# UNIT 1

# The population of the UK – an overview

## Resources and answers to activities

# Figure 1



## *Population sizes of different regions in England and Wales, 1981 and 2011*

| Region | 1981 (millions) | 2011 (millions) | Difference (millions) | Percentage change |
|---|---|---|---|---|
| Northeast | 2.6 | 2.6 | | |
| Northwest | 6.8 | 7.1 | | |
| Yorkshire and the Humber | 4.8 | 5.3 | | |
| East Midlands | 3.8 | 4.5 | | |
| West Midlands | 5.1 | 5.6 | | |
| East of England | 4.8 | 5.8 | | |
| London | 6.6 | 8.2 | | |
| Southeast | 7.0 | 8.6 | | |
| Southwest | 4.3 | 5.3 | | |
| Wales | 2.7 | 3.1 | | |
| **Total** | | | | |

*Source:* www.ons.gov.uk

# Activity 1



## a *Population sizes of different regions in England and Wales, 1981 and 2011*

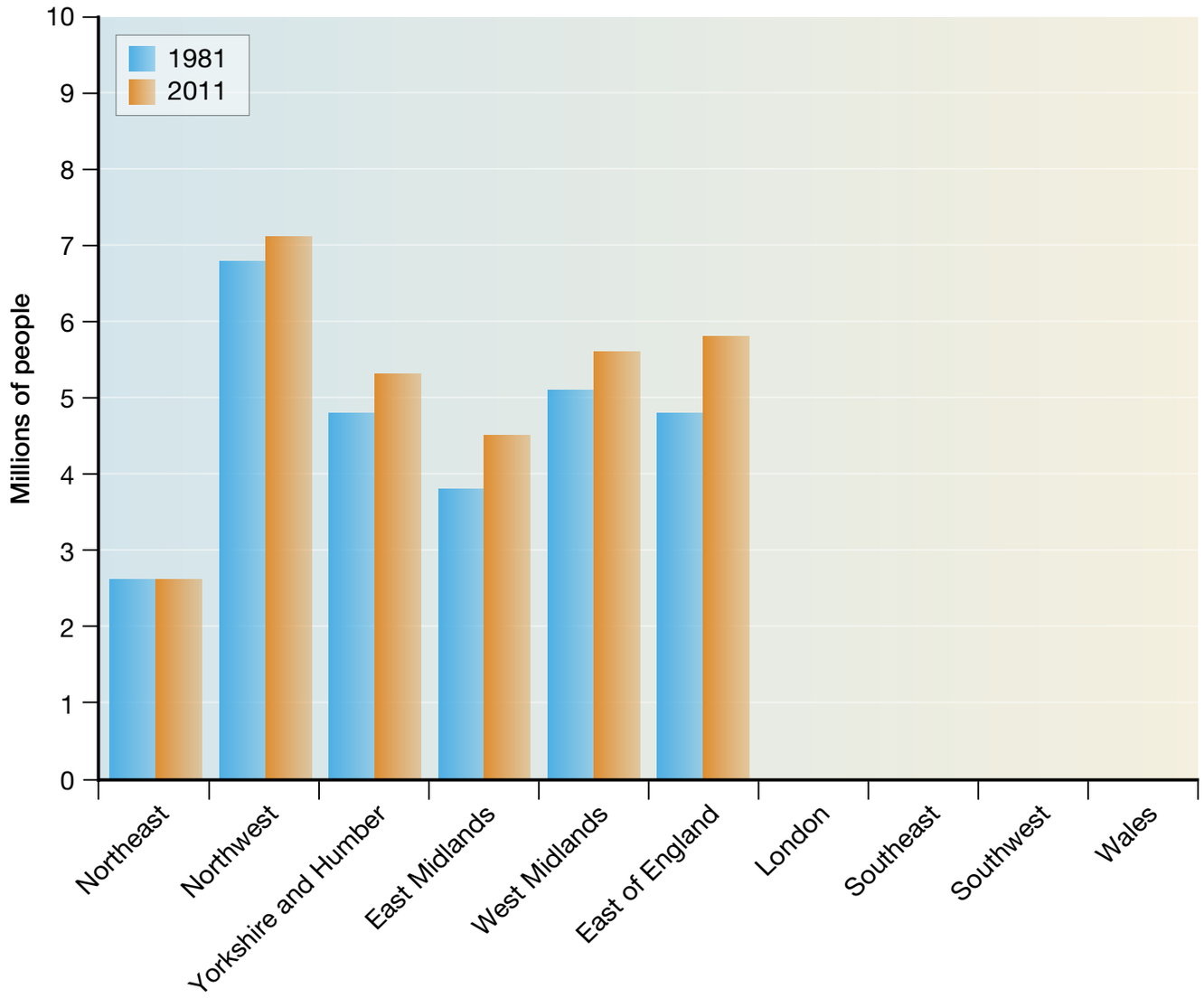
| Region | 1981 (millions) | 2011 (millions) | Difference (millions) | Percentage change |
|---|---|---|---|---|
| Northeast | 2.6 | 2.6 | **0** | **0** |
| Northwest | 6.8 | 7.1 | **0.3** | **4.4** |
| Yorkshire and the Humber | 4.8 | 5.3 | **0.5** | **10.4** |
| East Midlands | 3.8 | 4.5 | **0.7** | **18.4** |
| West Midlands | 5.1 | 5.6 | **0.5** | **9.8** |
| East of England | 4.8 | 5.8 | **1.0** | **20.8** |
| London | 6.6 | 8.2 | **1.6** | **24.2** |
| Southeast | 7.0 | 8.6 | **1.6** | **22.9** |
| Southwest | 4.3 | 5.3 | **1.0** | **23.3** |
| Wales | 2.7 | 3.1 | **0.4** | **14.8** |
| **Total** | **48.5** | **56.1** | **7.6** | **15.7** |

*Source:* www.ons.gov.uk

# Figure 2



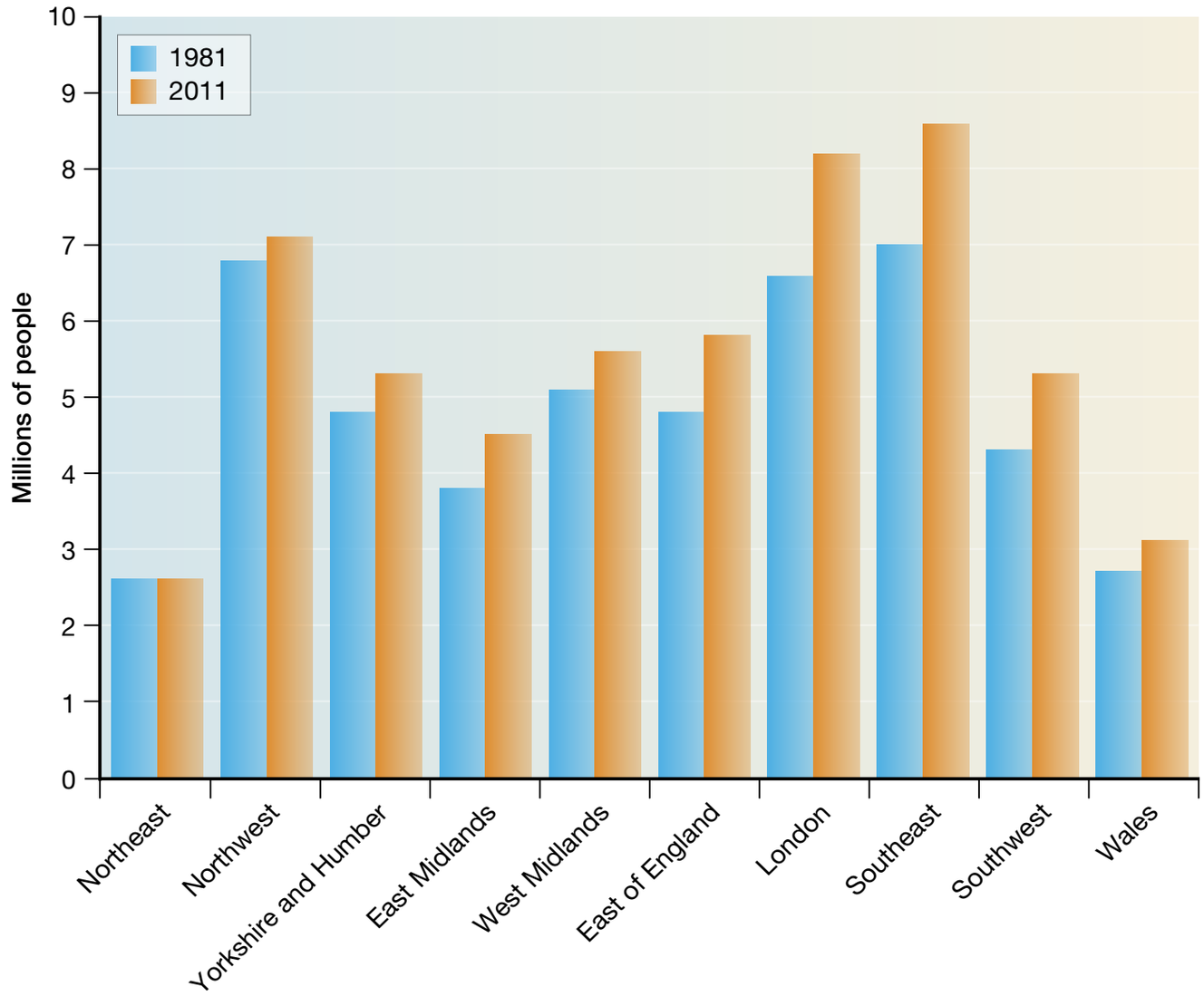
## *A bar chart showing population sizes of different regions in England and Wales, 1981 and 2011*



# Activity 1
CONTINUED



## b *A bar chart showing population sizes of the different regions in England and Wales, 1981 and 2011*



# Activity 1
CONTINUED



**c**

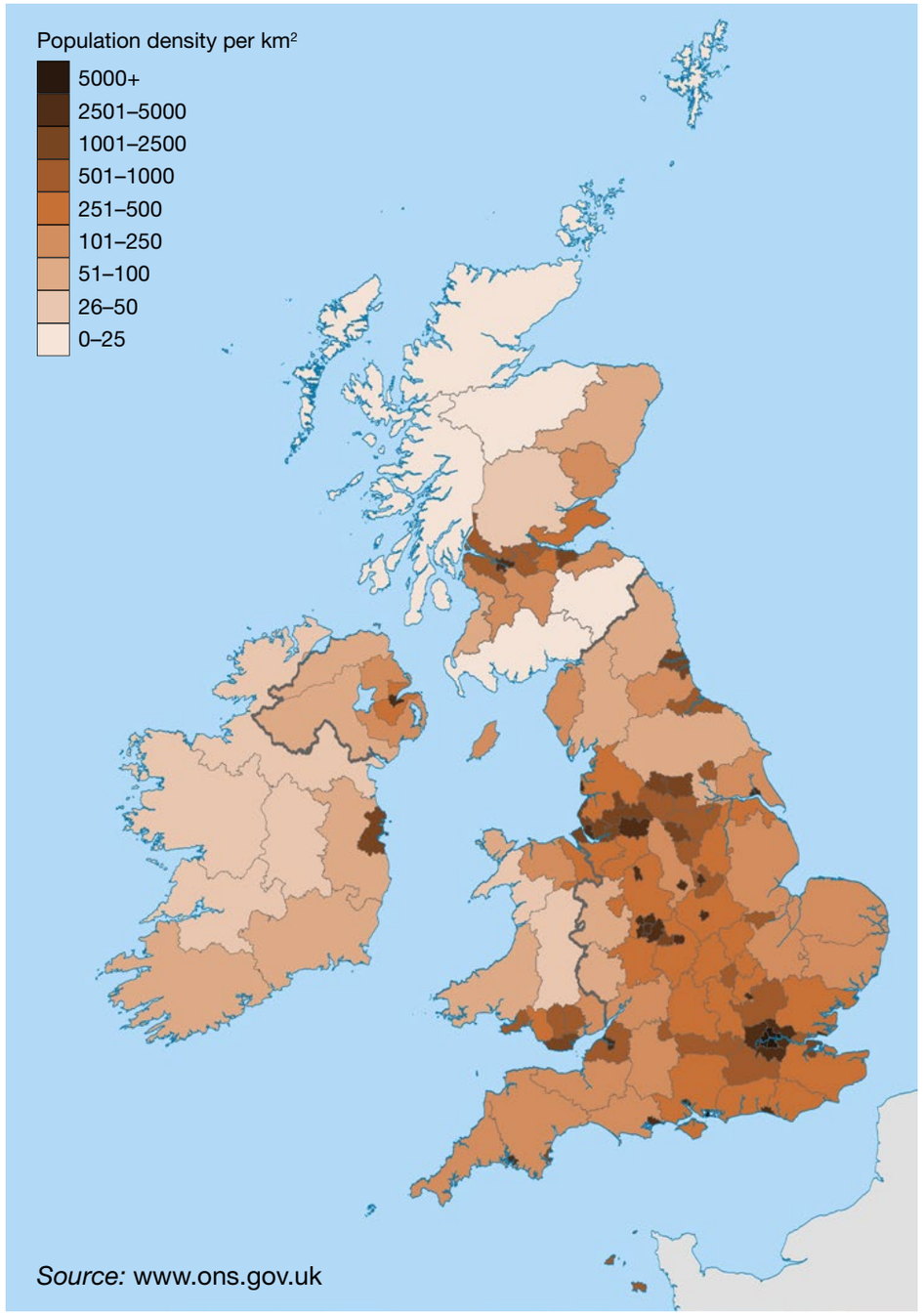
- There has been an increase in the population since 1981 across all but one area.
- The South has generally seen greater percentage increases – all above 10% – whereas northern regions have been below 10%.
- The anomaly is the Northeast, which has not changed.

**EXAM TIP** The candidate is looking to make three or four key points here. Remember to refer to an overall pattern first and then investigate regions. The use of place names and data will move the answer to a Level 2 response.

# Figure 3



## *Population density of England and Wales, 2011*




*Source:* www.ons.gov.uk

# Activity 2



**a**

- The pattern is uneven, with the UK having a population density range from 0 to 5000+ per km$^2$.
- Highest population densities are found in the major cities – London in the Southeast, and Manchester and Liverpool in the Northwest.
- Lowest population densities are found in the more remote regions of the North and the majority of Wales.

**EXAM TIP** Make three or four key points here. Remember to refer to an overall pattern first and then investigate the regions with the highest and the lowest examples, always backing up your points with data. Use of place names and data is expected for a Level 2 response.

# Activity 2
CONTINUED



**b** • Population density varies due to both human and physical factors.

**EXAM TIP** Responses should refer to both human and physical factors. The best answers for a Level 3 response will go further than basic points such as close to natural resources, giving examples of these kinds of resources, and use one or more actual places in the UK where this is apparent.

# Online activity



- The online map is an excellent way to show the population distribution in the UK and highlights clearly the highest and lowest densities, such as the high density of the Southeast. Another strength is the ability to focus on particular areas and also add place names in addition to the road network shown.
- However, the map does not show any actual figures for population, so it only provides an overview of the pattern. The data are also from the 2011 Census and are therefore out of date.

# UNIT 2

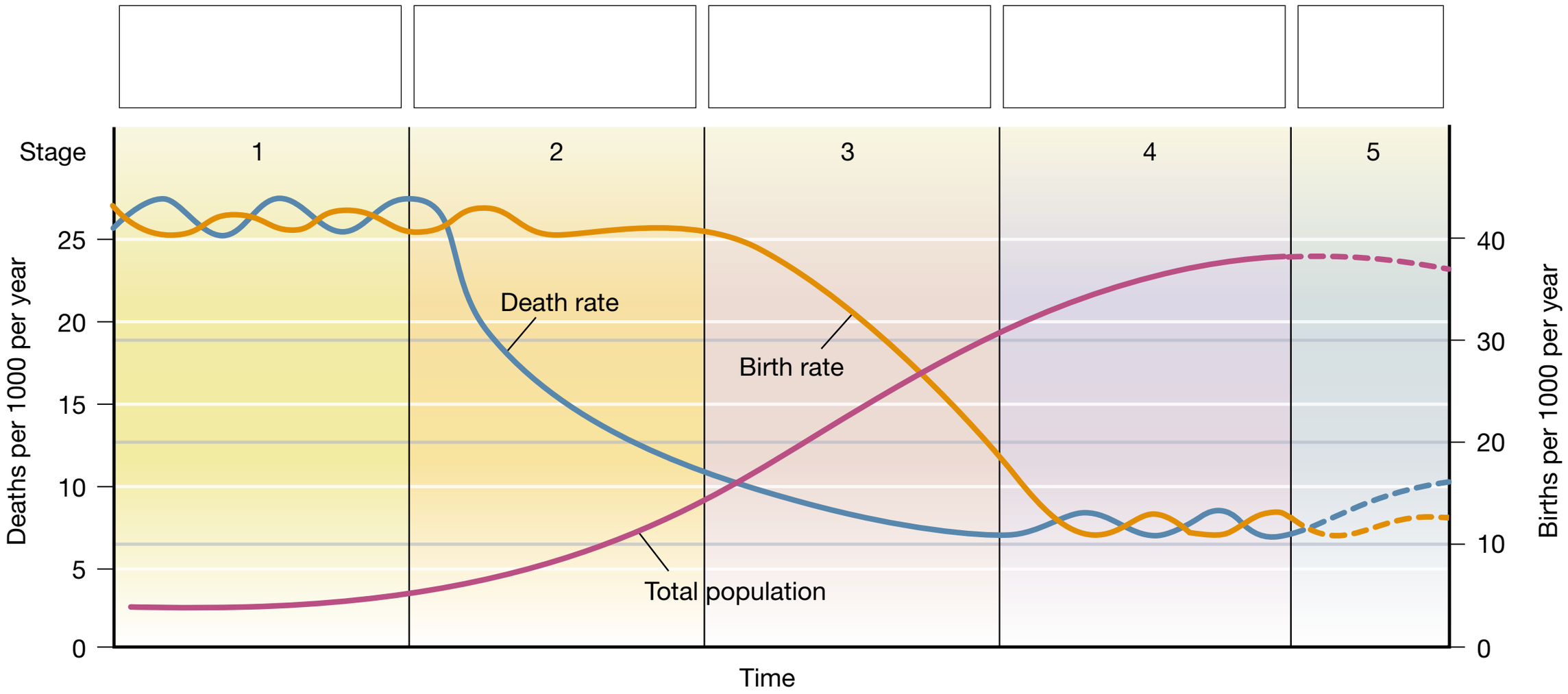
# Population change and the Demographic Transition Model

## Resources and answers to activities

# Figure 1

## Population change and the Demographic Transition Model

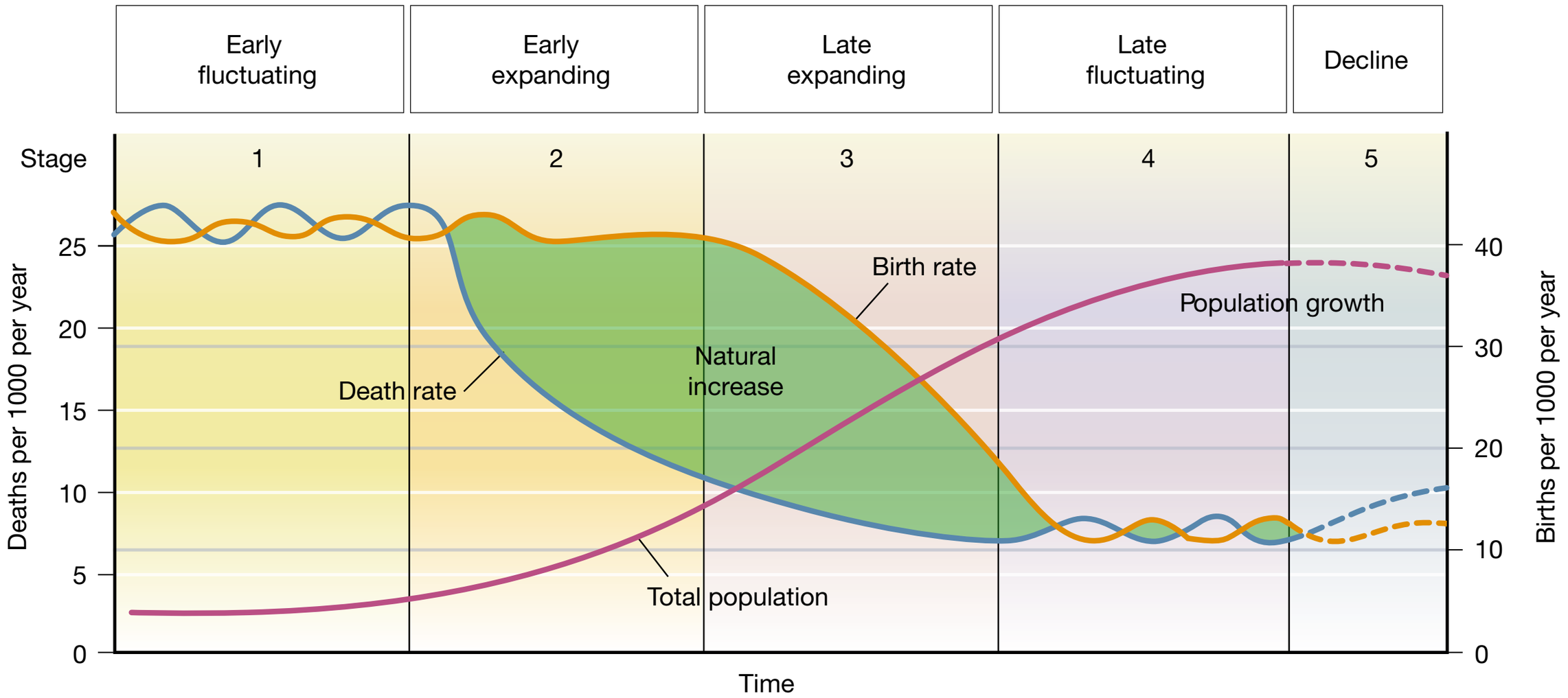
## *The Demographic Transition Model*



# Activity 1

## Population change and the Demographic Transition Model

**a** **b**



# Figure 2

## Population change and the Demographic Transition Model

## *Stages of the Demographic Transition Model*

| Stage | Birth rate | Death rate | Total population |
|---|---|---|---|
| Stage 1 | High and fluctuating | | Little change |
| Stage 2 | Rapid decline | High and fluctuating | |
| Stage 3 | | Beginning to decline slowly | Population increasing |
| Stage 4 | | Low and fluctuating | Little change |
| Stage 5 | Beginning to decrease slowly again | | Population decline |

# Activity 1
CONTINUED



**c**

| Stage | Birth rate | Death rate | Total population |
|---|---|---|---|
| Stage 1 | High and fluctuating | High and fluctuating | Little change |
| Stage 2 | Rapid decline | High and fluctuating | Population rapidly increasing |
| Stage 3 | Slower decline | Beginning to decline slowly | Population increasing |
| Stage 4 | Low and fluctuating | Low and fluctuating | Little change |
| Stage 5 | Beginning to decrease slowly again | Low and fluctuating | Population decline |

# Activity 1
CONTINUED



**d**

- Birth and death rates change for a number of reasons.
- Death rates initially fall due to advancements in medical care such as the introduction of vaccinations or medication. Further falls in death rates are due to increased food availability, leading to better diets, improvements in water quality and sanitation, and higher quality shelter.
- Birth rates fall later, due to the introduction of contraception and family planning. Subsequent changes in birth rates tend to be due to changes in the role of women in society – a career focus has resulted in marrying later and having children later.

# Activity 1
CONTINUED

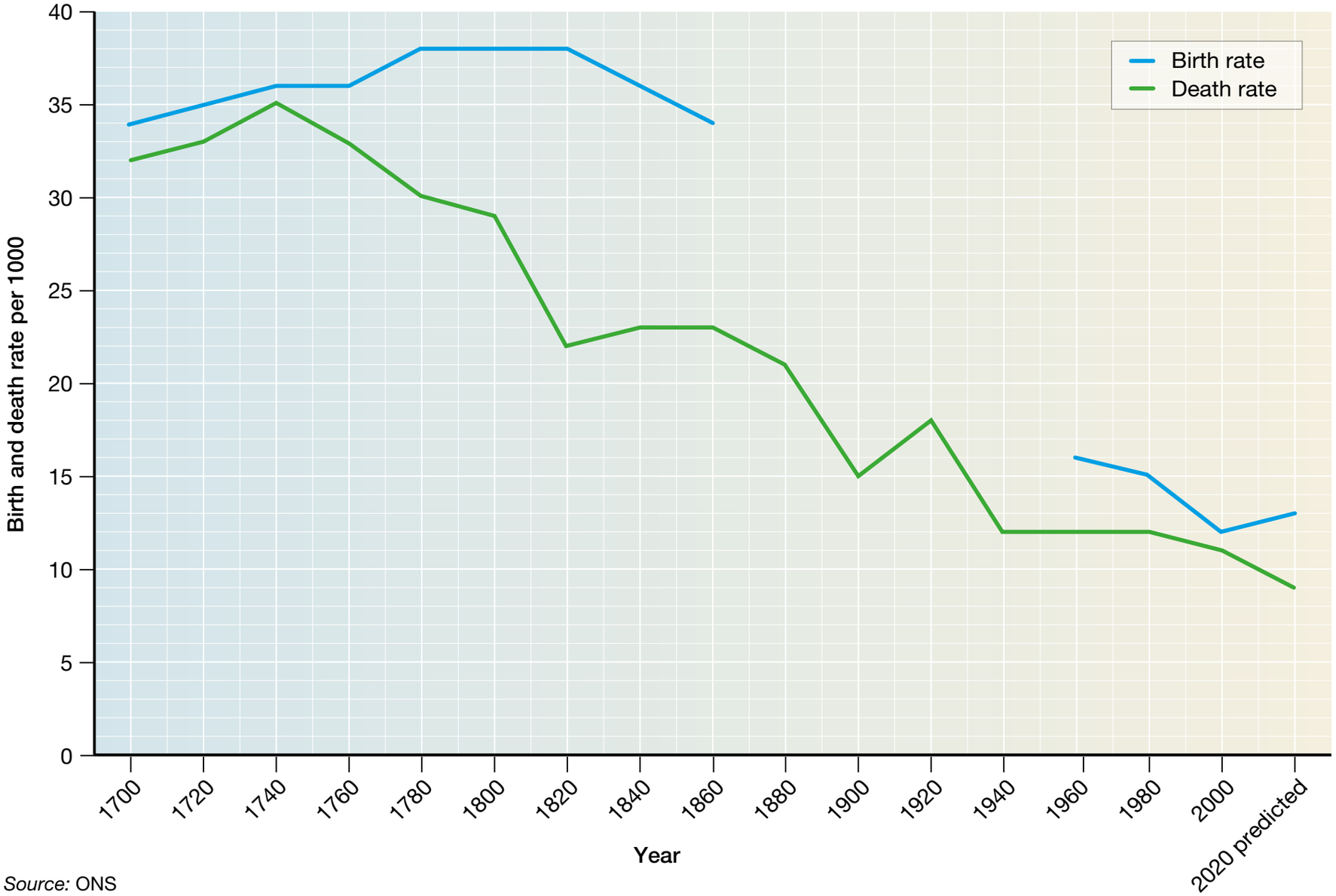


**EXAM TIP** Answers need to explain the reasons behind birth and death rate changes. Any use of actual examples would be excellent. This question really needs candidates to link and develop their ideas and points thoroughly to access Level 3 .

# Figure 3

## Population change and the Demographic Transition Model

## *A Demographic Transition Model for the UK*

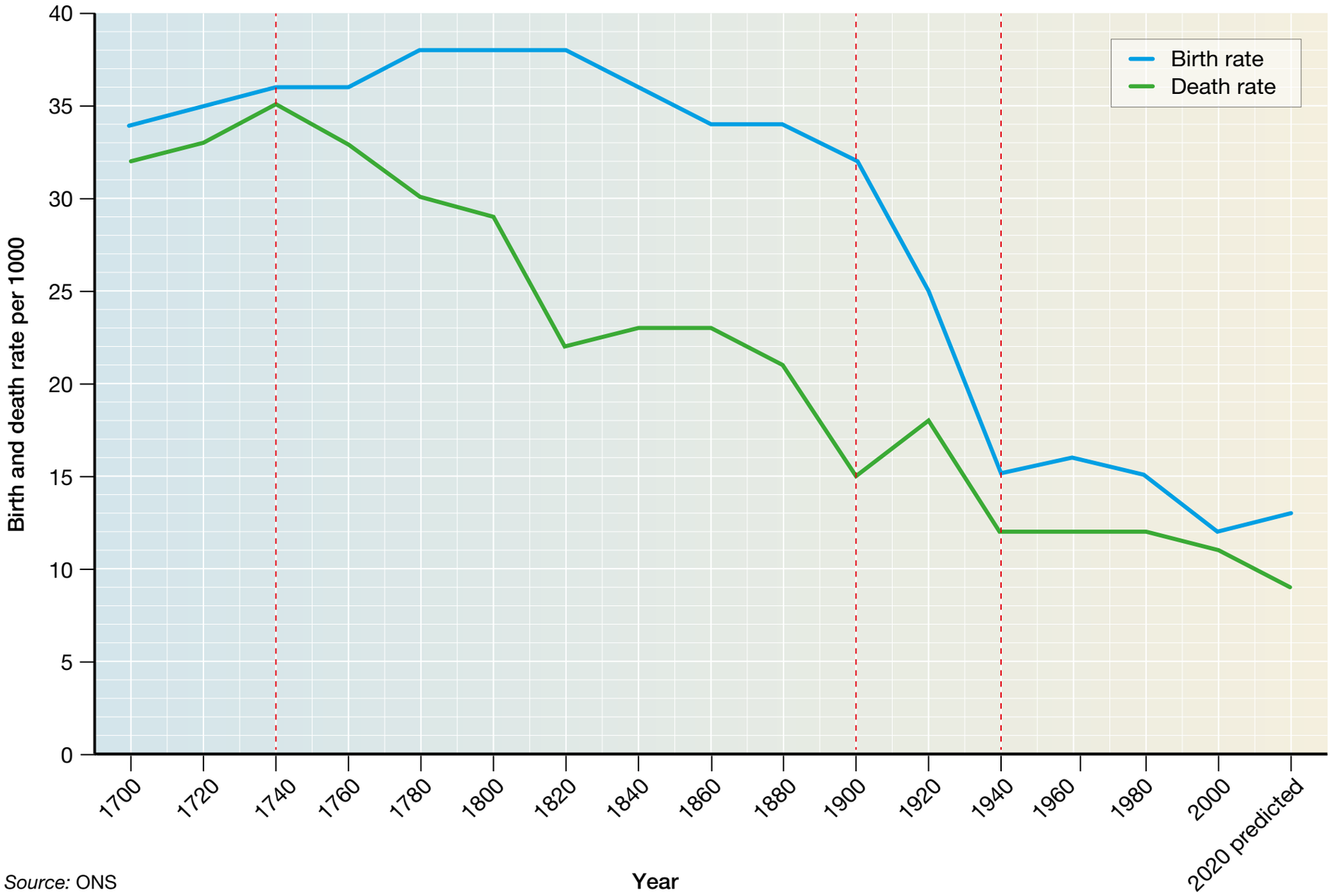



*Source:* ONS

# Activity 2

## Population change and the Demographic Transition Model

**a** **b**




*Source:* ONS

# Activity 2
CONTINUED



**c**

- Birth and death rates have both declined since 1700, with death rates falling rapidly first. Birth rates have always exceeded death rates.
- The period 1740–1940 saw the greatest difference in birth and death rates, leading to a high natural increase in the UK during this time.
- The death rate has decreased steadily since 1740, but the birth rate after 1900 fell rapidly, halving in 40 years from 32/1000 to 15/1000.

**EXAM TIP** Try to avoid telling a story. Describe the changes of the two rates together and how they are linked. The use of figures and dates is crucial to gain full marks.

# Activity 2
CONTINUED



**d**

- The UK fits the model very closely, with the birth and death rates falling over time.
- The UK clearly goes through four stages in the time period, starting with high rates in 1700 and finishing with low rates post-1970.
- The lines do slightly fluctuate at times to take into account events within the country, such as the improvement in family planning or the impact of the wars in the twentieth century.
- The UK experience does, however, have different stage lengths – Stage 2, for example, is much longer compared to others.

# Activity 2
CONTINUED



**EXAM TIP** This question with the command term 'to what extent' means that the candidate needs to present both sides. In this case, the important part is to say how the UK fits the model and how it does not. Present both sides using dates and figures to access Level 3.

# Online activity



- Descriptive points should include the fact that there will be an increase in the population of 11 million by 2045, with the majority of the increase coming in the 65+ age group. The 65+ age group will account for nearly a quarter of the UK population by 2045. Immigration from the rest of Europe and other nations will also account for the increase in the UK population.
- Explanatory points should include the fact that there will be longer life expectancy in the country due to better medical care and advancements. A good point to note is that an increased life expectancy may not mean a better quality of life.

# UNIT 3

# Population structure and population pyramids

## Resources and answers to activities

# Figure 1

## Population structure and population pyramids

## *The population structure of the UK, 1974–2039*

| | Population aged 0–15 (%) | Population aged 16–64 (%) | Population aged 65 and over (%) |
|---|---|---|---|
| 1974 | | 61.0 | 13.8 |
| 1984 | 21.0 | 64.1 | 14.9 |
| 1994 | 20.7 | 63.4 | 15.8 |
| 2004 | 19.5 | | 15.9 |
| 2014 | 18.8 | 63.5 | 17.7 |
| 2024 † | 19.0 | 61.1 | 19.9 |
| 2034 † | 18.1 | 58.5 | 23.3 |
| 2039 † | 17.8 | 57.9 | |

*Note:* † Indicates population projections
*Source:* www.ons.gov.uk

# Activity 1

## Population structure and population pyramids

### a *The population structure of the UK, 1974–2039*

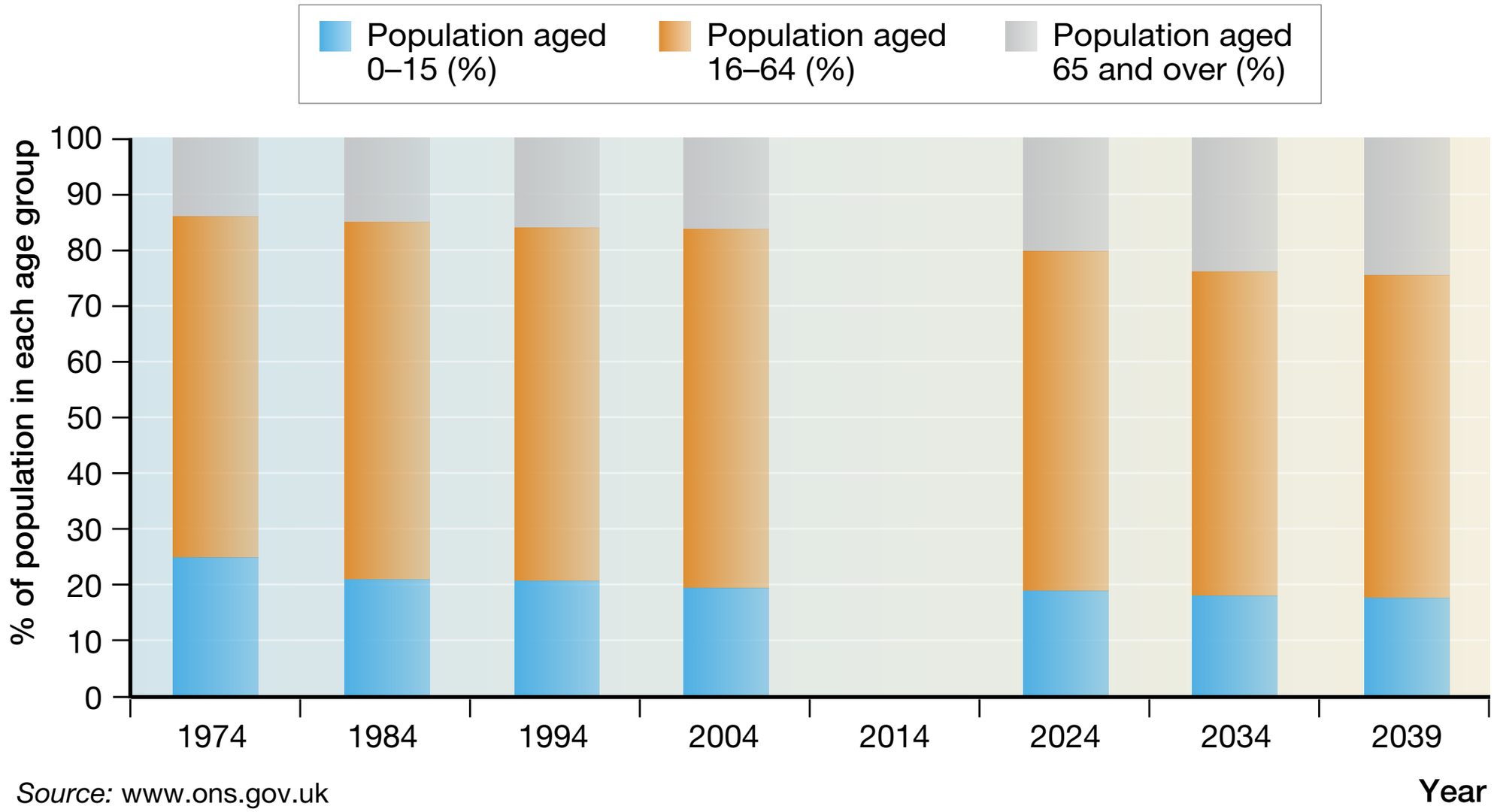
| | Population aged 0–15 (%) | Population aged 16–64 (%) | Population aged 65 and over (%) |
|---|---|---|---|
| 1974 | **25.2** | 61.0 | 13.8 |
| 1984 | 21.0 | 64.1 | 14.9 |
| 1994 | 20.7 | 63.4 | 15.8 |
| 2004 | 19.5 | **64.5** | 15.9 |
| 2014 | 18.8 | 63.5 | 17.7 |
| 2024 † | 19.0 | 61.1 | 19.9 |
| 2034 † | 18.1 | 58.5 | 23.3 |
| 2039 † | 17.8 | 57.9 | **24.3** |

*Note:* † Indicates population projections
*Source:* www.ons.gov.uk

# Figure 2

## Population structure and population pyramids

*A composite bar graph to show population structure of the UK, 1974–2039*

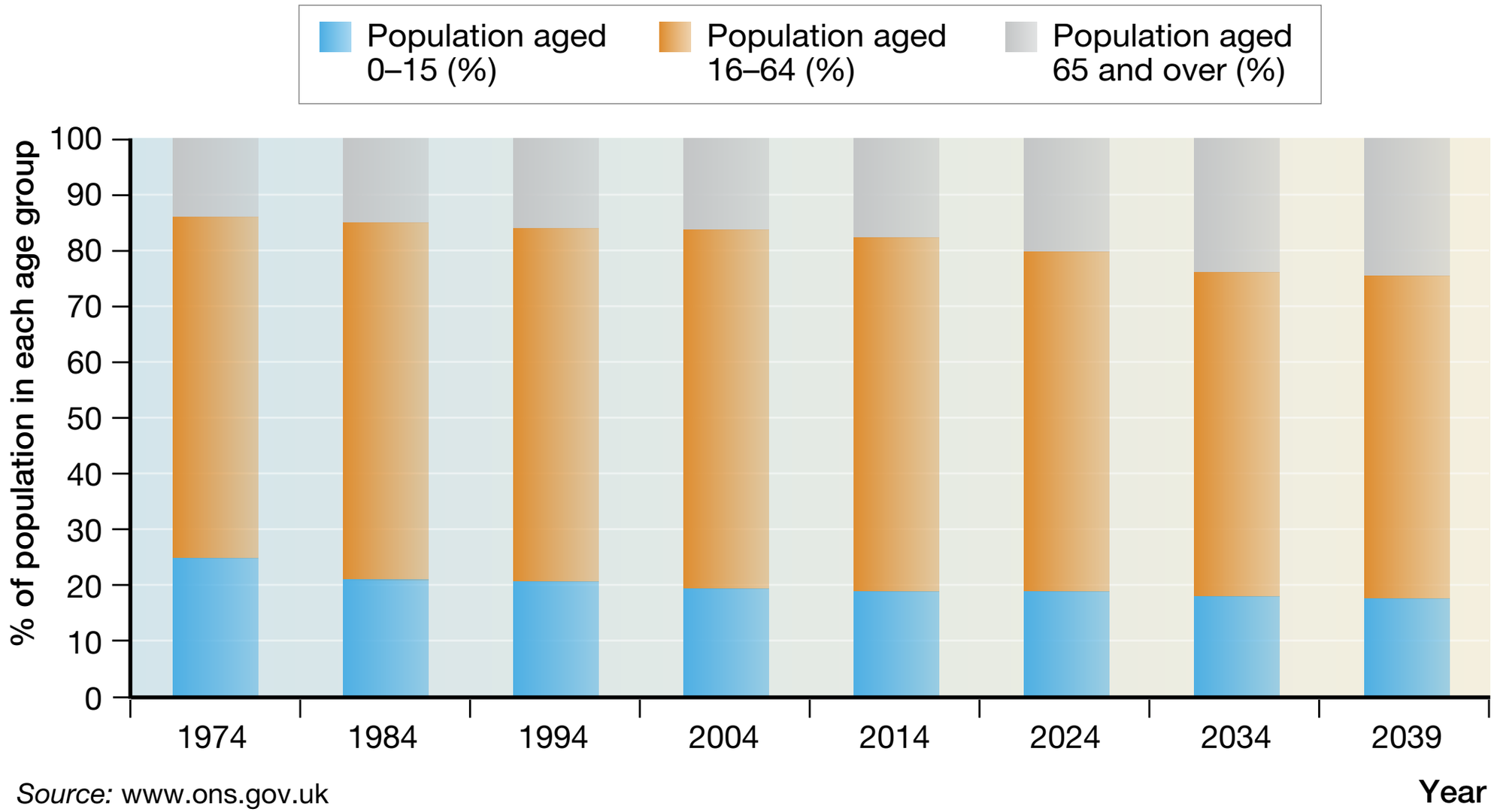



*Source:* www.ons.gov.uk

Activity 1
CONTINUED



## b *A composite bar graph to show population structure of the UK, 1974–2039*




*Source:* www.ons.gov.uk

# Activity 1
CONTINUED



**c**

- There has been and will be a very large change in the population structure between 1974 and 2039.
- The largest changes will be seen in the dependent population (0–15 and 65+).
- The percentage of elderly will nearly double in this time period and the percentage of 0–15 year olds will drop by 7.4%.

**EXAM TIP** In order to gain Level 2, three clear points about the changes in structure are required. Top mark answers will contain some use and manipulation of figures and dates from the table or bar graph.

# Activity 1
CONTINUED



**d**

- With a shrinking workforce, there will be more pressure on this age group to find the funds through taxes to provide for the dependent population – both elderly and young. This could be in the form of providing money for pensions, education and welfare services.
- With an increasing elderly population, there will be an increased demand and pressure on social services such as care homes and transport services.
- With a decreasing youthful age group, there could be concerns over the size of the future workforce.

# Activity 1
CONTINUED

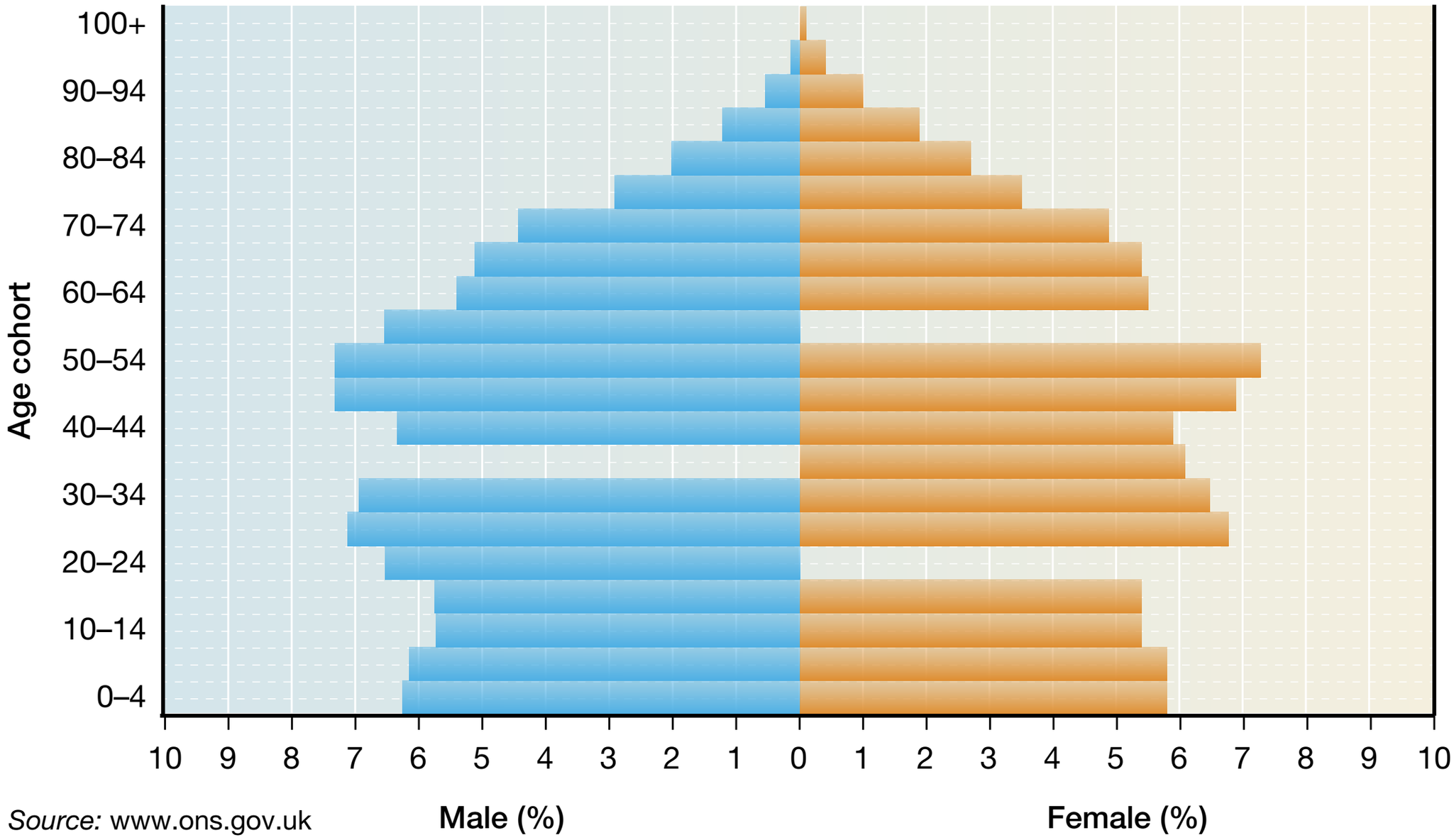


**EXAM TIP** For Level 3, three clearly different responses are needed, possibly relating to the three different age groups, though they are closely linked together. The best responses may also consider social, economic and political impacts and focus on positives as well as negatives.

# Figure 3



## *A population pyramid for the UK, 2017*

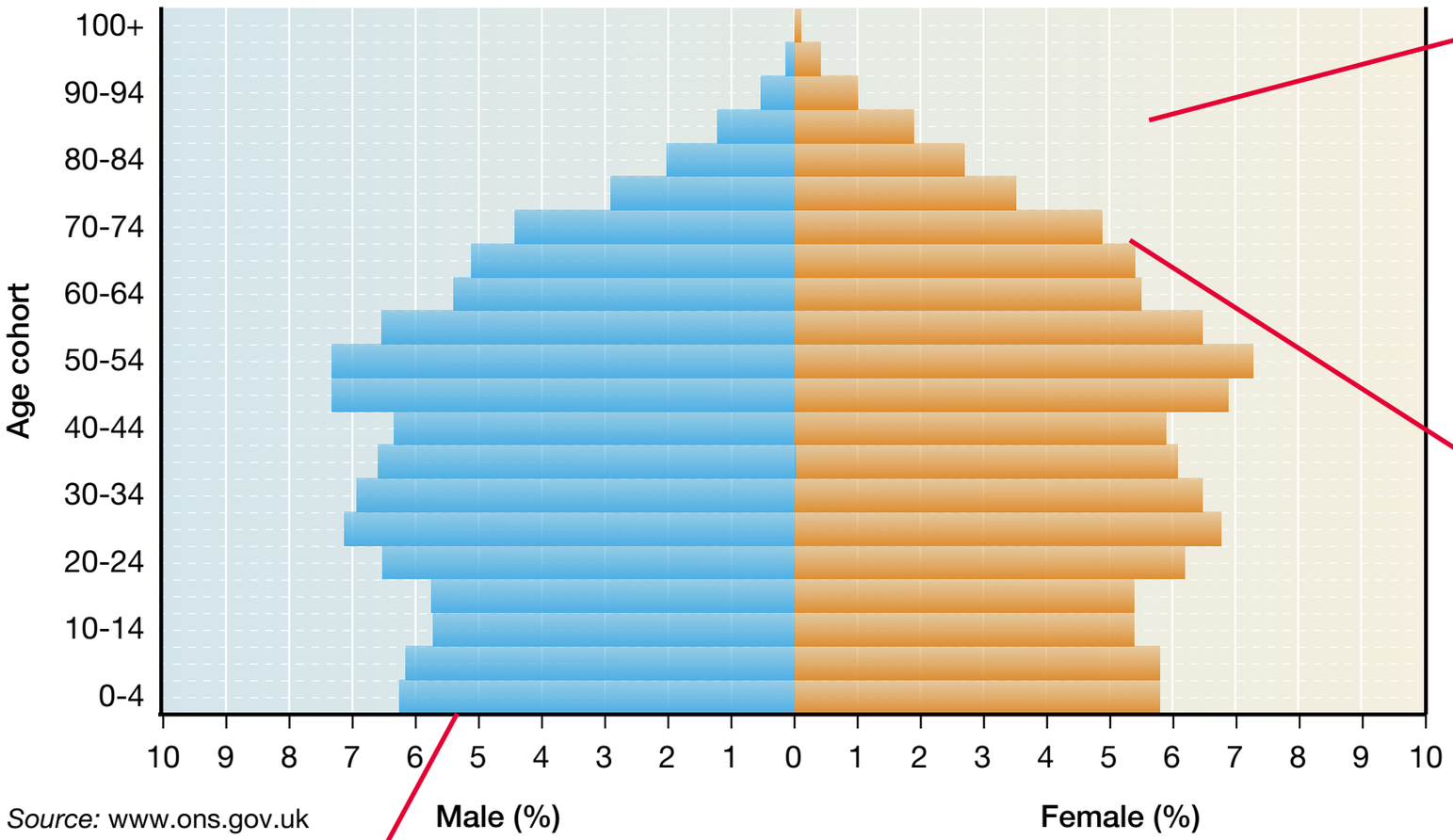



*Source:* www.ons.gov.uk

# Activity 2



**a** **b** ***A population pyramid for the UK, 2017***




A higher life expectancy for females

High birth rates at the end of the 1960s and start of the 1970s

A recent increase in the birth rate