

YEAR 9 UNIT 4: Challenges and Opportunities in the UK

How is poverty measured in the UK?

A household is in poverty if its members earn less than around £15,000 a year.

KEY TERMS

Poverty -when someone cannot afford basic needs, such as food, housing, water and healthcare.

Irrigation – using channels or sprinklers to water crops.

Water stress – when too much water is needed and not enough is available.

Aquifer – an underground layer of rock that holds water.

landfill – the dumping of waste in massive piles or large holes before burying it with soil.

Carbon dioxide – a colourless gas that forms when fossil fuels are burnt.

Nitrogen dioxide – a reddish-brown gas common in air pollution.

Asthma –an illness that make sit hard to breathe.

Traffic Congestion - when there are too many vehicles on the road.

fossil fuels – non-renewable energy sources e/g/ coal, oil, and natural gas.

Consumption – using up a resource.

Energy conservation – taking steps to reduce the amount of energy used.

Non-renewable – sources that cannot be replaced once they are used.

Energy security – the availability of natural resources that allow a country to produce enough affordable energy to meet all its needs.

POVERTY IN THE UK - Why are people poor?

There are many reasons, such as;

- A job may not pay enough to meet basic needs. 60% of people in poverty had one family member in work (2017)
- Most people would need to be paid £8.21 an hour to meet their living costs – the 'living wage' (£2 higher in London).
- Its hard to get out of poverty if you do not have a well paid job

What can be done about poverty?

In the UK, ways to help people who live in poverty include;

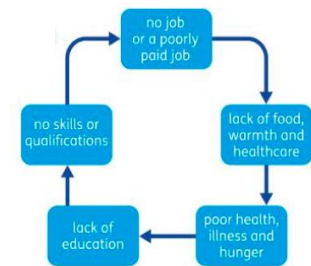
- Making sure they attend school and get some qualifications to improve their chances of getting a better paid job.
- Helping to pay for medicine, housing, heat, electricity and food.
- Providing more affordable housing.

What is being done about homelessness in the UK? – The UK government and charities are working hard to reduce poverty

The government will spend £100 million on trying to make sure that no one is sleeping on the streets by 2027. They will build new homes and provide extra help for people without a home.

Charities and community groups give homeless young people a place to stay and help them get the skills they need to get a job. Homeless young people may be offered a place in a hostel.

SteetLink is a mobile phone app that allows you to log details about a homeless person so that local government or a charity can help them.



The cycle of poverty

WATER SUPPLIES – The water we use in our homes only makes up 10% of global water use, 20% is used in industry and 70% is use din agriculture.

1976 – No rain for 45 days, reservoir levels dropped dangerously low, water supplies were cut off and communal taps installed in the streets!

2018 Heatwave - The UK experienced the same weather conditions as 1976 and many areas were at risk from water stress. 35°C recorded in Kent, SE England had no rain for 58 days and some reservoirs were 20% lower than their average levels. Impacts – crops dying, people banned from using hosepipes, many wildfires and increased tourism around the UK.

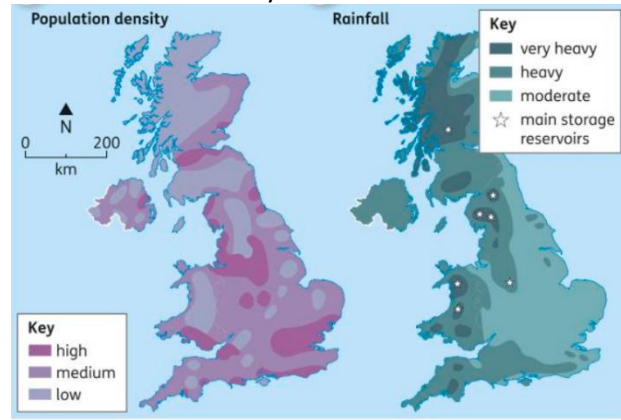


Where does your water come from?

Around one-third of the water is stored in underground aquifers and the rest is stored in reservoirs, lakes and rivers.

Is there enough for everyone?

The rain doesn't always fall where it is needed.



Population density of the UK

Average rainfall levels in the UK

You could use water carefully, repair leaks, use recycled water from homes on crops and transfer water to area that need it.

Building new reservoirs

BENEFITS	PROBLEMS
Makes sure there is enough water for the area its needed.	Destroys habitats needed by birds and animals.
Can be used for activities such as walking, fishing, sailing and birdwatching.	The traffic and noise whilst being built would be a nuisance and disruptive.
Provides an attractive, peaceful landscape with wooded hills and walkways.	It would increase the risk of flooding.



Waste Management

50% of all household waste ends up in landfill. This is not good for the environment due to the release of the harmful greenhouse gas, methane as the waste breaks down and chemicals from the waste can seep through the ground into to the water.

The Three Rs – Reduce, Reuse, Recycle.

Recycling – Almost two-thirds of all waste going in your bin can be recycled.

Around 29% of plastic bottles are recycled and remade into things like clothes, traffic cones and toys. Food can be composted and sold to farmers to add to their soil to improve their crops.

Global Waste Trade – The UK has too much recycling for us to process here so it is exported to other countries e.g. Malaysia, China and Indonesia.

Reducing Waste – solutions include: banning plastic straws, deposit return schemes and zero-waste shops.



Air Pollution

In the UK there are estimated to be 280,000 deaths due to transport related pollution.

The main cause of transport-related air pollution is the rapid rise in the use of cars. Road transport accounts for over half of the nitrogen dioxide gas we breathe in.

Impacts of traffic congestion – air pollution from traffic can cause an increased risk of babies being born underweight, increases the risk of getting lung or heart disease and can trigger asthma attacks.

Cutting down on car use – solutions include: electric cars, dockless bikes, car sharing apps and clean air zones.



Energy

Most of the energy we sue today comes from fossil fuels, which are finite and polluting. Energy consumption has increased due to more people having appliances such as washing machines and microwaves; people have more entertainment such as TVs, mobile phones and games consoles; the use of central heating has increased.

Should we use coal for energy? Advantages: its cheap to mine and to generate electricity, there is more of it than gas and oil and it can produce energy all day everyday unlike wind. **Disadvantages:** when burnt it sends harmful pollution into the atmosphere, it is finite and around 70% of the coal used in the UK is imported.

Alternatives? Wind power is an important source of renewable energy. Because of its windy weather especially along the coastline, the UK is one of the best locations for wind power in Europe. Fracking s a technique used t get gas and oil from shale rock deep underground. Some people are concerned that this process causes mini earthquakes and contaminates water supplies.

