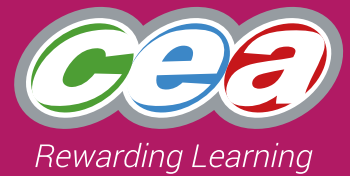


# ELQ Geography

Entry Level Geography

Unit 7: Population



## Unit 7: Population



### **Learning Outcome 1:**

Demonstrate understanding of global population growth.

### **Learning Outcome 2:**

Describe and explain the differences in the structure of the population in different countries.

### **Learning Outcome 3:**

Know how migration can have both positive and negative impacts.

## Guidance notes

This resource includes information and suggested tasks relating to Entry Level Geography. The resource focuses on:

### Unit 7: Population

- **Learning Outcome 1:**  
Demonstrate understanding of global population growth.
- **Learning Outcome 2:**  
Describe and explain the differences in the structure of the population in different countries.
- **Learning Outcome 3:**  
Know how migration can have both positive and negative impacts.

Demonstrate their understanding of global population growth.

There is no requirement to use this resource material. Teachers may choose to use this material or to amend it to suit the needs of their learners.

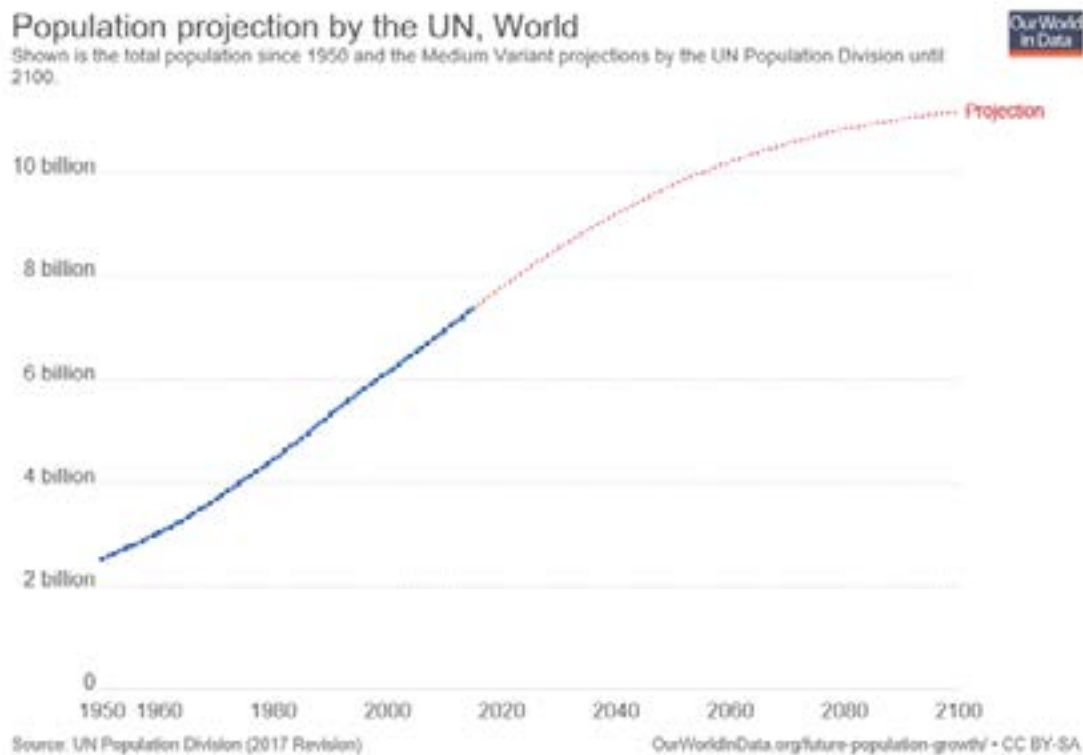
## Learning Outcome 1:

Demonstrate understanding of global population growth.

## Introduction

### Global population growth

The current global population (2018) is estimated at 7.6 billion. Global population continues to grow and is expected to reach 9.9 billion by 2050, see Fig 1. This is an increase of 2.3 billion or 29% in just 32 years.



**Fig 1: Projected World Population Growth (1950-2100)**

Source: <https://ourworldindata.org/future-population-growth>

**Natural population change** is the difference between the number of births and the number of deaths. For the population to increase births must exceed deaths.

The key components of natural population change are:

**Birth rate (BR):** this is the number of births per thousand people per year.

**Death rate (DR):** the number of deaths per thousand people per year.

Where the birth rate exceeds the death rate, natural population growth will occur. Where the death rate exceeds the birth rate there will be natural population decrease. Natural population change is usually shown as a percentage.

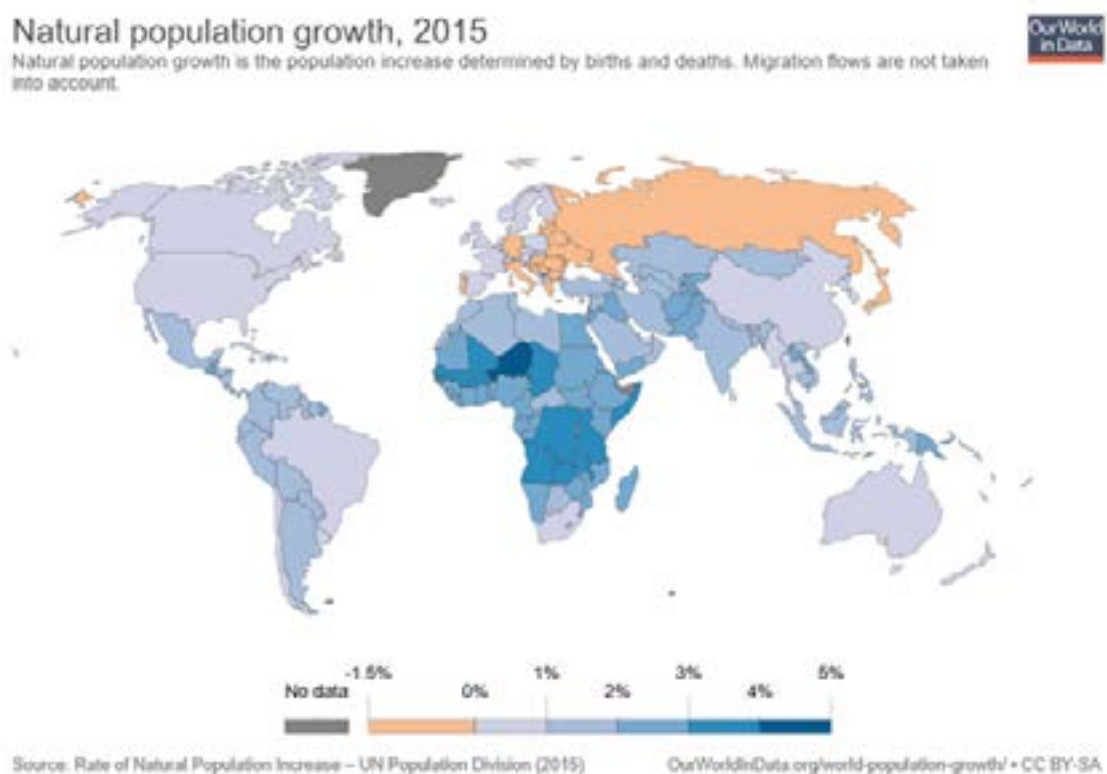
As Table 1 shows the population in Bangladesh is increasing (births exceed deaths) whereas, in Italy the population is decreasing (deaths exceed births).

**Table 1: Natural Population Change in Bangladesh and Italy**

Country	Birth Rate (per 1000)	Death Rate (per 1000)	Natural Population Change (%)
Bangladesh	18.8	5.4	1.34
Italy	8.6	10.4	-0.8

Source: <https://www.cia.gov/library/publications/the-world-factbook/>

Fig 2 shows natural population change in 2015.



**Fig 2: Natural Population Change (2015)**

Source: <https://ourworldindata.org/world-population-growth>

## Why is the population increasing in some countries and decreasing in others?

To understand why population is increasing in some countries and decreasing in others we need to look at the factors that influence birth rates and death rates.

### Factors that impact on birth rates:

In LEDC countries such as Bangladesh, women tend to have a large number of children. Large families are needed because children are expected to support the family by working from an early age. This is really important in rural area where children will look after animals from a very young age. Children are also expected to look after their elderly parents. There is no welfare state to provide benefits such as pensions.

In LEDC countries infant mortality rates tend to be high. The **infant mortality** rate is the number of children who die before their first birthday per 1000 live births. Large families are therefore common in the poorest countries of the world because large numbers of children die in infancy. Women often have large numbers of children in the hope that some will survive. Access to and the use of contraception also helps explain high birth rates. Some religions ban the use of contraception meaning that the birth rate is harder to control.

Improvements in health care will lead to a fall in the birth rate. Improvements might be improved access to doctors, hospitals, medicines and immunisation against disease. These improvements lead to falling infant mortality rates which in turn means that children are more likely to survive into old age.

Women in many MEDC countries such as Italy often delay getting married to establish a career. This means that they tend to have children later and as a result have fewer children. More education and improved access to family planning has also helped to reduce birth rates.

### Factors that impact on death rates:

High death rates can be found in LEDCs where there is poor health care, bad sanitation or food shortages. LEDCs do not have the money or expertise to improve the situation so that many people die from diseases or malnutrition.

Death rates will fall due to better access to and improvements in health care. A clean water supply, better sanitation and widespread immunisation programmes, means that threats from killer diseases such as smallpox can also be reduced.

Table 2 compares some population data for Bangladesh (LEDC) with population data for Italy (MEDC).

**Table 2: Population Data for Bangladesh and Italy**

Country/Data	Bangladesh (LEDC)	Italy (MEDC)
Birth Rate (per1000/year)	18.8	8.6
Death Rate (per 1000/year)	5.4	10.4
Infant Mortality Rate (per 1000 live births /year)	31.7	3.3
Contraceptive use (%)	62.3	65.1
Number of Doctors (per 1000 population)	0.47	4.0
Hospital Beds (per 1000 population)	0.8	3.4
Availability of safe drinking water (%)	86.9	100.0

Source: <https://www.cia.gov/library/publications/the-world-factbook/>

From the table above it can be seen that:

- Bangladesh has a high natural population change and an increasing population because the birth rate is much higher than the death rate. Italy has a higher death rate than birth rate which means it has a decreasing population.
- Bangladesh has a very high infant mortality rate. The infant mortality rate in Italy is much lower.
- Access to health resources in Bangladesh is much more limited than in Italy.

## Activity 1

Complete the following statements about natural population change by choosing the appropriate word from the word bank below. You may use the same word more than once.

<b>birth</b>	<b>death</b>	<b>mortality</b>	<b>MEDC</b>	<b>increase</b>
<b>high</b>	<b>low</b>	<b>LEDC</b>	<b>population</b>	<b>decrease</b>

Natural Population change is the difference between the number of births and deaths.

The \_\_\_\_\_ rate is the number of babies born per thousand of the population.

The \_\_\_\_\_ rate is the number of deaths per thousand of the population.

When the birth rate is higher than the death rate the population size will \_\_\_\_\_.

When the death rate is higher than the birth rate the population size will \_\_\_\_\_.

LEDCs generally have \_\_\_\_\_ natural population change because the \_\_\_\_\_ rate is lower than the \_\_\_\_\_ rate.



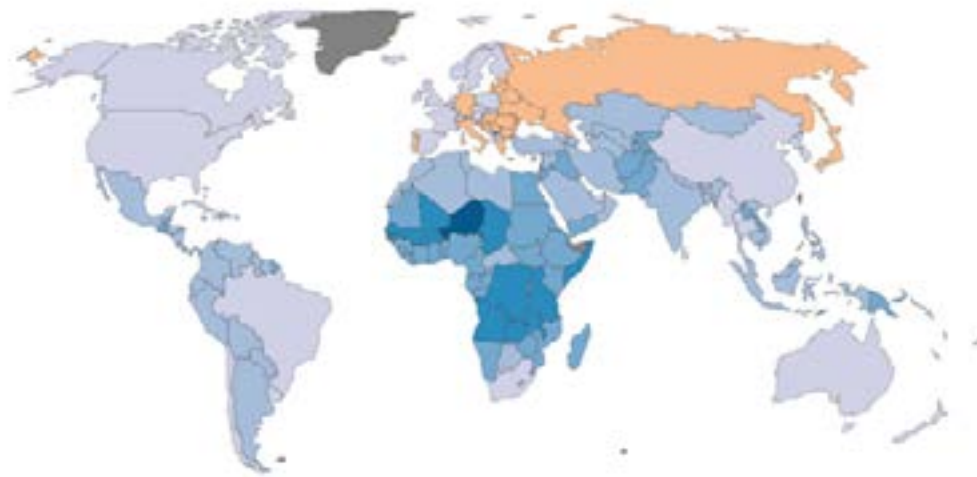
## Activity 2

Study Resource A which shows world natural population change. Choose two countries – one where the population is increasing and one where the population is decreasing.

### RESOURCE A

#### Natural population growth, 2015

Natural population growth is the population increase determined by births and deaths. Migration flows are not taken into account.



Source: Rate of Natural Population Increase – UN Population Division (2015)

OurWorldInData.org/world-population-growth/ • CC BY-SA

Name of a country where the population is **decreasing** \_\_\_\_\_

One reason why population is decreasing in this country is

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Another reason why the population of this country is decreasing is

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Name of a country where the population is **increasing** \_\_\_\_\_

One reason why population is increasing in this country is

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Another reason why the population of this country is increasing is

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## Population Pyramids

### Learning Outcome 2:

Describe and explain the differences in the structure of the population in different countries.

### Population Structure

Population structure refers to the 'make up' or composition of a population. When we look at the population structure of a place we are looking at how the population is divided up between males and females of different age groups.

#### POPULATION PYRAMIDS

Population structure can be shown by a population pyramid. Let's look at a typical population pyramid. Fig 3 shows a typical pyramid for a MEDC. You can see that:

- The population is divided into 5 year age groups.
- The population is divided into males (on the left) and females (on the right).
- The population of each age /sex group is shown in millions. Some population pyramids show the percentage of the population in each age-sex group

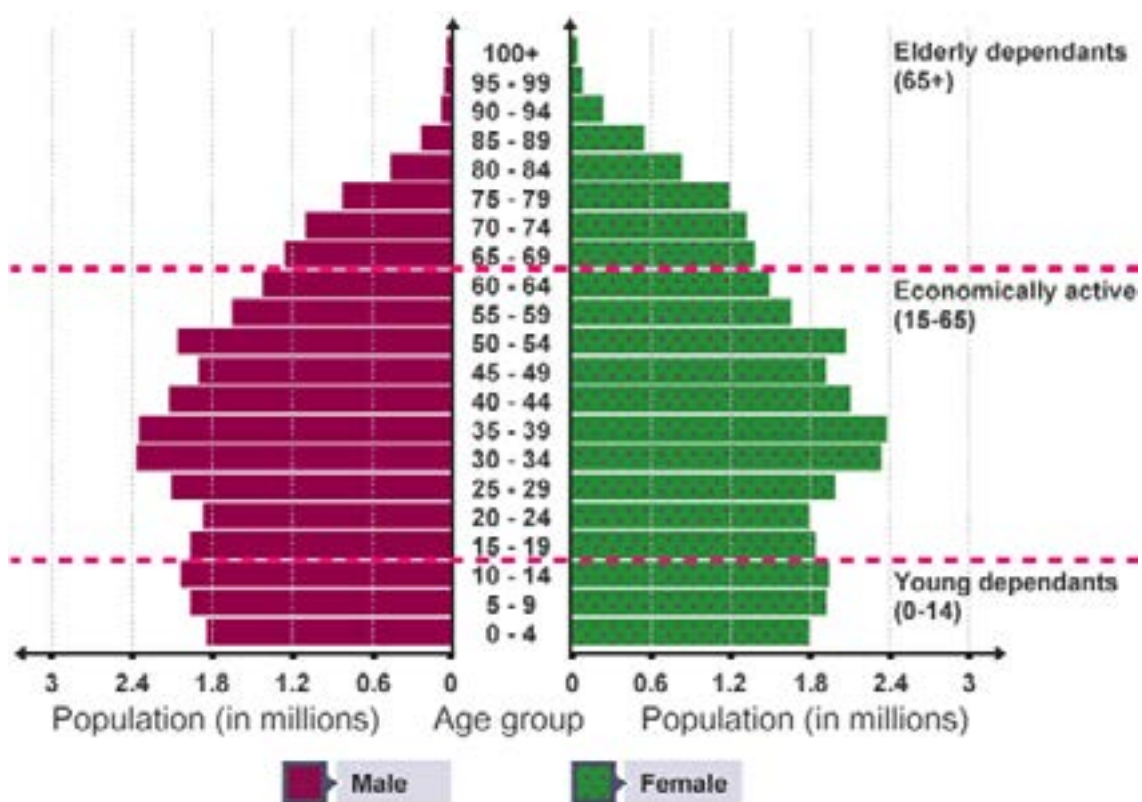
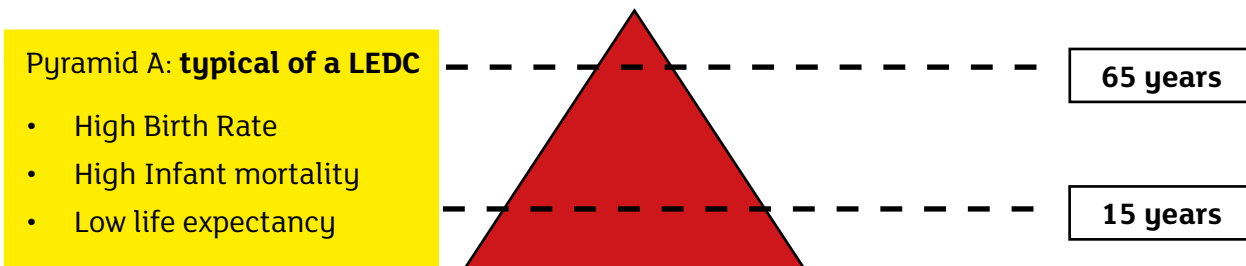


Fig 3: A Typical Population Pyramid for a MEDC

Source: <https://www.bbc.com/bitesize/guides/ztr2w6f/revision/1>

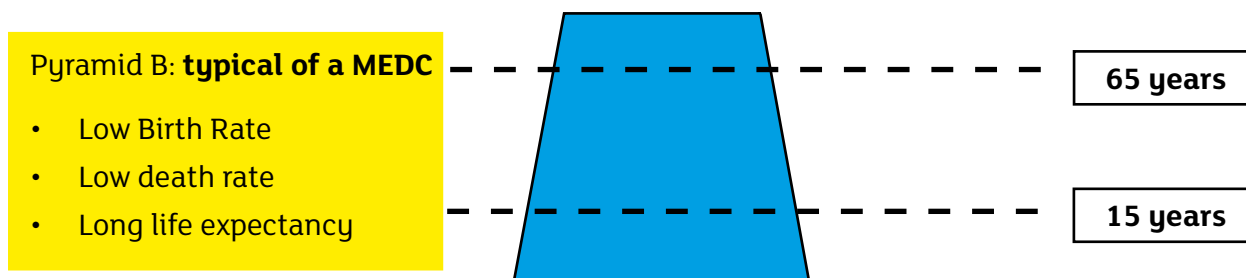
Population pyramids can be very useful for comparing the composition of the populations of different countries.

**LEDCs** have a triangular shaped pyramid. They have lots of children (high birth rate), a high proportion of them die in infancy (high infant mortality) and people do not tend to live for a long time (low life expectancy). These populations grow rapidly as many more children are added to the population than people die. Most of the population are in the younger age groups. The broad base of the pyramid indicates a high birth rate. The pyramid narrows as the high death rate reduces numbers.



**Fig 4: An Outline Population Pyramid for a LEDC**

The population pyramid for **MEDCs** is more rectangular in shape. They have fewer children (a low birth rate), a lower death rate and people tend to live longer (a longer life expectancy). In these countries the population grows only very slowly, remains static or in some cases such as Italy for example, the population is decreasing. Most of the population are in the middle – old age groups. The narrower base of the pyramid indicates a low birth rate and the broad shape in the middle indicates lower death rates. The broader top part of this shape indicates a larger number of people in the old age group.

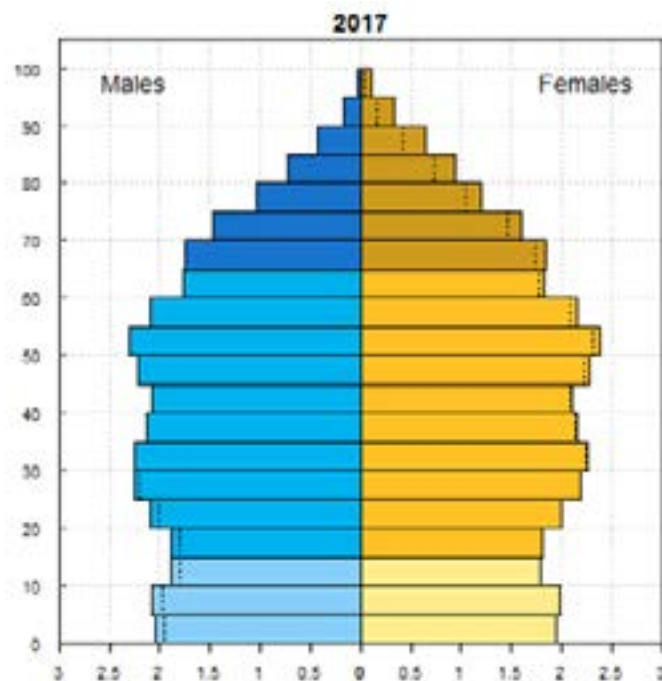
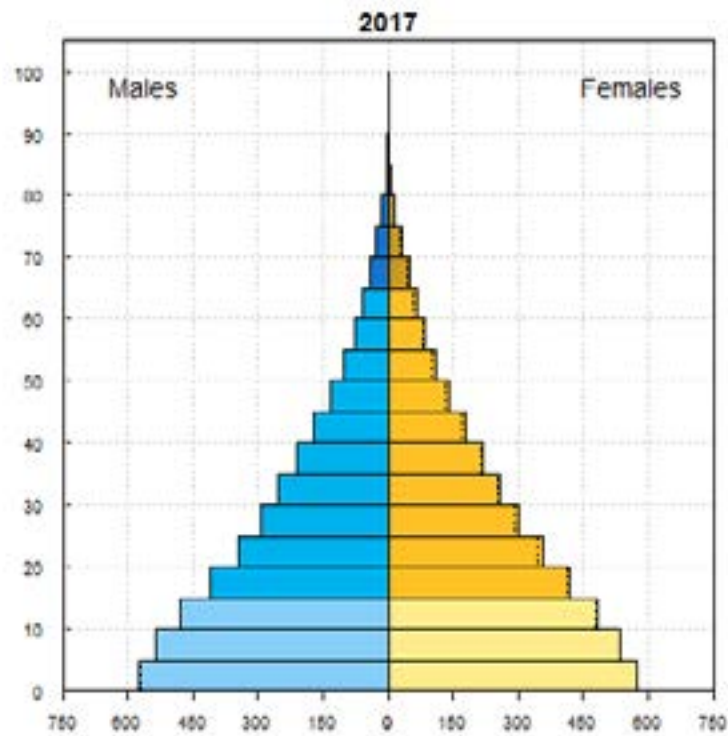


**Fig 5: An Outline Population Pyramid for a MEDC**

## Activity 3

Study **Resource B** which shows population pyramids for two countries in 2017.

### Resource B



Source: <https://population.un.org/wpp/Graphs/DemographicProfiles/>

**Note:** the dotted line indicates the excess male or female population in certain age groups. The figures are in millions and represent the population in each age group.

Complete the following table by placing a tick to show if each statement is true or false.

### PYRAMID 1: Sierra Leone

✓ The correct column to indicate if each statement is *true* or *false*.

Statements	True	False
The largest group is 0 – 4 years		
The smallest group is 85+ years		
Birth rates are low		
Infant mortality is low		
Many people can expect to live beyond 70 years old		
Many children die at an early age		
The overall shape is typical of an LEDC country		

### PYRAMID 2: UK

✓ The correct column to indicate if the statements are *true* or *false*.

Statements	True	False
There are large numbers of elderly people		
Many people die at an early age		
Birth rates are low		
The pyramid has straight sides		
Life expectancy is short		
The smallest age group is 95+		
The overall shape is typical of an MEDC country		

Complete the following information about the population pyramids for Sierra Leone and United Kingdom. Use the words provided in the box below to help you.

<b>longer</b>	<b>birth</b>	<b>rectangular</b>	<b>pyramid</b>
<b>birth</b>	<b>high</b>	<b>MEDC</b>	<b>LEDC</b>
<b>narrow</b>	<b>wider</b>	<b>narrower</b>	<b>wider</b>
<b>triangle</b>	<b>rectangle</b>	<b>low</b>	<b>old</b>

**Pyramid 1** has the typical shape of a \_\_\_\_\_ country. It has a very \_\_\_\_\_ base. This shows that the \_\_\_\_\_ rate is high as many children are being born. The population pyramid narrows as the number of people in each age group becomes smaller. This is because the \_\_\_\_\_ rate is \_\_\_\_\_. The pyramid is narrower at the top as life expectancy is \_\_\_\_\_ and fewer people manage to reach over 70 years of age. The overall shape is \_\_\_\_\_.

**Pyramid 2** has the typical shape of a \_\_\_\_\_ country. It has a \_\_\_\_\_ base. This shows that the \_\_\_\_\_ rate is \_\_\_\_\_ as people are having fewer children. The sides of the population pyramid are fairly straight as most children survive into \_\_\_\_\_ age. The pyramid is \_\_\_\_\_ at 70+ years than Pyramid 1. This shows that life expectancy is \_\_\_\_\_ as people live longer. The overall shape is \_\_\_\_\_.

## Population Migration

### Learning Outcome 3:

Know how migration can have both positive and negative impacts.

Migration is the movement of people from one place to another across a boundary for at least one year.

This movement may occur at different scales:

- Globally - moving over long distances from one continent to another, for example from Europe to North America.
- Internationally – from one country to another, for example, from Syria to Greece.
- Regionally - from one area within a country to a different area within the same country, for example from County Fermanagh to County Down in Northern Ireland.

People who migrate are called migrants. They may move either as individuals, family units or in large groups.

### REASONS FOR MIGRATION

The decision to migrate is complex. There will be factors that encourage a person to leave. An example is not being able to find any work. This is referred to as a push factor.

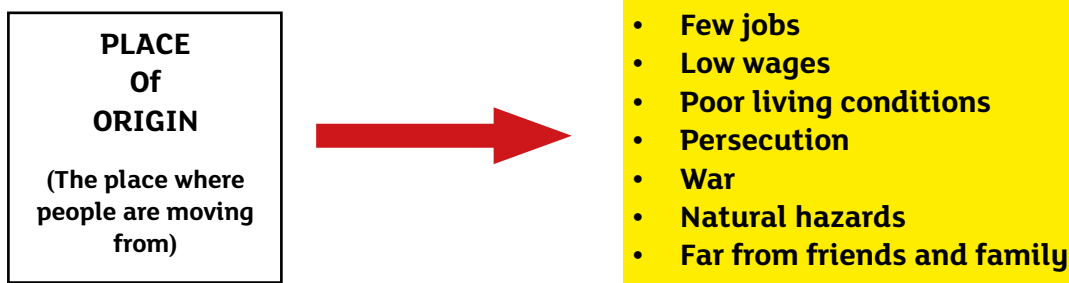


Fig 6: Push Factors

There will be factors that attract the person to move to a new place. An example is better living conditions. This is referred to as a pull factor.

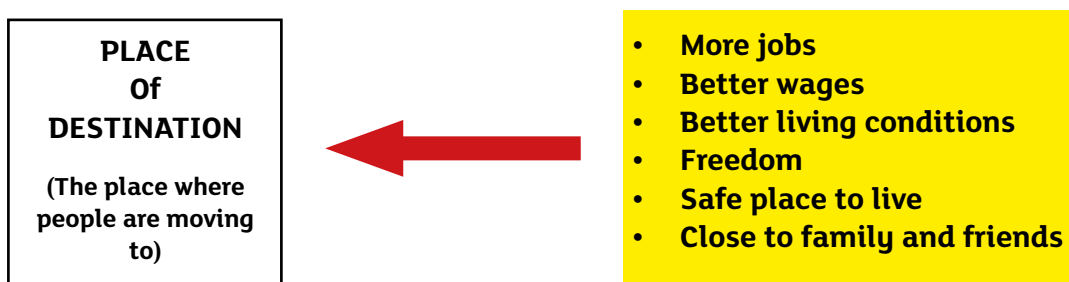


Fig 7: Pull Factors



## Barriers to Migration

Barriers to migration slow or stop the movement of people from one place to another. They may include:

### 1. Physical Barriers

Physical barriers include mountains and vast areas that are too cold or too hot such as deserts which discourage the movement of people. For example, the hot Arizona desert discourages Mexicans from migrating to the USA.

(a)



(b)



**Fig 8: Physical Barriers to Migration – Mountains, Oceans and Deserts**

### 2. Economic Barriers

Economic barriers to migration include poverty and the high cost of migrating. For example, some people cannot afford to migrate and have no choice but to stay in their own country.



**Fig 9: Poverty as a barrier to migration**



## Impacts on Migration

When large numbers of people move to settle in a different country they can bring benefits and negative impacts to their new country (the destination country).

There are also negative and positive impacts on the country which the migrants leave (the country of origin).

Table 3 below shows some of the impacts that migration has on the economy (employment, taxes, benefits) and services (health, education, social services) of both countries.

**Table 3: The Impacts of Migration**

	Positives	Negatives
<b>Country of origin – (the country the migrants move from)</b>	<p>Fewer people means there will be less pressure on the country's resources such as food, water, housing and health care.</p> <p>Migrants often send money back to their friends and relations who have stayed in the home country.</p>	<p>It is the most skilled and educated young people who migrate. This is known as a 'Brain Drain' which is a loss to the economy.</p> <p>Fewer people working means there will be less money raised from taxes. This means less money available for services such as health and education.</p> <p>Men may be more likely to migrate than women. This means there will be more females than males left behind.</p>
<b>Destination country (the country the migrants move to)</b>	<p>Migrants do jobs that people in the destination country may not want to do.</p> <p>The migrants will pay tax so this means more money for the government to spend on services such as health and education.</p> <p>Migrants may work in sectors where it is difficult to recruit enough workers. In the UK many migrants work in the Agri-food industry and in the the National Health Service as nurses and doctors.</p>	<p>Large numbers of migrants put pressure on public services, such as schools and hospitals, and there is also more demand for housing.</p> <p>Language and cultural barriers can exist.</p> <p>Conflict and racism can develop between the locals and the migrants.</p> <p>Locals can miss out on job opportunities because of increased competition from migrants.</p>

## Case Study: Impacts Of Migration From Mexico to United States of America

The social and economic impacts of international migration on the destination country and country of origin can be clearly seen in Mexico (country of origin) and the USA (destination country).

Background:

- There is a 3000 km border between USA and Mexico.
- More than one million Mexicans migrate to USA each year.
- Illegal migration is a major problem.

The push factors that encourage Mexicans to leave Mexico include:

- Low quality of life
- Poor wages
- Unemployment
- Malnutrition
- Lack of water supplies

The pull factors that attract Mexicans to move to USA include:

- Job opportunities – seasonal workers are needed on farms and in food processing factories
- Wages are higher in the USA than in Mexico
- Education is free for the children of legal migrants
- There is a higher quality of life in the USA compared to Mexico

Impacts	Mexico (country of origin)	USA (destination country)
Economic (money)	<p><i>Positive:</i></p> <p>Migrants send money home to their family in Mexico. This increases the spending power of Mexicans and improves the Mexican economy.</p> <p><i>Negative:</i></p> <p>Mexican migrants are more likely to be of working age which leads to shortage in the numbers in the work force in Mexico.</p>	<p><i>Positive:</i></p> <p>Mexican migrants help the US economy by working for low wages.</p> <p><i>Negative:</i></p> <p>Mexican migrants unable to find work may claim benefits which are a drain on US resources.</p>

<p><b>Services</b> <b>(health, education, roads, etc)</b></p>	<p><i>Positive:</i></p> <p>A smaller population reduces pressure on housing, health, education and social services.</p> <p><i>Negative:</i></p> <p>As young people migrate families and communities are broken up.</p>	<p><i>Positive:</i></p> <p>Mexican culture has enriched US border states by introducing new food, music and language.</p> <p>Mexican migrants are willing to take on work no-one else wants to do; for example, in low paid unskilled service jobs such as litter collection or factory work.</p> <p><i>Negative:</i></p> <p>Health and education services are under pressure because of the large numbers of migrants.</p>
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## Activity 4

Study **Resource C** which shows a list of factors relating to migration. Sort the factors into push and pull factors.

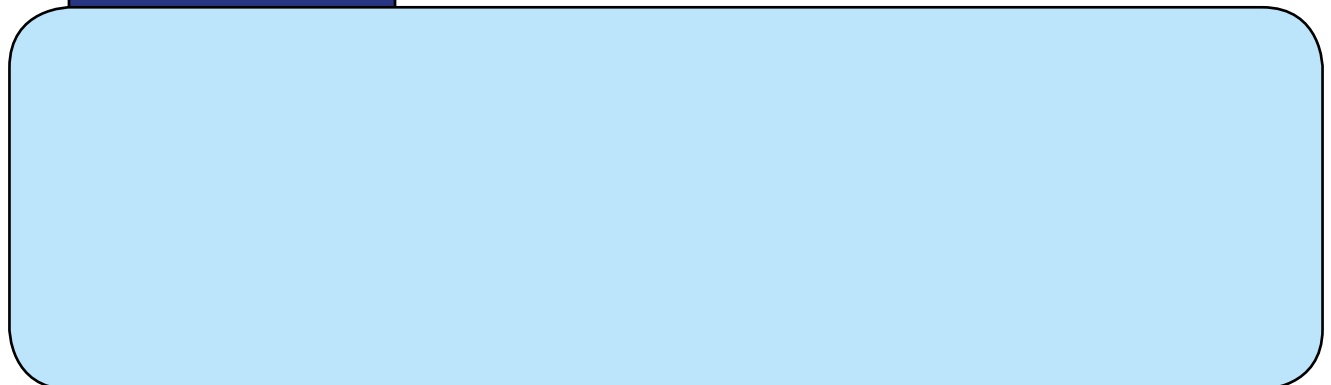
### Resource C

- |                           |                               |                           |
|---------------------------|-------------------------------|---------------------------|
| 1. poor transport links   | 2. political freedom          | 3. war                    |
| 4. many job opportunities | 5. famine                     | 6. no jobs                |
| 7. poor schools           | 8. many leisure facilities    | 9. good transport links   |
| 10. no leisure facilities | 11. close to family           | 12. attractive climate    |
| 13. too much crime        | 14. natural disaster          | 15. poor housing          |
| 16. good schools          | 17. arguments with neighbours | 18. religious persecution |
| 19. better way of life    | 20. good farming land         |                           |

### Push Factors



### Pull Factors



Study **Resource D** which is one migrant's story.

## Resource D

Three years ago my family and I moved to Northern Ireland from Vilnius, the capital of Lithuania, in Eastern Europe. I worked as a mechanic, but the wages were very low and my wife was unemployed. There were few opportunities for well-paid work.

We now live with our two children in Portadown, County Armagh, where I have a well-paid job, with good prospects, in a large, successful factory called Almac. We have a comfortable home. Our children attend an excellent, local primary school and can now speak English. My wife works in Asda. We are able to send money back to our parents in Lithuania every month. We are very happy here



Identify **two** push factors and **two** pull factors and explain how these factors have influenced Lucas' decision to leave his country of birth and migrate to Northern Ireland

**Push Factor 1:**

**Push Factor 2:**

**Pull Factor 1:**

**Pull Factor 2:**

Identify and explain **two** possible barriers Lucas may have faced which may have discouraged him from migrating.

**Possible barrier 1:**

**Possible barrier 2:**

Describe **one** positive and **one** negative impact Lucas and his family may have on Northern Ireland's economy.

**Economy**

**Impact 1:**

**Impact 2:**

Describe **one** positive and **one** negative impact Lucas and his family may have on Northern Ireland's services.

**Services**

**Impact 1:**

**Impact 2:**

## Resources

The list of resources is neither prescriptive nor exhaustive.

Geography Pathways, (KS3 for N.I.) Year 9 Pupil's Book Ch. 4 ISBN 978-0-340-90011-6

New Key Geography – Connections Ch. 5 ISBN 978-0-7487-9702-8

### Useful websites on Population:

Site containing brief animations on population growth:

[http://www.ined.fr/en/everything\\_about\\_population/videos/population-growth-today/](http://www.ined.fr/en/everything_about_population/videos/population-growth-today/)

Online resources on population topics:

[www.populationmatters.org/resources/materials-schools/](http://www.populationmatters.org/resources/materials-schools/)

<http://worldbirthsanddeaths.com/>

<https://www.prb.org/2018-world-population-data-sheet-with-focus-on-changing-age-structures/>

<http://data.worldbank.org/indicator/SP.POP.GROW>

<http://www.ninis2.nisra.gov.uk/public/Theme.aspx?themeNumber=74&themeName=Population>

<https://prezi.com/8p9ql3w77xlr/how-and-why-population-pyramids-of-an-ledc-and-an-medc-are-different-and-how-they-change-over-time/>

[www.coolgeography.co.uk](http://www.coolgeography.co.uk)

Site includes World Population Clock:

<http://www.worldometers.info/world-population/>

Population pyramids for most countries in the world:

<http://populationpyramid.net>

<https://population.un.org/wpp/Graphs/DemographicProfiles/>

### YouTube video:

<https://www.youtube.com/watch?v=FTLbb0Z5INg>

