

POPULATION



YEAR SIX SPRING TERM

NAME:

TEACHER:

Geographical Skills



Continue to develop secure locational place knowledge.



Understand how knowledge of the world is constructed from a range of sources.
Analyse these sources.



Compare two or more places in different locations



Regularly address and sometimes devise geographically valid questions.



Understand the impact that human/physical geography has on an area or region.



Develop use of appropriate geographical terms.



Carry out fieldwork to gain a deeper understanding of an area



Construct informed responses by selecting and organising relevant geographical information.

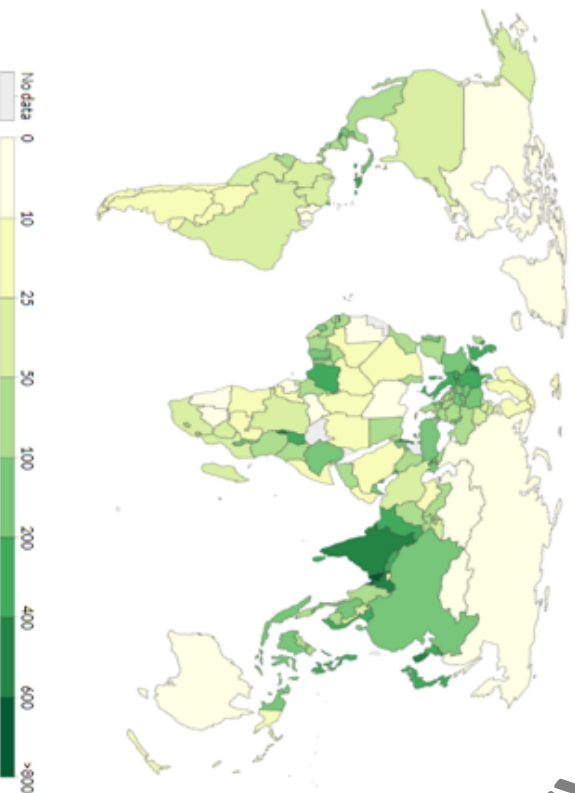
Population pyramids

1. A population pyramid is a graph which shows the age and gender structure of a population.
2. A developing country has a pyramid that has a very wide base. This means that there is a high proportion of young people which suggests there is a high birth rate
3. A developing country has a pyramid that will have a narrow top. This means that only a small proportion of people reach old age.
4. A developed country has a more even distribution of bars. Birth rates are not as high as in developing countries and people live to an older age.

Possible effects of over population

1. The development of slums- particularly in developing countries.
2. Slums can occur when people migrate from rural areas into cities in search of jobs.
3. Because of overpopulation, forests are being destroyed to find accommodation. This increases global warming.
4. Global warming means our earth is heating up, causing the weather to become more unpredictable and extreme.
5. Although there is enough food produced in the world to feed everyone, it is distributed unequally. This will only get worse as the population increases.

Population density



Vocabulary

1	Population distribution	A pattern of where people live. World Population Distribution is uneven.
2	Migration	The movement by people from one place to another, particularly different countries, with the intention of settling temporarily or permanently in the new location.
3	Developed Country	A country with a lot of industrial activity and where people generally have high incomes.
4	Developing Country	A poor agricultural country that is seeking to become more advanced economically and socially.
5	Slum	A squalid and overcrowded urban street or district inhabited by very poor people.
6	Life Expectancy	The average period that a person may expect to live.
7	Pensioners	A person who collects a pension (a regular payment by the government), most commonly because of retirement from the workforce.
8	Wealth	An abundance of valuable possessions or money.
9	Malnutrition	Experiencing a lack of quantity and variety of food over a long period of time.
10	Famine	An extreme shortage of food for a large number of people.
11	Urbanisation	When populations of people grow, the population of a place may spill over from city to nearby areas. This is called urbanisation.

Most populated countries in the world

1.	China
2.	India
3.	United States of America
4.	Indonesia
5.	Brazil

Lesson One: Population density

Key question: How many people are in the world?

Recap

You have studied the concept of population a lot during KS2. See if you can recall this information:

1a) Think back to Prehistoric Britain in year 3. During the Bronze Age, a group of people migrated from Europe into Britain. This completely changed the population of Britain at the time. What were these people called?

Neanderthals

Beaker People

Romans



1b) Think back to Ancient Egypt in year 3. Where did the majority of the population live near? (Hint- 95% of the population still live near there today).



1c) Think back to your studies on Brazil in year 5. You looked at population migration- people moving from the countryside to the city. What can this cause? The first letter has been given.

U _____



How many people live on the planet?

The world population is the total number of humans currently living on Earth. It is difficult to give an exact figure for this but it was estimated to have reached 7.7 billion people as of May 2020. This is 200,000 more people than the previous day.

Population growth

The world's population does not stay the same. In fact, over the last few hundred years it has been growing faster and faster.

In the entire world, there has been an explosion in population. During the 1st century AD, the world population was about 300,000 people. The

current population is over 7 billion, and most of the growth has taken place within the last 100 years. In fact, in the late 1990s, the world population was 5.9 billion, which increased to over 7 billion in 2011. During the 1960s the population was half what it is today.

The world population is still growing rapidly. Although the rate of growth

is slowing slightly, there are so many young people that population will continue to grow for some time.

The **UN (United Nations)** estimates that the current pace of population growth is adding 78 million more people to the planet every year, and that the population may have exceeded 10 billion by the end of the 21st century.



Source:

<https://earthsky.org/human-world/this-date-in-science-6-billion-humans-and-counting>

Use the graph to answer the questions:



2a) Approximately what year did the population of the world hit 2 billion people? _____

2b) What was the approximate population of the world in the year 2000? _____

2c) From the graph, what do you expect the population of the world to be in 2050? _____

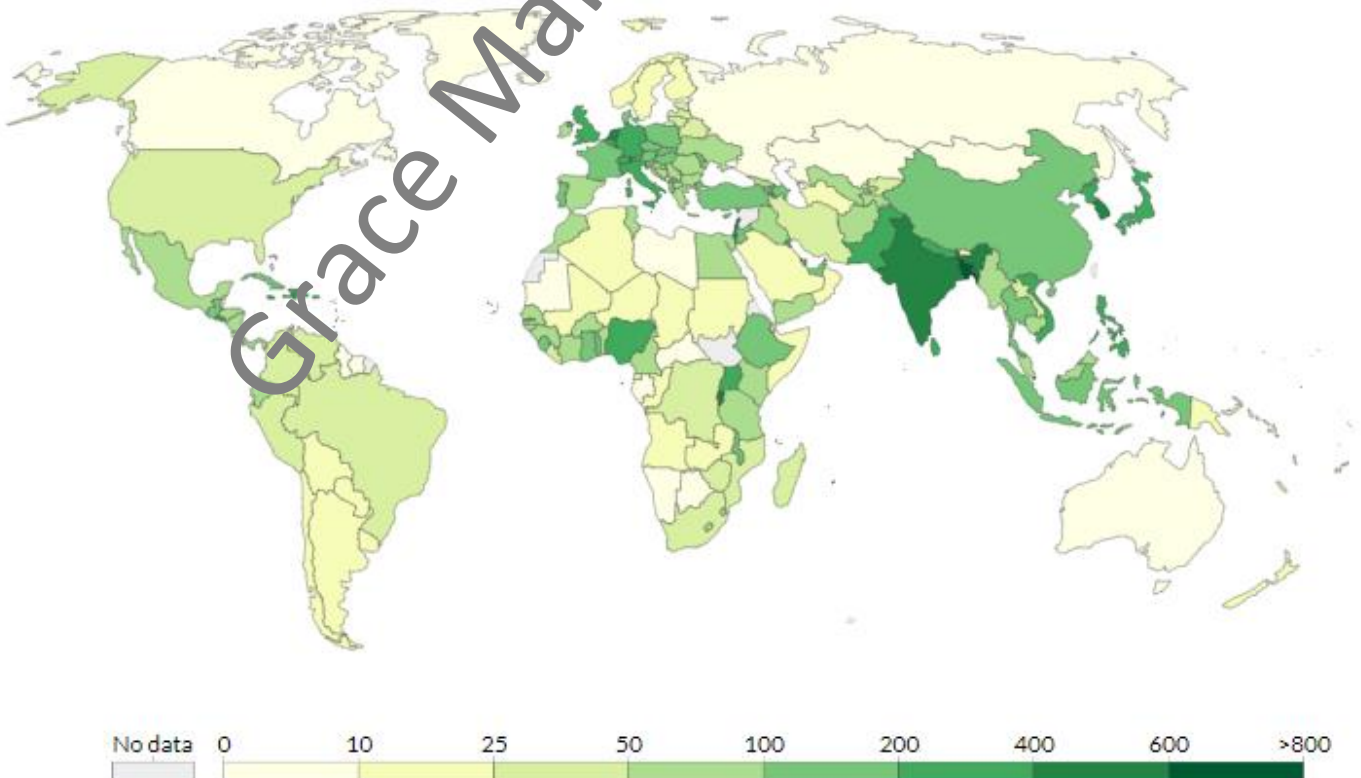
Where are people distributed globally?

World **population distribution** describes how people are spread out across the globe. The human population is not spread out evenly. Few people live in locations that are **sparsely populated** and **densely populated** places have many.

Map: Global Population Distribution showing number of people per km²

Population density, 2017

Population density is defined as the number of people divided by land area, measured in square kilometers (km²).



Source:

<https://ourworldindata.org/grapher/population-density?year=latest>

Use the map of population distribution to answer the questions:



3a) Name two countries with some of the highest population densities:

3b) Name two countries with some of the lowest population densities:

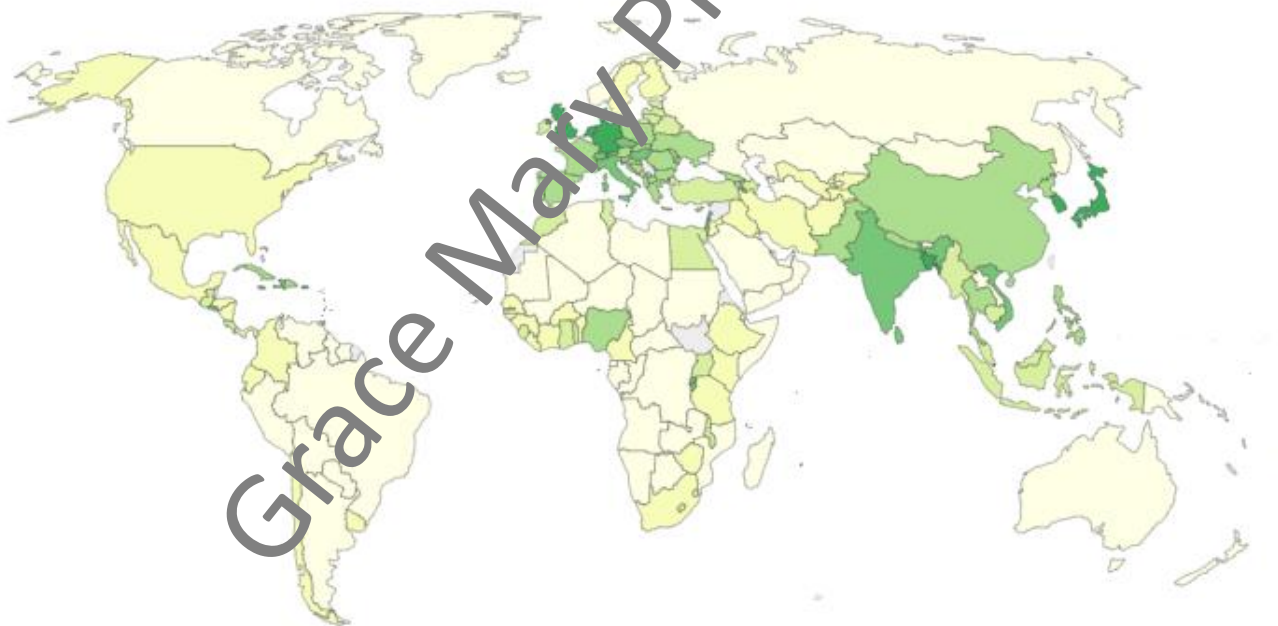
3c) The population density in Brazil is _____ per kilometre squared.

3d) Australia has a population density of _____ per kilometre squared.

Below shows a world map of population density from 1961.

Population density, 1961

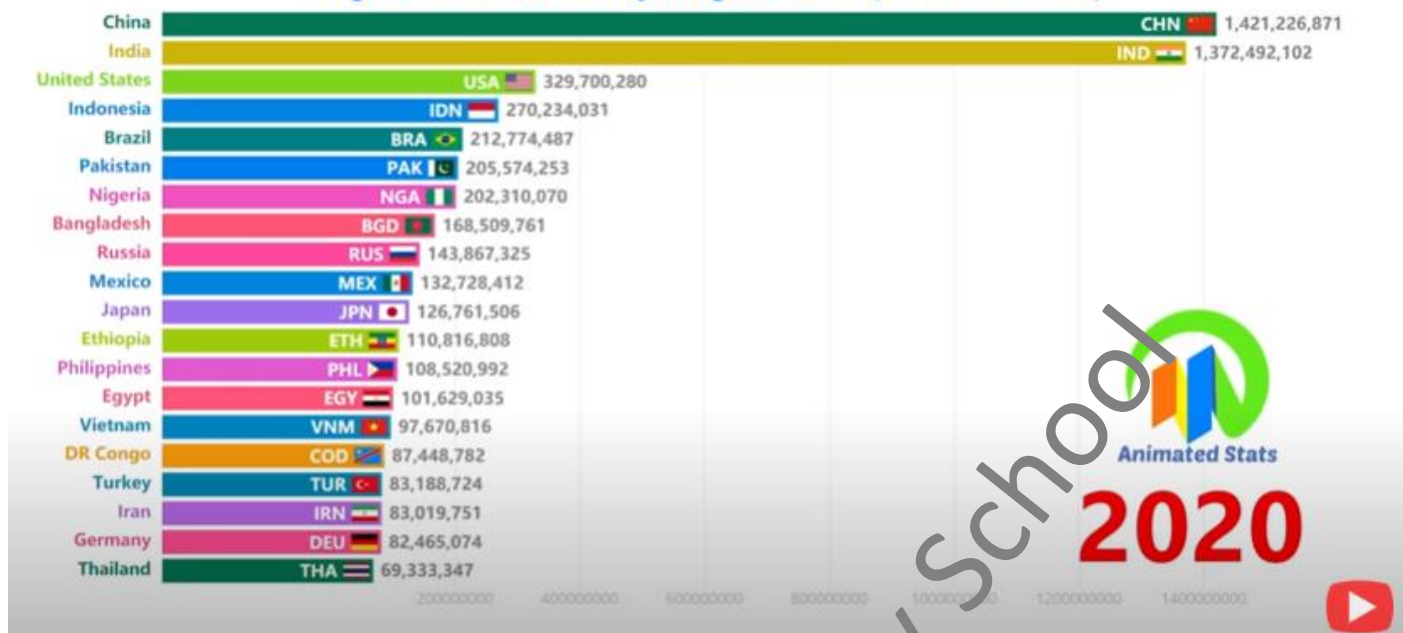
Population density is defined as the number of people divided by land area, measured in square kilometers (km²).



Source:

<https://ourworldindata.org/grapher/population-density?year=earliest>

Top 20 Countries by Population (1950 to 2100)



Source:

<https://www.youtube.com/watch?v=eQ3DmduyyQ>



3) Analyse the charts. What is the same? What is different?

Same	Different

Review

1) The approximate population of the world is:

6.1 billion 7.8 billion 10.9 billion

2) Circle the correct answer in the sentence:

The population of the world is increasing/decreasing.

3) Circle the countries below that have a high population density:

India Greenland Australia UK China

4) List the top 5 most populated countries in the world in order:

1)

2)

3)

4)

5)

Lesson Two: Population change

Key question: Why does population change?

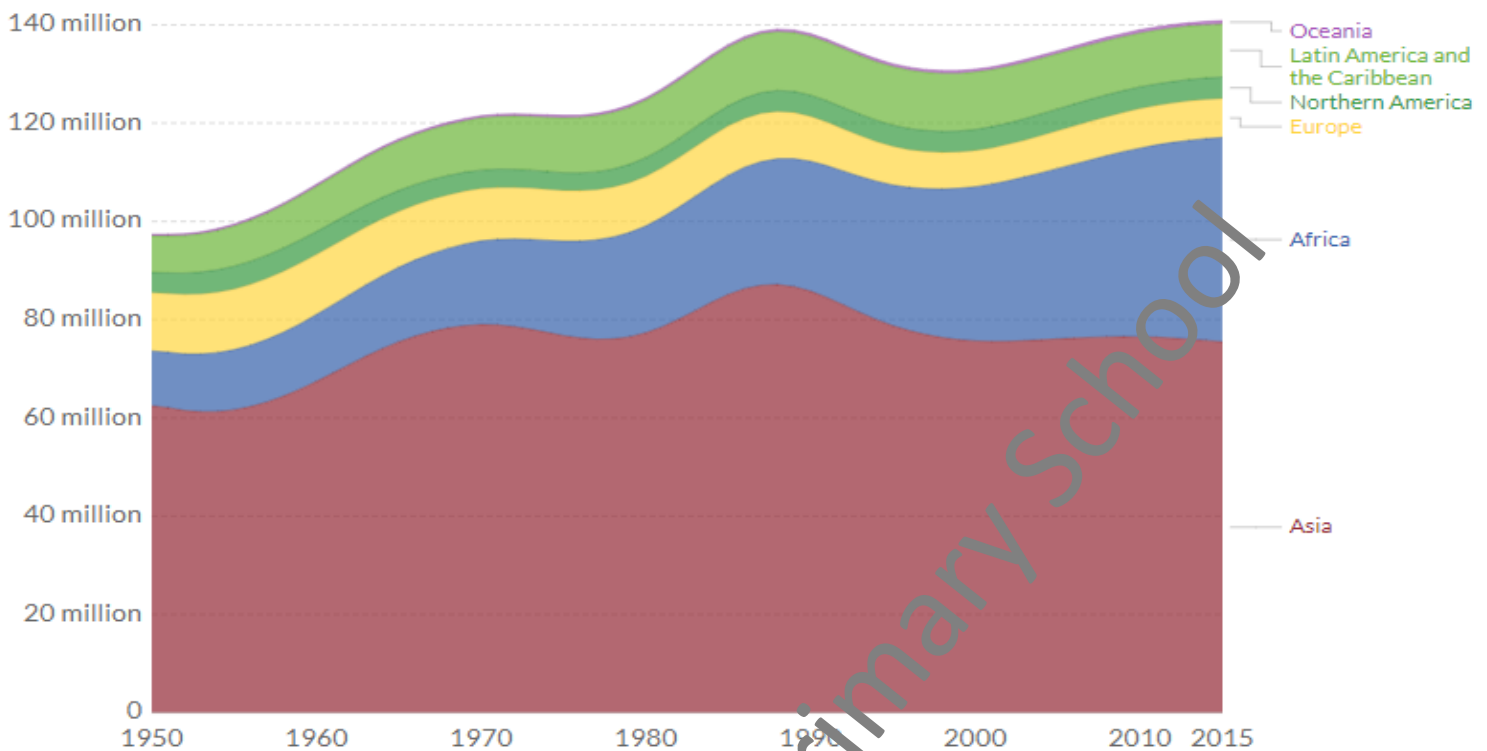
Why is the population changing?

There are three main reasons as to what causes population to change:

- births rates (causes world population change)
- deaths rate (causes world population change)
- migration (causes country or place population change)

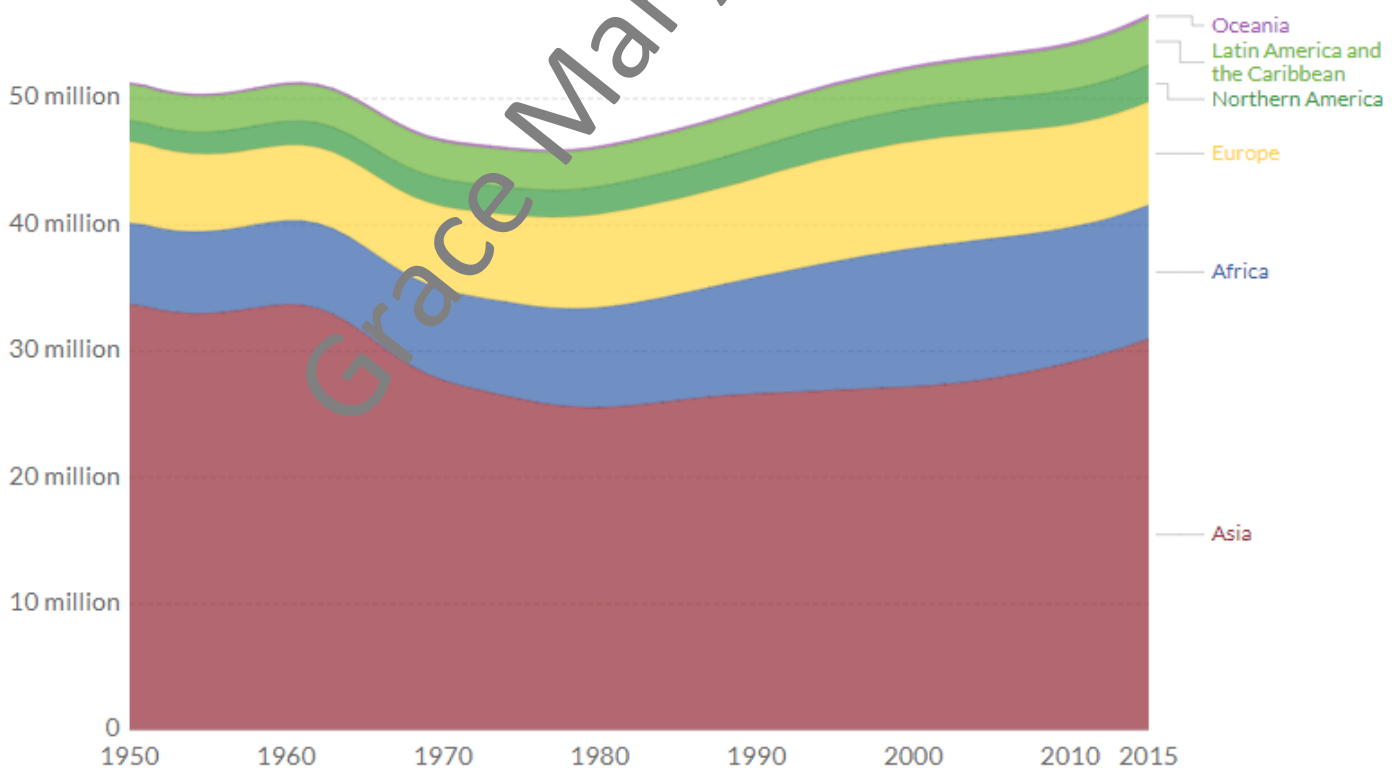
Annual number of births by world region

Our World
in Data



Annual number of deaths by world region

Our World
in Data



Source:

<https://ourworldindata.org/grapher/annual-number-of-births-by-world-region>

How many people are born and die in the world every year?

The two charts on the previous page show the annual number of world births from 1950-2015 and the annual number of deaths from 1950-2015. The interactive graphs can be found on the following website: <https://ourworldindata.org/world-population-growth>

1) Use the website to complete the statements below:



1a) In Asia, in 1950, there were approximately 34 million deaths. In Asia, in 1950, there were approximately 62 million births. This led to an approximate increase in world population of _____

1b) In Africa, in 2000, there were approximately _____ deaths. In Africa, in 2000, there were approximately _____ births. This led to an approximate increase in world population of _____

1c) In _____, in _____, there were approximately _____ deaths. In _____, in _____, there were approximately _____ births. This led to an approximate increase in world population of _____

2) What was the total increase in world population in 2015?

3) What do you notice about the birth and death rate in Europe in 2010? Does this surprise you? Why?

Why do birth and death rates change?

Social and **economic** indicators influence birth death rates.

In **developed countries**, like the UK, birth and death rates are low.

Birth rates are low because:

- Careers can be considered more important than having a family.
- The cost of raising a family has increased.
- People marry later so there is less

opportunity to have large families.

- Women's status has improved.

Death rates are low because:

- Advances in modern medicine.
- Vaccinations against diseases.
- Improvements in water and sanitation.
- Good food production and storage.
- Good food transportation.

The population in the developed world is fairly stable and neither rising or falling significantly.

In **developing countries**, like India, death rates have also decreased but birth rates are increasing.

Birth rates are high because:

- Children need to bring in an **income** for the family.
- Children are required to look after elderly people because of a lack of **pensions**.
- High **mortality** rates so families have more children in the hope that some survive.

Death rates are fairly high because:

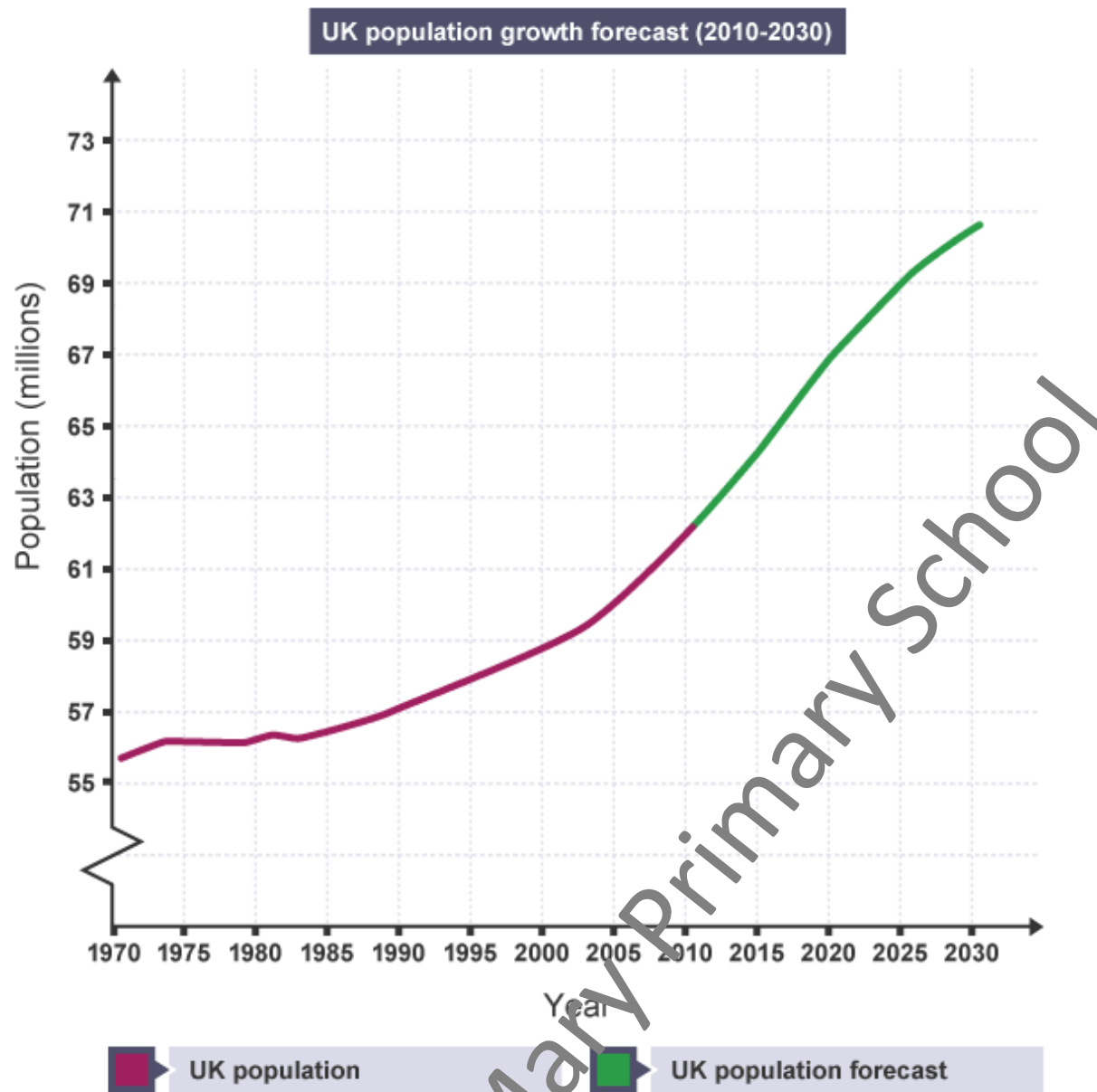
- Lack of food caused by **famine**.
- Lack of clean drinking water.
- Natural disasters destroying crops.
- Lack of doctors and healthcare.
- War

As birth rates are higher than death rates in developing countries, this leads to rapid population growth.

4) How does the information you have just read, help you understand the data from question 3? (Hint- Europe is a continent with mostly developed countries).

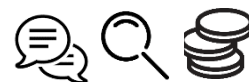


How has the population of the UK changed?



Source: <https://www.bbc.co.uk/bitesize/guides/z8k9ng8/revision/1>

5) Summarise what the graph shows about UK population and UK population forecast:



Birth rates are low in the UK because:

- women are marrying later and delaying starting a family due to career building
- the high cost of living makes bringing up children expensive
- couples may prefer to spend money on things such as holidays and cars

Death rates are low in the UK because:

- health care is modern and widely available, provided free by the NHS
- people have less physically-demanding jobs
- modern medicines treat many diseases
- people are better educated about health and hygiene
- higher incomes enable people to eat a healthy diet and have good living conditions

How does human migration play a part in the increase in UK population?

Human migration is the movement of people from one place to another with the intentions of settling, permanently or temporarily at a new location.

People migrate to the UK from Europe for many reasons:

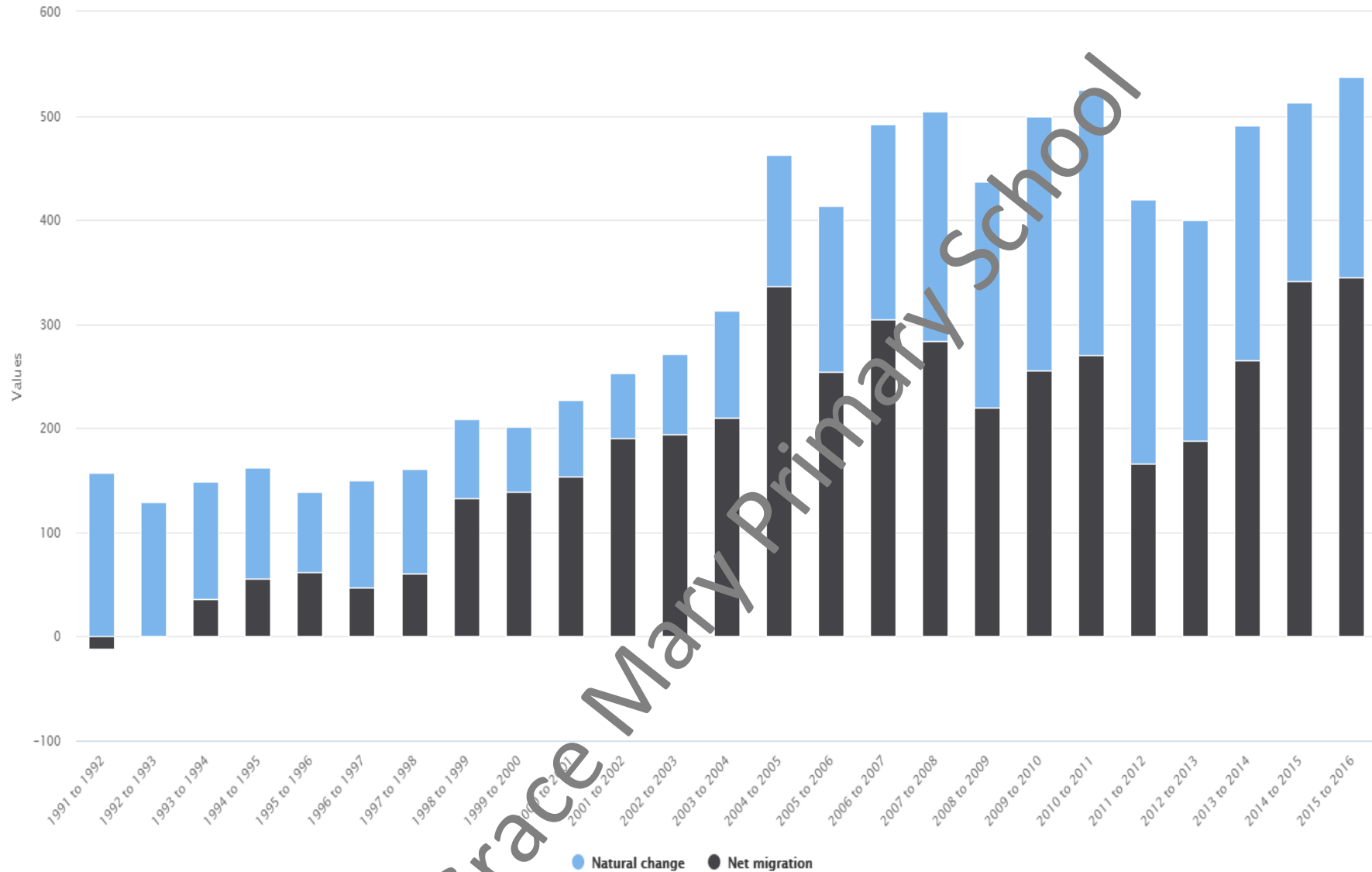


Source:

<https://fullfact.org/immigration/why-do-international-migrants-come-uk/>

Annual population change: 1991-2016

Chart provided by www.migrationobservatory.ox.ac.uk



Office of National Statistics. Mid-year population estimates

Source:

<https://migrationobservatory.ox.ac.uk/resources/datavisuals/uk-annual-population-change-1991-2014/>

6) Think about what you have read and what the graph is telling you. What is the main factor in the UK population increasing?

Birth and death rates

☐

Migration

☐

Both

☐

Explain your answer:



Grace Mary Primary School

Review

1) What are the three key factors in population change?

-
-
-

2) Match the statements to whether they apply to a developed country or a developing country:

Birth rate and death rate are pretty equal so the population remains stable.

Children are needed to bring in extra income.

Developed countries

Death rates are low because of advances in modern medicine.

Developing countries

Birth rates are much higher than death rates.

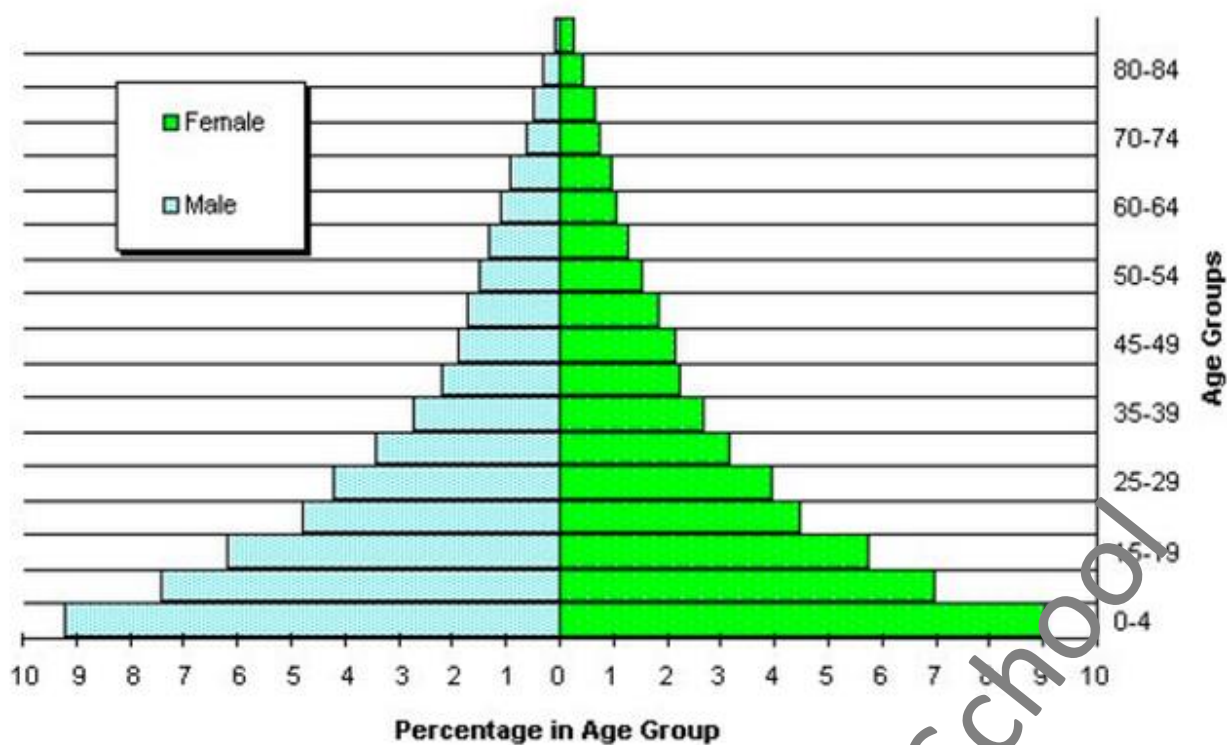
3) Give three reasons why people migrate to this country:

Lesson Three: Population Pyramids

Key question: What is a population pyramid?

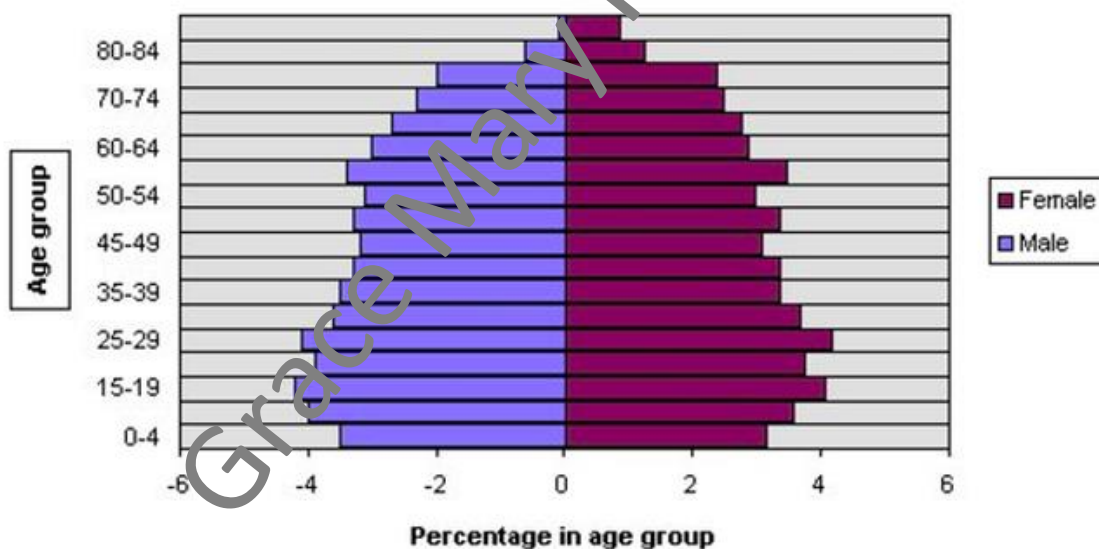
A population pyramid is a graph which shows the **age and gender structure** of a population.

It is very useful to help determine the age make up of a country.



Source: <https://www.jkgeography.com/population-pyramids.html>

The following population pyramid is for a **developing country** in Africa. The pyramid has a very wide base. This means that there is a high proportion of young people which suggests there is a high birth rate. The top is quite narrow which means there are fewer people in the older age groups.



Source: <https://www.jkgeography.com/population-pyramids.html>

The following population pyramid is for a developed country in Asia. This pyramid is a different shape. It does not look like a pyramid. The base is not as wide as the first pyramid. The middle and top are wider. This type of pyramid is more likely to occur in a **developed country** where birth and death rates have fallen.

1) Read the statements below about the population pyramids. Decide whether the statement is about population pyramid A, the developing country, or population pyramid B, the developed country.



Narrower at the base because the birth rate is low.	Quite wide at the top because there is a longer life expectancy.
9% of the population is female aged 0-4	Typical graph of a country like India or Kenya.
Typical graph of a country like Italy or America.	Always gets narrower as it gets taller because people don't live as long.

UK population pyramid

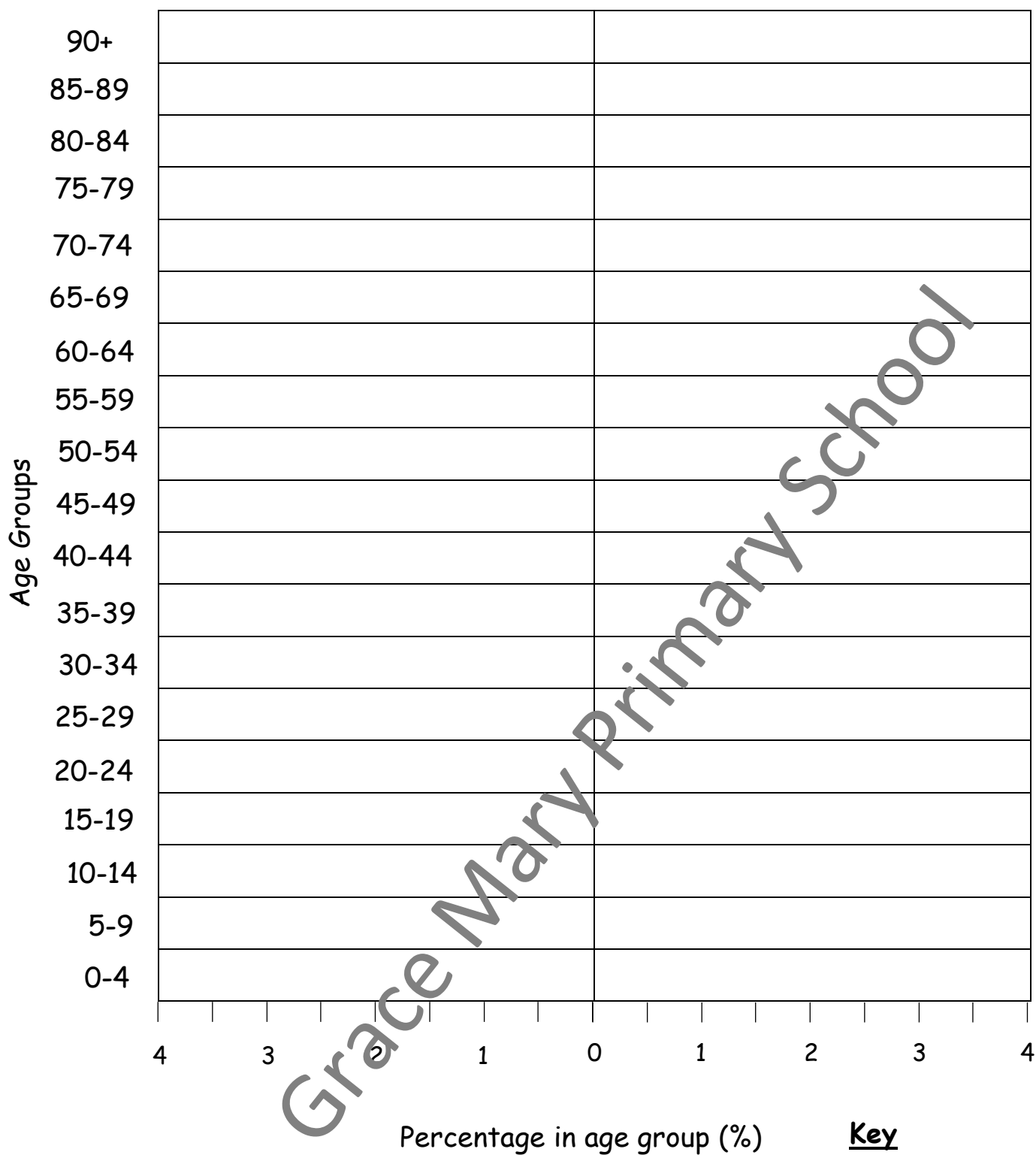
The United Kingdom has quite a narrow base but a large middle and top. This means we have an **ageing population**. We will explore the positives and negatives of an ageing population in lesson 5.

2) Use the data to complete a population pyramid for the UK on the next page.



Age	United Kingdom	
	MALES	FEMALES
90+	0.1	0.5
85-89	0.4	0.9
80-84	0.8	1.4
75-79	1.4	2
70-74	1.8	2.2
65-69	2.1	2.3
60-64	2.4	2.5
55-59	2.8	2.9
50-54	3.4	3.5
45-49	3.1	3.2
40-44	3.5	3.6
35-39	3.9	4
30-34	3.7	3.9
25-29	3.2	3.4
20-24	3	3
15-19	3.2	3
10-14	3.4	3.2
5-9	3.3	3.1
0-4	3	2.9

Population pyramid for the UK



3) Look at your population pyramid for the UK. Using just this pyramid, do you think the UK is a developing and developed country? Explain your answer:



Review

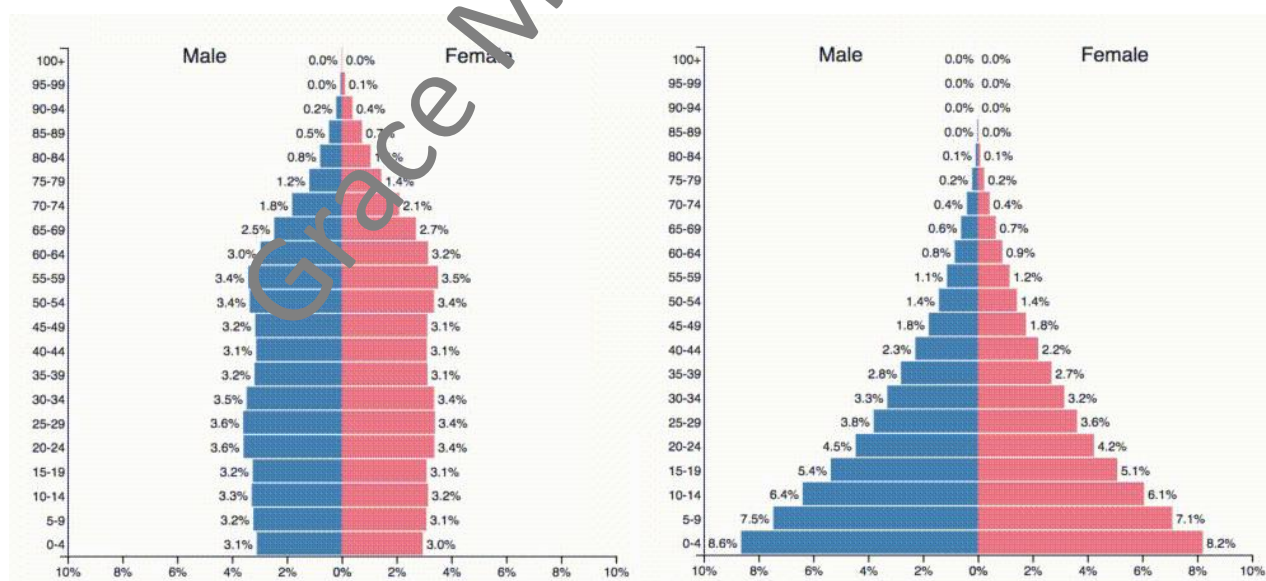
1) What does a population pyramid show? Tick one:

The amount of people in country

The population change in a country over time

The age and gender structure of a population

2a) Below shows two population pyramids. One is the USA, a developed country and the other is Nigeria, a developing country. Label which you think is which.



2b) Explain your choice for question 2a

3) Circle the best choice to describe the UK population:

A high proportion of young people

An ageing population

Lesson Four: Growing population

Key question: What challenges can a growing population present?

As you know, the population of the world is growing and is expected to continue to grow. This creates many challenges and problems which we will explore in this lesson:

Slums

Slums are developing rapidly around many cities in the world. A slum is a squalid and overcrowded urban street or district **inhabited** by very poor people. According to The United Nations, the definition of a slum dweller (a person living in a slum) is

someone who lacks at least three of the basic requirements including, "durable walls, a secure lease or title, adequate living space, and access to safe drinking water and toilets."

Slums in urban areas are usually created by the pressures of large-scale **migration** into cities from rural areas, driving up living costs and making city life unaffordable for many. Around 1 in 7 people on the planet live in a slum.

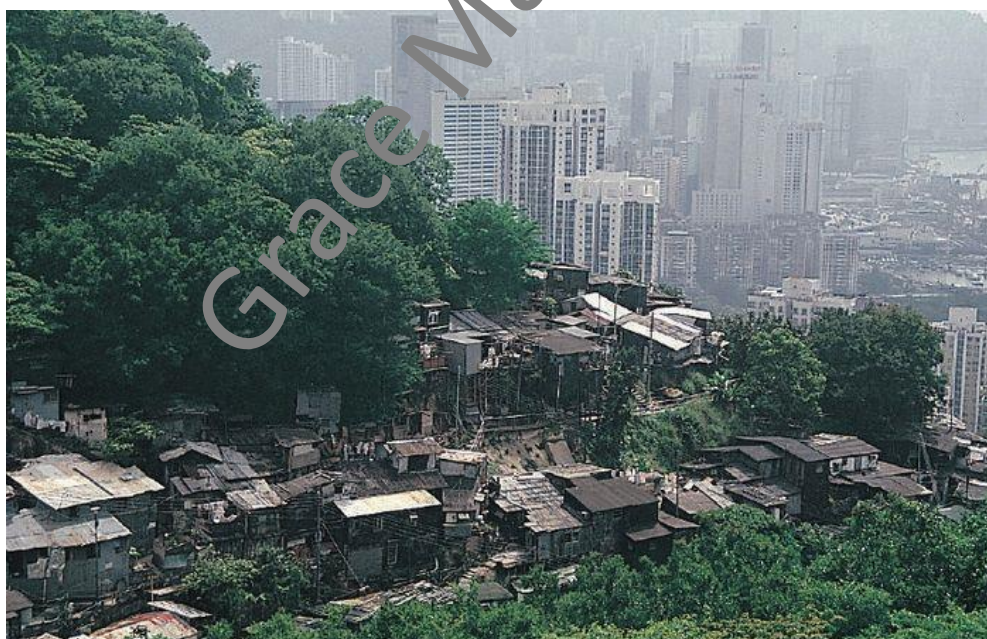
Brain Dump



1) In year 4, you learned about Brazil and why people are moving from rural areas into the city. Why do people do this?

The rural poor usually migrate into big cities in search of **labour** and better living facilities. It also enables people to **commute** into the city for work. Although to the slum

dwellers, their change in lifestyle may bring many advantages, they are usually not viewed positively by the public. Below shows a slum in Hong Kong.

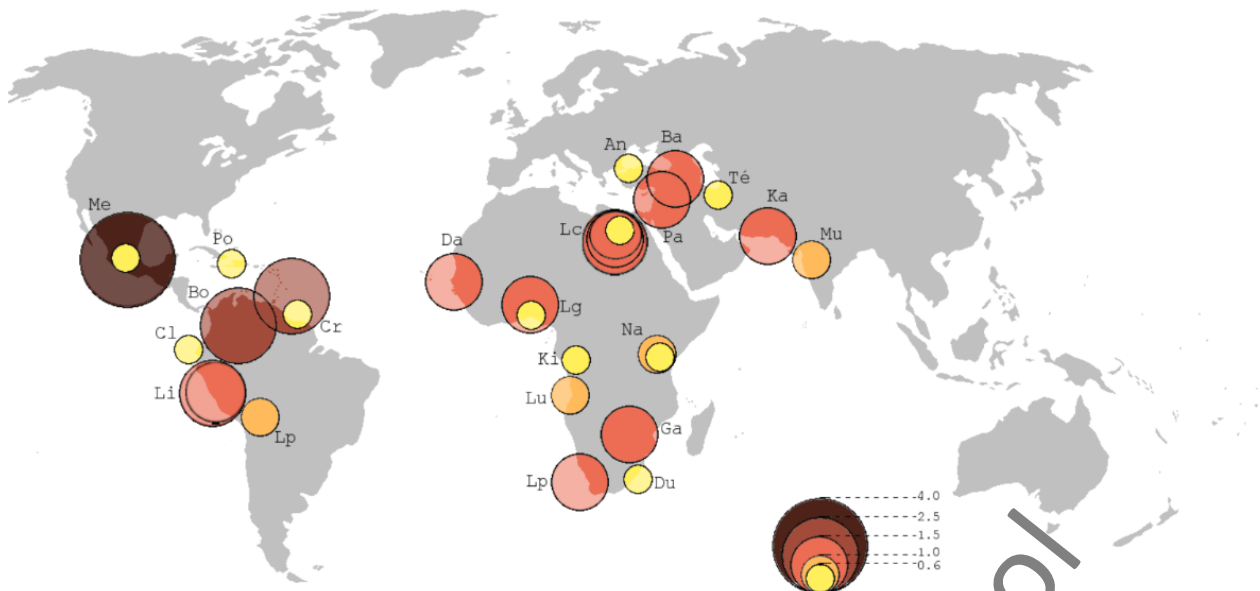


Source:

<https://www.skyscrapercity.com/threads/hk-slum-problem-before-the-handover.454363/>

2) Put a ring around the slum in the picture:





Source:

<https://www.slideshare.net/crooksAndrew/gis-and-agentbased-modeling-part-2>

The map above shows the position of the 30 largest slums in the world. The numbers by the circles indicate the number of millions of people who live in these slums.

3) Complete the sentence: 

The majority of the slums in the world are located in the continents of _____, _____ and _____.

There are many problems that are associated with slums. These include:

- Overcrowding
- The spread of infectious diseases
- Poor sanitation
- Lack of access to food and clean water
- Unstable homes

Around 1 in every 7 people around the world live in a slum. It is estimated that by 2030, 1 in every 4 people will live in a slum. While most slums are in developing countries, some are popping up in developed countries such as Spain.

Environment

Another issue we face with an increasing population is the impact it is having on the environment.

One of the largest environmental effects of human population growth is the problem of **global warming**.

Global Warming

Climate change (or **global warming**), is the process of our planet heating up.

The **Earth** has warmed by an average

of 1°C in the last century, and although that might not sound like much, it means big things for people and wildlife around the globe.

Unfortunately, rising temperatures doesn't just mean that we'll get nicer weather. The changing climate will actually make our weather more **extreme** and **unpredictable**.

As temperatures rise, some areas will get wetter and lots of animals (and humans!) could find they're not able to adapt to their changing climate.



Source: http://tiki.oneworld.org/global_warming/climate_home.html

Some scientists fear that global warming will lead to rising sea levels and extreme weather conditions in the future.

In order to support the growing population, forests are being destroyed at an alarming rate in

order to build new homes. As well as this, more people means more demand for oil, gas, coals and other fuels mined or drilled below the earth's surface, that when burned, spew enough carbon dioxide into the atmosphere to trap warm air inside

4) After studying the information, explain two reasons why a growing population is a concern for the world.



Grace Mary Primary School

Review

1) A slum is defined as...

a wealthy town, full of business opportunity. ☐

a squalid and overcrowded urban street or district inhabited by very poor people. ☐

a single house in the middle of the countryside. ☐

2) Circle the three continents where we find most slums:

Europe

North America

Africa

Asia

South America

3) State two reasons why people migrate into cities:

1)

2)

4) Briefly describe how an increase in population might increase global warming:

Lesson Five: Ageing population

Key question: What challenges can an ageing population present?

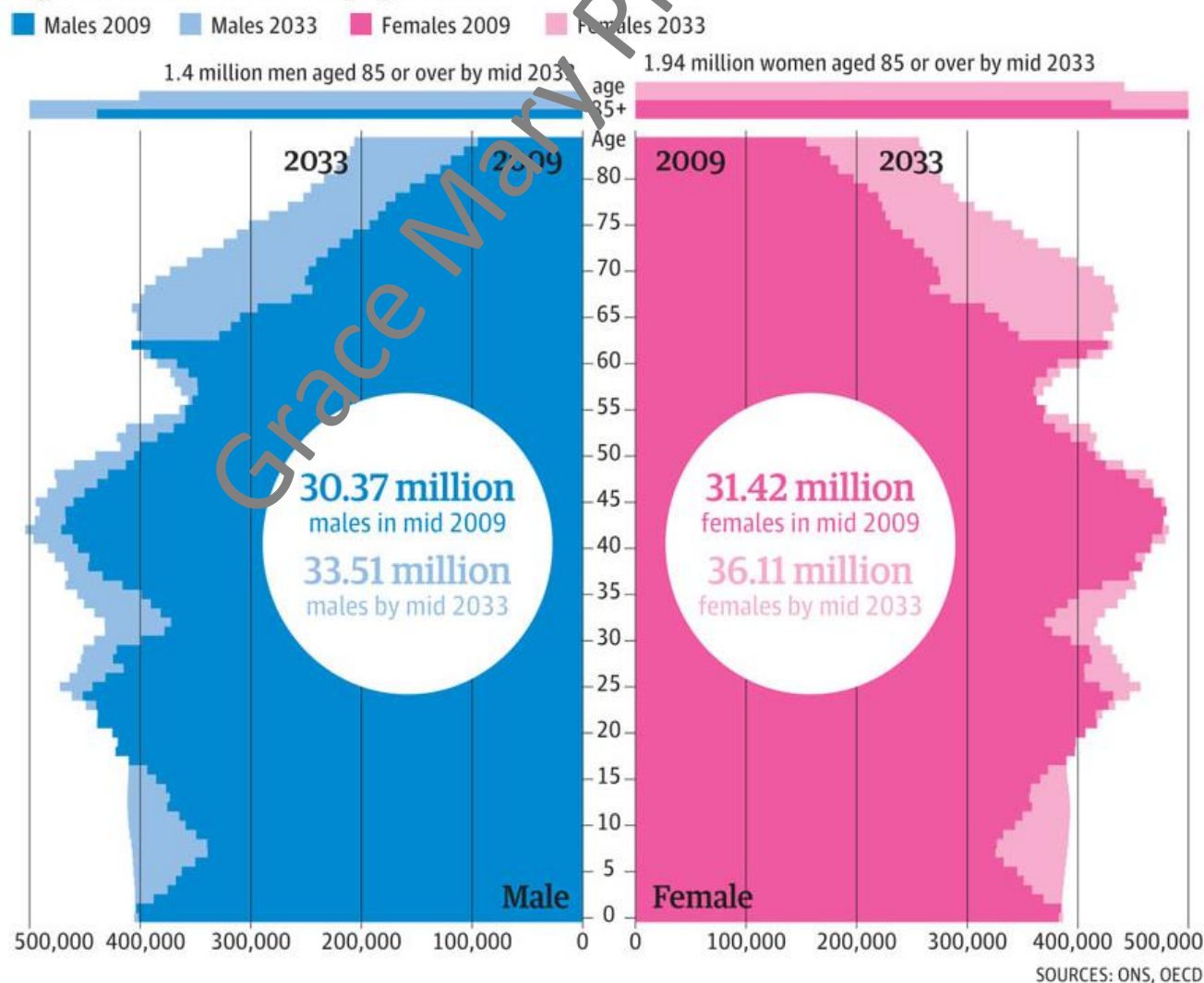
What is an ageing population?

An ageing population is defined as a population with a rising average age. The UK has an ageing population. Babies in the UK are living longer and therefore **life expectancy** is growing

The UK population is still growing but slowly. By 2021, it is estimated that 19% of the UK population will be pensioners. This is because of a baby boom after WW2.

Changing shape of the UK

Age structure of the UK population

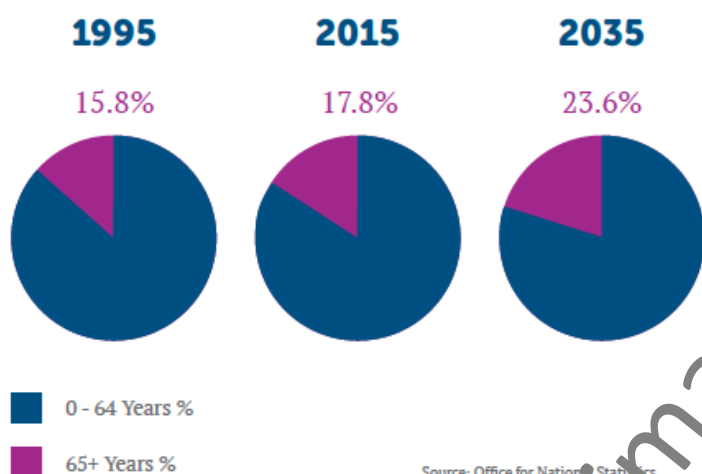


Source: <https://www.theguardian.com/news/datablog/2009/oct/21/uk-population-data-ons>

THE INCREASE IN THE UK'S POPULATION AGED 65+ FROM 1995 - 2035

Source:

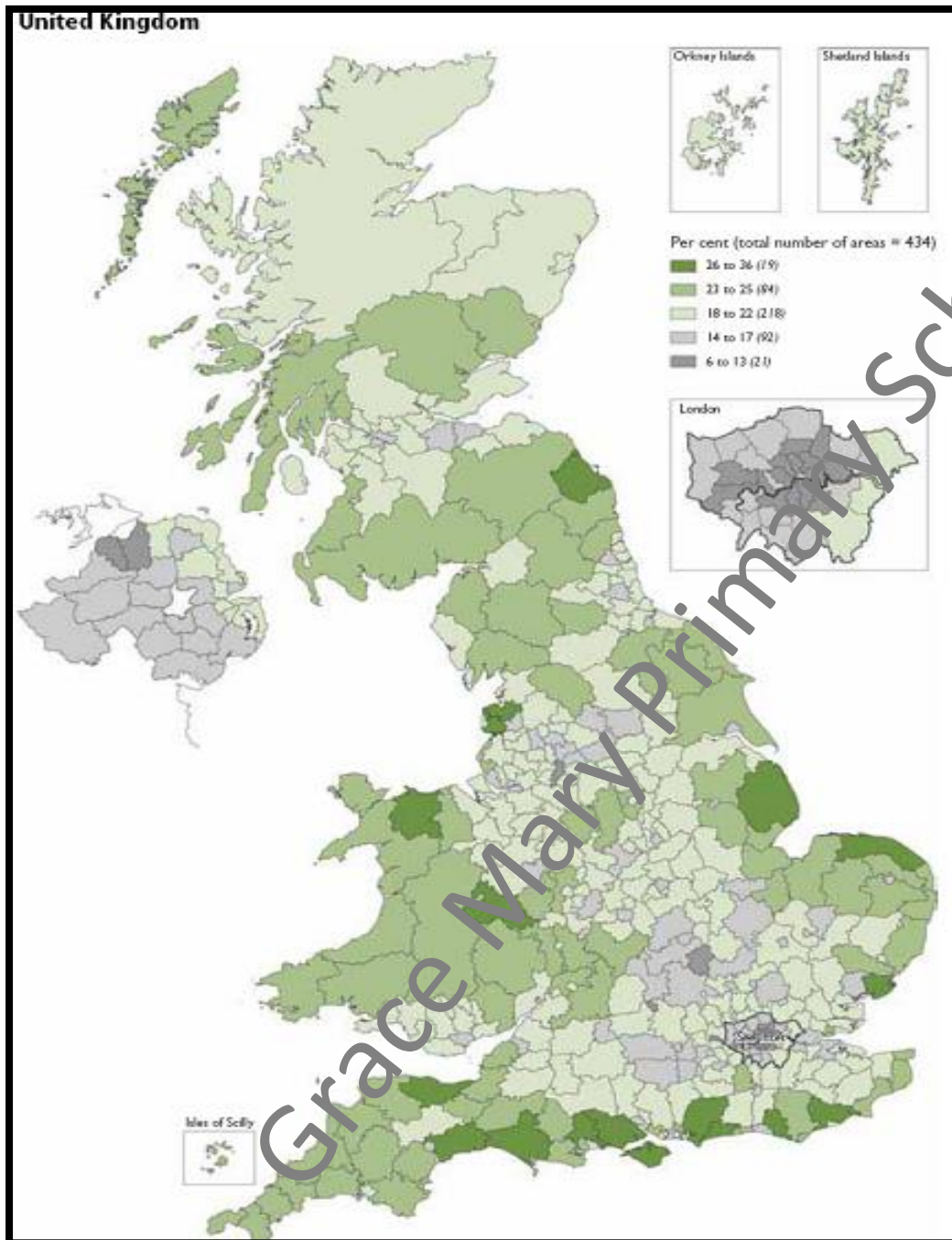
<https://www.onetouchinvestment.co.uk/news/care-home-investment/shortage-retirement-homes-creates-opportunities-growing-population-65/>



1) Summarise what the two charts tell you about the predicted future age structure of the UK.



Below shows a map of the % of people in the UK who are of **pensionable age**.



Source:

<http://news.bbc.co.uk/1/hi/uk/7773035.stm>

Blackpool has the oldest population of any UK city, with an average age of 43.2. It is followed by fellow coastal cities of Worthing (43), Bournemouth (42.8) and Southend (42.2)

These places have high percentage of people who are at retirement age.

More than one in five residents of each city was 65 and over in 2016 - some people believe living by the seaside is the main reason for this.

2a) Identify another area of the UK which has a high elderly population.

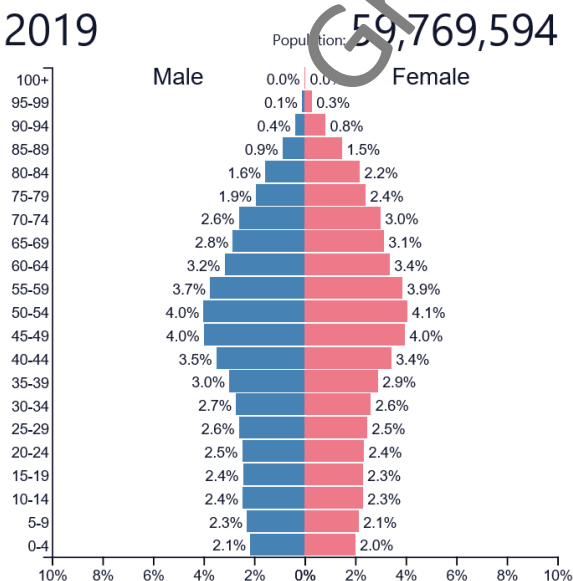


2b) Identify an area of the UK which has a low elderly population.

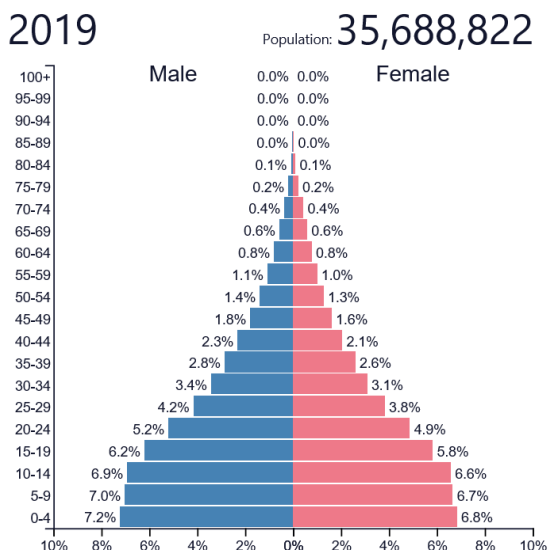
2c) Describe the population distribution of elderly people in the UK.

Ageing populations are becoming more common in developed countries. Look at the population pyramids below for a developed country and a developing country. Talk to your partner about how these pyramids support this claim.

Italy ▼
2019



Afghanistan ▼
2019



Source: <https://www.populationpyramid.net/world/2019/>

People are living longer because they have had more **wealth** than ever before, have had better, more varied and reliable diets, medical care has improved and medicines have become more advanced.

The consequences for an ageing population for a country can be positive and negative.

Positive	Negative
- Retired people have a wealth of life experience and are often very intelligent. It is important for them to pass on their knowledge to the next generation of people. - Many retired people do voluntary work in schools and for charities that is essential work but done for free. - Many retired grandparents are now fulfilling child care roles for their grandchildren as the cost of child care rises. This vital role unifies the extended family and allows parents to work and contribute to the economy.	- The increasing number of very old people has put a strain on healthcare services. Very old people have particular needs (e.g. decreasing mobility, loss of eye sight etc.) that mean they need other people to do things for them. - Health care is in ever increasing demand in the UK and it is proven that the elderly visit their doctor more often and have more home visits. They also occupy hospital beds for longer. The government of a country has to find money to pay for this care. - Less people of working age means a lower number of workers so less people to pay tax so the economy gets smaller.



Source: <https://www.kidoodle.tv/tips-to-help-teach-your-grandchild/>



Source: <http://www.healthcarebusinesstech.com/elderly-patient-outcomes/>

3) Complete the table below, identifying whether the statement about ageing population is a benefit or a problem to society:



A rising number of people in nursing homes increasing the need for more retirement homes.	Some businesses make more profit as elderly people spend more money on holidays and leisure.	Fewer people of working age so higher taxes to pay for old people's healthcare and pensions.
More childcare support from grandparents for people with families.	An increase in the cost of healthcare, as more elderly people require medical treatment.	An increase in the cost of pensions for the government.

Review

1) Delete the incorrect word/s in the following sentences:

England **does/does not** have an ageing population

In England, it is predicted over the next 20 years that there will be **more/less** old people than there are now.

One reason for this is that England is a **developed/developing** country.

People in this country are living longer because healthcare has **improved/worsened**.

2) Write two ideas in each column:

Benefits of an elderly population:	Problems with an elderly population:

Lesson six: Food

Key question: How do we feed the planet?

Vocabulary

Hunger-a feeling of discomfort or weakness caused by lack of food.

Malnutrition- experiencing a lack of quantity and variety of food over a long period of time.

Starvation-suffering an acute shortage of food.

Famine- an extreme shortage of food for a large number of people.

Why are people hungry?

Over the last 40 years, global food **supplies** have doubled, surpassing the rate of population growth. Yet there is a global food **crisis**. Why is this?

Although there is enough food produced in the world to feed everyone, it is distributed unequally. As a result, some people experience extreme hunger, and this has serious consequences for their lives. Nearly half of all deaths of children under 5

are linked to undernutrition, with around 3 million children dying from hunger and hunger related diseases each year.

Approximately 821 million people a night go to bed on an empty stomach. Malnutrition has serious implications as it hinders people's ability to work or attend school which further reduces their chances of earning a living to work their way out of **poverty**.

Causes of hunger:

Climate change

More droughts (caused by lack of rainfall) are making it difficult for farmers to grow crops. In some places flooding (caused by too much rainfall) has damaged crops and farmland. With climate change, droughts and flooding are happening more frequently, making it more difficult for farmers to harvest their crops.

Rising food prices

The price of food is rising but people are not earning more money. This means that people can't afford to buy as much food in the supermarket.

Poverty

Everybody needs to eat but for people who do not have much money it can be hard to find food which is affordable.

Loss of farmland

In some places, more powerful land owners or organisations have taken land from small scale farmers so they have no way of making a living to feed their family.

Conflict

War and conflict can damage crops and make it difficult to farm. Sometimes people are forced to move away from their land and so have no way of earning money or growing their own food.

1) Read the statements below by four people across the world, explaining why they are hungry. Decide what overarching issue is the cause of their hunger.



We had a small piece of land where we could grow rice to eat. But it was taken by a company growing fruit to sell abroad.

Cause:

Sometimes I only have enough money to buy food for the baby. I don't have enough for myself.

Cause:

It is becoming harder to harvest a decent crop because of the droughts each year. This means we don't make as much money selling our crops at market and our family has less to eat.

Cause:

I didn't have breakfast this morning. The shops are full of food, but I have no money to buy anything.

Cause:

Who produces our food?

2) Look at the photo on your table. Discuss with your table the answer to the following questions:



Where might this place be?

What is happening in the photograph?

Why do you think that?

The food that we eat is produced all around the world in different countries, by men, women and children. However, there are many challenges of food production:

- Lack of fertiliser
- Lack of money to invest
- Lack of sufficient land
- Climate change
- Rising population

3) Consider what you know about population growth in developing countries. Why might this cause further problems for global food production?



The challenge

A growing population means more mouths to feed. The expanding global population is getting wealthier, and richer people tend to eat more and demand food. It has been estimated that we need to produce more food in the next 35 years than we have ever produced in human history, given the projected increases in world population.

However, there is no new land for growing food, with increasing **urbanisation** (the world will be 70% urbanised by 2050), and sea level rises reducing land availability.

Some solutions

There are several solutions to solve the food shortage challenges that are occurring globally:

1) Produce higher **yields**. The average African farmer uses one tenth as much **fertilizer** as farmers in developed countries. She—most are female—applies little or no pesticide or fungicide to her crops, and her soil has been so **overtilled** that her annual yields are woefully puny.

2) Eat less meat. Scientists have recently stated that the meat industry is a big contributor to carbon emissions and that one way to reduce the impact meat has on the environment is to eat less of it. Many campaigners suggest we should adopt a flexitarian diet - a diet where meat is eaten once a week or less to have a significant impact on the environment.

3) Share the wealth. While 25,000 people are now dying daily of hunger, the United States throws away 96 billion pounds of food each year, or 320 pounds per person. Wealthy nations need to take steps to address poverty by contributing to **international aid**. This would support food production in developing countries.

4) Mahatma Gandhi once said, 'The world has enough for everyone's need, but not enough for everyone's greed'. Using evidence of what you have learned today and through the unit, explain what you think Gandhi meant by this quote.



Grace Mary Primary School

Essay writing

Essay title: 'Population is one of the biggest threats we face in the world today'. To what extent do you agree or disagree with this statement? You could talk about:

- What is meant by population.
- How world population has grown and is expected to grow.
- The impact of population growth on both developed and developing countries.
- The impact of an ageing population.
- The potential impact overpopulation might have on food.

Grace Mary Primary School