

Knowledge Organiser Year 3 & 4 : Can we future-proof our planet?

Geography

- Rivers flood naturally and are a natural hazard
- People live near rivers
- When humans change natural landscapes, there can be an increased risk of flooding

Oxford

- The river Thames flows for about 215 miles from Kemble, Gloucestershire to Southend-on-Sea, Essex
- The Thames flows through 9 counties, including Oxford.
- Oxford has many locks and streams, and 2 rivers, Oxford is prone to flooding.
- Flood prevention in Oxford: more streams have been dug, grazing marshes have been created, and embankments and flood walls were also put in place.
- The Thames Barrier is a flood defence system

Lynmouth

- The river Lyn flows from Exmoor, Somerset to Lynmouth, Devon
- The Anglo-Saxon name Lynmouth means 'town on the torrent'
- Lynmouth flooded on 15th August 1952
- A flood overflow area was built above Maybridge

Bangladesh

- Bangladesh is a country in South Asia.
- The capital of Bangladesh is Dhaka.
- Bangladesh is prone to flooding due to: urbanisation, monsoons, low-lying land, deforestation, melt-water from the Himalayas.



Science: The Water Cycle

- Materials can exist in different states: liquid, solid and gas
- Materials can change from one state to another through heating and cooling.
- When a liquid is cooled it becomes a solid.
- When a liquid is heated it evaporates and becomes a gas; when a gas is cooled it condenses to become a liquid.
- Condensation and evaporation are processes of the water cycle.
- The water cycle explains why it rains (precipitation).

Materials and Properties

- How architects select materials for building homes depends on cost, availability, weight, and strength
- Some materials often used in flood resilient homes are wood, bamboo, earth, lime, concrete

History - Grandpont

Floods have been a problem for Oxford's residents for hundreds of years.

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People

'Asif' - the imaginary man on the roof. How can we help him and his community in the short and longer term.

Greta Thunberg is a young Swedish woman who campaigns internationally on climate change

Indian architect Gopalan Shankar designs flood resilient homes in Kerala, India.

Baca is a firm of British architects who have built flood resilient homes in Oxfordshire.

An NGO is a charity, like Oxfam, that supports people coping with natural disasters.

Geography: Types of flooding

Fluvial	Pluvial	Coastal	Plumbing
			
Rainfall causing rivers to burst their banks	Rainfall cannot drain away quickly enough	High tides and storms	Broken pipes in buildings

Art

- Primary colours are red, yellow and blue
- Secondary colours are made by mixing two primary colours. They are orange, purple, green.
- Tertiary colours are made by mixing a primary and a secondary colour.



- The first colour wheel was invented by Sir Isaac Newton
- JWM Turner was a painter in the 18th and 19th century
- How watercolour paper, brushes and spray bottles can be used to paint with watercolours.

Key Events	
912 AD	Oxford was founded
1775 - 1851	JWM Turner lived
1852, 1890, 1894, 1904, 1947, 1954, 1979, 1998, 2007, 2012, 2014	Some of the significant flooding events in Oxford's history
1952	Lynmouth flooded
2017	Major Floods in Bangladesh
2019	Greta Thuneberg's UN address



UN Convention of the Rights of the Child
 12 You have the right to give your opinion and for adults to take it seriously
 29 You have the right to an education which helps you learn to live peacefully, protect the environment and respect other people

Vocabulary	
Hazard	A danger or a risk
Population	All the inhabitants of a particular place
Landscape	All the features of an area of land that you can see
Campaign	An organised course of action to achieve a goal
Climate	The normal weather conditions in an area
Sustainable	Being careful about using natural resources so that the natural balance is maintained
Flood plain	An area of low-lying ground next to a river
Evacuation	Removing people from danger to a safer place
Government	A group of people who run a country
Manifesto	A published list of aims for a political party.
Community	A group of people living in the same place or sharing the same characteristic.
International	Between or across nations

RE: Did Jesus really perform miracles?

- A miracle is defined as an extraordinary but welcome event that can't fully be explained by science
- Christians believe that Jesus performed miracles such as:
 - Feeding of the 5000
 - Stilling the storm
 - Healing of paralysed man

Feeling Curious?
Links to more knowledge
[Bangladesh Case Study](#)
[Understanding Flooding](#)
[Pictures of Flooding in Oxford](#)
Books
 Mrs Noah's Pockets - Jackie Morris
 Flood – Alvaro. F. Villa
 Waterdance – Thomas Locker
 Pattan's Pumpkin – Chritra Soundar
 The Children of Green Knowe – Lucy M Boston
 This Morning I Met a Whale – Michael Morpurgo