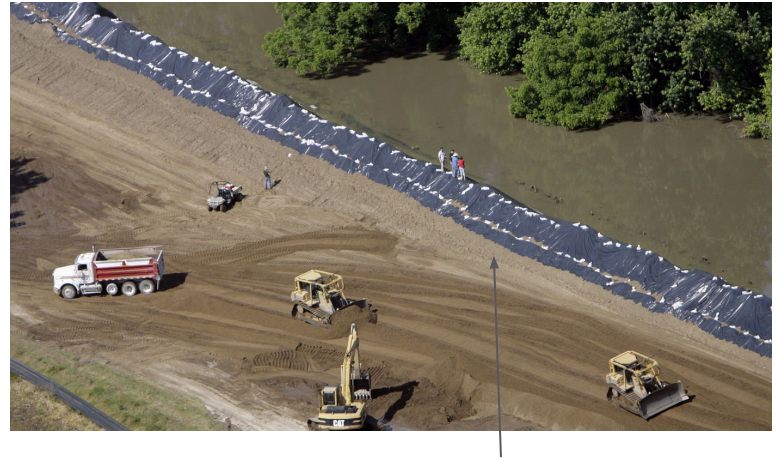
The Mississippi River floods in 2011 caused \$2.8 billion worth of damages.



Mississippi River floods - April and May 2011

The late winter and early spring of 2011 were filled with snowmelt and heavy rain events—including the [‘Tornado Super Outbreak’ of 2011](#). As a result, the Mississippi River began to swell in April.

This is an area that is prone to flooding; the most severe event was the Great Flood of 1927. Due to this flooding, the construction of numerous levees and spillways were constructed to try and contain and channel floodwaters. The system assisted in working out approximately when and where the water would break its banks and enabled state officials to shore up existing structures and evacuate residents.



A levee being constructed.

Mississippi River floods - April and May 2011

The breach of levees in Missouri, Arkansas, Mississippi, and Tennessee caused the evacuation of thousands.

More than 21,000 homes and businesses and 1.2 million acres of agricultural land were affected, and more than 43,000 people felt some effects of the floods.



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





How did people react?

- Levees were created as a result of previous flooding to help guide and control increased water flow.
- Many had to evacuate or leave their farmland. Nearly 3,500 people were evacuated.
- The closure of a main grain-shipping port, Natchez, Mississippi on May 16, sparked fears of the flood's impact on trade. The port was reopened shortly after on a limited basis. Major shipments of coal from New Orleans were also delayed.

Floods

Before a Flood

- Be prepared.
- Listen to flood warnings.
- Check that neighbours have heard warnings.
- Stack vulnerable possessions as high as possible above flood level.
- Move and secure garbage, poisons, chemicals, fuel, clean water on high ground.
- Secure heavy objects that might cause damage.
- Move pets and livestock to high ground.
- Check vehicle and fuel.
- Check food, emergency kit, water supplies.

- Seal window and doorways, and sandbag.
- Evacuate if ordered to do so.
- Take clothes, valuables, emergency kit.
- Turn off all utilities.

During a Flood

- Keep emergency and essential supplies dry.
- Try to stay dry and move to higher ground.
- Give help to others as required.
- Do not drive into water.

After a Flood

- Try to stay out of water that may be contaminated.
- Keep food and clean water away from flood water.
- Do not use flood damaged gas and electrical appliances.
- Wear sturdy shoes when walking.
- Beware of snakes, spiders, other pests that might move to dry parts of homes and sheds.
- Keep informed of flood and damage status.
- Do not drive into water.

Activity - Create a poster about the Mississippi River floods of 2011.

Red - Use the information sheet to help you create your poster.

Yellow - Use the prompting questions to help you create your poster.

Green - Create your poster.

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