



**We have learnt about...** flooding disasters in the UK

## How is this different to... disasters in Burma?

Cyclone Nargis struck Burma on 3 May 2008. The area it struck was a low-lying delta to the south. With it came strong winds of up to 210 kilometres per hour. It was classified as a Category 4 (Katrina was a 5) cyclone on the Saffir-Simpson scale.

Much of the devastation was a result of the storm surges (similar to Katrina) which swept up the river channels from the delta.

### Case Study – Cyclone Nargis

Location: \_\_\_\_\_

Date: \_\_\_\_\_ Wind speed: \_\_\_\_\_ Number of people affected: \_\_\_\_\_

Colour code grid to show primary effects, secondary effects and immediate and long term responses. Don't forget a key.

\$10 billion worth of damage.	Rice fields were flooded on the Irrawaddy Delta.	Around 65% of the country's rice paddies were destroyed.	Storm surge of 7.6 meters.
Flood waters penetrated 40-50km inland destroying farmland and fisheries.	50,000 people were left missing.	Structural damage was widespread causing 1 million to be homeless.	A death toll of 138,000 people is estimated.
75% of buildings collapsed but on the delta 95% collapsed.	Diseases such as typhoid spread with many survivors dying from disease.	Initially aid was refused as the military Junta did not want foreign people coming in.	6 days after the storm the government asked the UN for help.
A week after the storm the military allowed aid into the country to give food and water.	Italian flights brought food supplies into the country.	Thailand sent 30 tonnes of medical supplies into the country and \$100,000 worth of supplies.	The Indian government sent medical teams and set up 2 hospitals.

## Geog your memory...



Using B9 of your knowledge organiser, sort the below into Hard or Soft Engineering?

Afforestation – plant trees to soak up rainwater, reduces flood risk.	Straightening Channel – increases velocity to remove flood water	Artificial Levees – heightens river so flood water is contained.
Deepening or widening river to increase capacity for a flood.	Flood Barriers put in place when warning raised.	Managed Flooding – naturally let areas flood, protect settlements

**We have learnt about...** the effects of flooding

## How is this different to... effects of tropical storms?

Hurricane Katrina was the costliest tropical cyclone on record, occurring August 2005 causing \$125 billion in damage, particularly in the city of New Orleans and the surrounding areas, and over 1,200 deaths. It reached the highest category 5 with wind speeds over 150mph

### Hurricane Katrina

Location: \_\_\_\_\_

Date: \_\_\_\_\_ Wind speed: \_\_\_\_\_ Number of people affected: \_\_\_\_\_

Colour code grid to show primary effects, secondary effects and immediate and long term responses. Don't forget a key.

70-80% of New Orleans evacuated	\$50 billion in aid given by US Government .	1 million people homeless	159mph winds as a category 5 storm
5m storm surge overtopped levees	Aircraft delivery 25 tonnes of relief supplies	90% of buildings destroyed	Drinking water was contaminated by sewage for 5 months.
1800 killed	The superdome was used as an emergency shelter.	Oil facilities were damaged and petrol prices rose	3 million left without electricity

## Geog your memory...



### Causes of flooding

Identify whether the cause of flooding is physical and human.

Precipitation- torrential rainstorms and or prolonged period of rain can lead to flooding.	Geology- impermeable rocks don't allow water to pass through so it flows overland into river channels.	Relief- steep slopes means water flows quickly into river channels.
Agriculture- exposed soil can lead to an increased surface run off (especially if ploughing occurs up and down slopes.	Deforestation- when trees are removed much of the water that had been evaporate or stored on leaves and branches flows rapidly into river channels.	Urbanisation- impermeable surface such as tarmac means water flows quickly into drains, sewers and river channels.

Choose 2 causes of flooding above and explain how they cause flooding. Use the drainage basin processes such as surface run-off, infiltration etc.

1. \_\_\_\_\_

2. \_\_\_\_\_

Use B2 to help

**We have learnt about...** how people live and migrate in China

## How is this different to... migration in London?

London has also been greatly affected by migration. The large number of financial and knowledge-based job opportunities has attracted people from elsewhere in the UK and the rest of the world. In 2011, 191,000 people from elsewhere in the UK moved into London seeking employment.

It is estimated that up to a third of all international migration into the UK is into London. As a result, London has the most culturally-diverse population in the UK. It also has a different population structure to the rest of the UK, as it has many more young people and fewer older people.

### **TASK:**

#### **Impact of migration on a major UK city: London**

Identify the opportunities and challenges created by migration to London.

Teaching children whose first language is not English. (more than 300 languages are spoken in London)	London has the largest number of migrants of all the UK's regions (3.2 million foreign born people in 2015)	Migrants bring character and culture. The Notting hill Carnival is a good example of this.
A hard working workforce. It is estimated that the capitals migrant workers contribute £83 billion a year towards the capitals economy- generating economic growth and further jobs.	Overall 1 in 3 Londoners were born overseas (37%) and increase from 31%- this puts pressure on housing especially in migrant heavy boroughs such as Harrow (50% migrant population)	Many migrants recently have come from counties like Poland due to the opportunities to work in construction or the NHS, putting pressure on jobs.
Enriching the cities cultural life through the bringing in of specialist cultural food stores.	It is often difficult for the migrant population of London to integrate into the wider community and conflict can often arise.	Immigrants from particular countries tend to live in areas close to each other creating suburbs like Southall in west London.

## Geog your memory...



Q1) Where is China located?

Q2) Why did it have to implement the one child policy?

Q3) What were the impacts of the one child policy

Q4) Research why the Kenyan flag is black, red, white and green?

Use C6 of your knowledge organiser

**We have learnt about...** human impacts on cities

**How is this different to...** human impacts on the environment?

## Wildfires in Australia

Record-breaking temperatures and months of severe drought have fuelled a series of massive bushfires across Australia. At least 33 people have been killed - including four firefighters - and more than 11 million hectares (110,000 sq km or 27.2 million acres) of bush, forest and parks across Australia has burned.

Identify CAUSES / EFFECTS / MANAGEMENT of the 2019 Australian Wildfires

Creeks and rivers dried up causing the organisms relying on them to die or migrate.	Increased soil erosion destroyed vegetation and the creatures which relied on it to survive.	Each year there is a fire season during the Australian summer, with hot, dry weather making it easy for blazes to start and spread. Global warming is making these worse
Australia has drafted in 3,000 army personal to assist	3,800 firefighters have been tackling the blaze	Record-breaking temperatures and draught have helped causes the wildfires
Significant loss of livestock and crops. Some farmers had to sell machinery, land or even move elsewhere and lose their livelihood.	Using aircraft to "firebomb" water onto fires or drop retardant from the sky above	With fewer crops and livestock, Australia had to import more food. This increased the price of food for the whole country.
Destructive farming practices enable a vicious cycle of warming and wildfires	Droughts degrade the quality of the soil, affecting farming for years to come.	Using bulldozers to create "firebreaks" - gaps in vegetation that help slow the advance of flames.

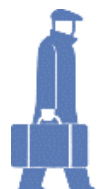
# Geog your memory...



Q1) What is urbanisation?

Use A1 of your knowledge organiser

Q2) Where is urbanisation happening?



Q3 Using A2 of your knowledge organiser – Set the reasons for why people move to cities into push and pull factors.

PUSH

PULL

## We have learnt about... importance of cities

### How is this different to... Birmingham's importance?

The city of Birmingham, in England, is an important manufacturing and engineering centre, employing over 100,000 people in the industry and contributing billions of pounds to the national economy.

Task: using colours – categorise into National (Birmingham's importance to the UK) or international (worldwide importance)

#### Case Study – Birmingham's Importance

Location: \_\_\_\_\_

Categorise into National or International importance.

Direct rail links to many UK cities. Used by over 34 million people per year	Over 300 companies from outside of the UK are based in Birmingham.	Birmingham has over 9 million users in 2014.	Rated in the top 15 best cities in Europe in 2009
New Street Station is the busiest station outside of London	Birmingham airport connects the city to Africa, South America as well as US and China.	Excellent job opportunities including 200 UK law firms	Damage of the flood estimated to be over £100 million.
£13 billion invested in infrastructure over the next decade to make it a city of global importance	Birmingham is one of the greenest UK cities with over 8,000 acres of parks	Birmingham's hippodrome is the busiest theatre in the UK with over 500K visitors per year	Major companies such as Cadbury and Jaguar are located in Birmingham

## Geog your memory...



#### Case Study – Dharavi

Location: \_\_\_\_\_

Positives or Negatives of slum life?

1000s of small factories	75% of people have a job	The annual turnover of the slum is \$350 million
A lack of sewers and clean drinking water causes huge cases of disease such as cholera	80% of all waste is recycled	It is overcrowded, noisy and smelly.
A strong sense of community spirit and pride in how they look	Pollution and disease is common with 4,000 cases of typhoid each day	Houses are built of poor material and lack services such as electricity

**Use C7 of your knowledge organiser, using two colours, sort the boxes into negatives and positives of slum living in Dharavi**

**We have learnt about...** the flooding in the UK

## How is this different to... deforestation in Malaysia

**Malaysia** has the world's highest **deforestation** rate. **Malaysia's** total forest loss since the year 2000 is 47,278 square kilometers (18,244 square miles), an area larger than Denmark.

### Case Study – Deforestation in Malaysian Rainforest

Colour code the boxes to show causes, impacts and management.

Location: \_\_\_\_\_

Malaysia's forests are increasingly being converted for industrial oil palm plantations. Between 2000-2012 Malaysia's oil palm estate grew by roughly 50 percent	Intensive logging of Penan areas began in the 1960s. Now there are rivers are filled with silt not fish. Tribal people have moved to the cities where they get sick from drinking polluted water and have trouble growing rice.	Deforestation has already left thousands homeless. Without trees and plants to absorb heavy rainfalls, deforestation has caused erosion and faster runoff, which has led to larger and more frequent flood in Sarawak and Sabah
Deforestation will release some of the carbon stored in the rainforest into the atmosphere contributing to global warming.	Selective logging – where only some trees are cut down, these trees are also taken out of the rainforest via helicopter.	Landless farmers cut down the trees so they have land in order to farm, some farmers need more land as their current land is unusable.
Ecotourism is encouraged, only a small number of visitors are allowed at a time.	Malaysia had the world's highest rate of forest loss between 2000 and 2012.	Local people in Sarawak cut and burn patches of forest and grow crops such as hill rice, cassava and fruit crops in the ash-enriched soil.
The Malaysian government has promised that 50 percent of Malaysia will remain covered by forests and has urged other developing countries to make similar commitments	The Malaysian government sponsored migration programs to open up rainforest for cash crop production. Between 1956 and the 1980s, Malaysia converted more than 15,000 square kilometres of forest for population resettlement programs.	International hardwood agreement has reduced illegal logging and promoted sustainable management.

**Exam Question: For a tropical rainforest you have studied, assess the extent to which deforestation benefits the people who live there. (9 marks)**

## Geog your memory..



1. Read b4 of your knowledge organiser. Use this to help you label the diagram below explaining how a waterfall forms



**We have learnt about...** water pollution in Dharavi, India

## How is this different to... pollution in the UK?

40% OF RIVERS IN ENGLAND AND WALES POLLUTED BY SEWAGE. River health is one of the UK's most urgent environmental crises. ... But far too many of our rivers are polluted with sewage, and water companies and government are not doing enough to prevent it. According to the World Health Association the UK's water pollution is moderate –

### Water pollution in the UK

Identify whether each statement is either a cause or effect of water pollution.

Chemical pesticides and fertilisers running from farm land.	Pesticides kills aquatic life.	Oil from boats and ships.	Inappropriate items (e.g. engine oil) put down drains.
Hot water cooling processes in rivers pumped from industry into rivers.	Toxic waste poisons wildlife, which can be transferred to humans if they eat contaminated shellfish or fish. This can lead to birth defects or even cancer.	Fishermen and the tourist industry, depending on clean water suffer economic losses.	Fertilisers can speed up the growth of algae and lead to eutrophication. This means wildlife dies as there is insufficient oxygen in the water.
Drinking water can be poisoned.	Untreated waste (containing metals and chemicals) from industries.	Oil, heavy metals from vehicle exhausts and road gritting salt run off from roads.	Micro bacteria in sewage spreads infectious diseases in aquatic life and humans.

## Geog your memory...



Use A4 of your knowledge organiser to help – explain how India is trying to solve the problems of living in a slum

What does sustainable urban living mean (A5)

**We have learnt about...** the environment in the UK

**How is this different to...** the Western Desert in the USA

**Case study: Western Desert**

Location: \_\_\_\_\_

Climate and background: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

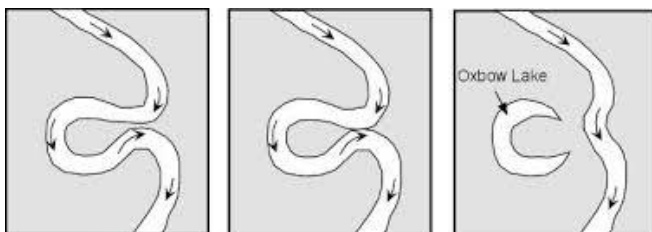
Categorise the statements into challenges, opportunities and adaptations to the desert.

The Hoover Dam has supplied water for drinking and irrigation.	Water could be a major problem as populations in cities increase.	Rich reserves of copper, uranium and coal.	Traditional houses have thick earth walls to keep homes cool.
Work outside is very hard especially for farmers who have to work during the day.	The average temperature is 27 degrees Celsius.	High temperatures lead to high rates of evaporation and water shortages.	Many people visit the National Parks (Grand Canyon) and wilderness areas.
Irrigation allows commercial farming to thrive in the Coachella Valley.	Solar energy is being developed. E.g. Sonoran Solar Project.	The low population density means there is a lack of surfaced roads.	Some major highways have been constructed such as Route 66 and 70.



Using the picture and table to help; what tourism opportunities do you think there are in the Western Desert?

# Geog your memory...



Using B6 of your knowledge organiser – explain how meanders and ox bow lakes form



**We have learnt about...** levels of development

**How is this different to...** development in the UK?

**Causes of uneven development**

Identify whether the cause is physical, economic or historical.

Landlocked countries are cut off from seaborne trade, which is important for economic growth.	Almost all the wealth produced during the colonial period went to European powers.	Supply of raw materials often outstrips demand, which keeps prices low.
LICs and NEEs traditionally exported primary products, although in the last 20 years some have developed manufacturing.	Extreme weather such as cyclones, droughts and floods can slow development and it can be costly to repair damaged infrastructure.	Independence has been a difficult process resulting in civil wars and political struggles for power, which has continued to hold back development.
The processing of raw materials (which adds value) often takes place in richer countries.	The price of raw materials fluctuates a lot, this means that farmers can never be sure of the price they will get for their product.	Climate related diseases and pests affect the ability of the population to stay healthy enough to work.

**Geog your memory...**



**Case Study – Somerset Flooding**

Categorise the effects, social, economic or environmental.

Over 1300 homes were flooded and contaminated with sewage	Stagnant water needed treating before it could be pumped into rivers.	Huge amount of debris needed to be cleared.	1 death
Many people lost power for almost a month.	Local roads cut off by flood water.	Over 14000ha of agricultural land under water for 4 weeks.	Damage of the flood estimated to be over £100 million.
16 farms evacuated.	50 people evacuated via helicopter.	The cost of putting right the damage was an average of £28,000 per house	Over 1000 livestock evacuated

**Why would the UK (HIC) be able to deal with a flooding natural disaster rather than a LIC?**

**We have learnt about...** urban regeneration in Mumbai, India

## How is this different to... London?



London has recently held the Olympic Games. The city regenerated areas (improved them for the games).

Using 3 colours sort the table into

- 1) Reasons for the regeneration (improvement) 2) Features of the regeneration 3) Impacts of the regeneration

2)

### Example: Urban regeneration (Olympic Park, London)

Background information: \_\_\_\_\_

Identify the reasons for the regeneration, features of the regeneration and impacts.

Much of the area was derelict, abandoned or occupied by low value land uses.	The Athletes village has been converted into housing units for local people.	The area now contains excellent modern sports arenas.	There is now a landscaped park with tourist attractions and natural habitats.
It is easily accessible from London and elsewhere in the UK, particularly by train.	Construction of bridges over waterways to improve access.	The deprived nature of the area meant that it was hoped it would benefit greatly from the 2012 Olympics.	Electricity cables were buried under the ground to improve the appearance.
Decontamination of land that was used for industrial purposes.	Landscaping to create natural habitats.	Landscaping to improve the overall attractiveness.	The purchase of the land under a single authority.

## Geog your memory...



**Read A5 of your knowledge organiser.** Use this to help you rank the problems in Dharavi in order of the most urgent or important to resolve (1) to the least urgent or important to resolve (7).

- Access to clean water
- Poor sanitation
- Overcrowding
- Unemployment
- Disease
- Access to electricity
- Access to education

2. Explain why you identified the problem you ranked as no. 1, as the most urgent or important.