

The Demographic Transition

28/03/2018

Model (DTM)

Do Now

Remember the map below, what does it show?



Aim

- To understand how countries position in the DTM

<https://www.youtube.com/watch?v=d9xrwtqhTmw>

- Make notes on the following video using your 5Ws sheet

PREVIEW



- The DTM describes a sequence of changes over a period of time in the relationship between birth and death rates and overall population change.
- The model is based on population change in several industrialised countries in western Europe and North America.
- The model suggests that all countries will pass through similar demographic transition stages of population cycles.

There are 5 stages to the DTM



Births/ Deaths per 1000

1

2

3

4

5

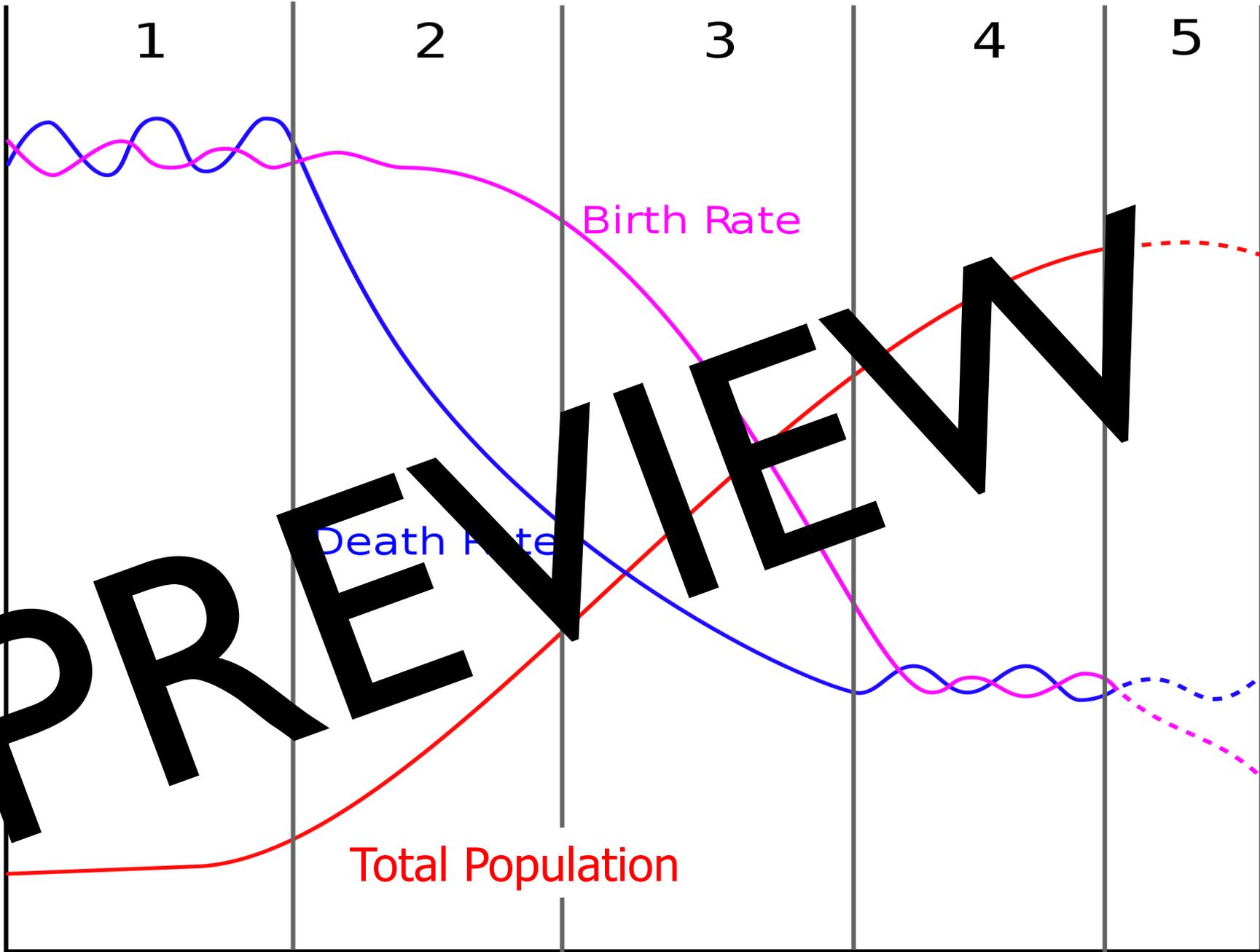
Birth Rate

Death Rate

Total Population

Time

PREVIEW



Task

How does the DTM link to the Brant line?
Explain your answer



- Stage I (high fluctuating)

- A period of high fluctuating birth and death rates (around 35 per 1000) which gives a small population growth.

Reasons:

- Limited birth control and family planning
- High infant mortality
- Children are the source of future income
- In some cultures children are the sign of fertility
- Some religions encourage large families
- High incidence of disease
- Poor nutrition and famine
- Poor levels of hygiene

Little medical science including doctors, hospitals and drugs.

PREVIEW



- Stage 2 (early expanding)

- Birth rates remain high but death rates fall rapidly to about 20 per 1000 people giving a rapidly expanding population.

Reasons:

- Improved public health
- Decrease in child mortality
- Improved medical provision and vaccinations
- Improvements in food production (better nutrition)
- Improved transport to move food, doctors etc.

PREVIEW



- Stage 3 (late expanding)
- Birth rates fall rapidly to around 20 per 1000 people. Death rates continue to fall (15 per 1000 people) to give a slow increasing population.

Reasons:

- Changing socioeconomic reasons
- Emancipation of women. Women now educated and having own careers and therefore having children later or not at all.
- Preference for small families
- Increased personal wealth and desire for material possessions.
- Compulsory schooling makes children more expensive
- Low infant mortality rates
- Availability of family planning
- Availability of abortion

PREVIEW



- Stage 4 (low fluctuating)

- Low birth rates (16 per 1000) and low death rates (12 per 1000) which fluctuate slightly to give a steady population.

- Population growth is small

- Fertility dropping

More women in work force

PREVIEW



- Stage 5 (decline)

- Death rate slightly exceeds birth rate
- Population declines

Reasons

- Emancipation of women in the labour market
- Greater financial independence of women
- Concerns of population growth and resources
- Increase in contraceptive sex relationships
- Rise in the concept of childlessness
- Ageing population causes increased death rate



The DTM in detail

The DTM



PREVIEW

Make notes on each stage

Stage 1 – High fluctuating	Stage 2 – Early expanding	Stage 3 – Late expanding	Stage 4 – Low fluctuating	Stage 5 – Decline?
UK pre 1760	UK 1760 to 1870	UK 1870 to 1950	Post 1950	Soon?
Amazon Basin tribes	Kenya	Brazil	UK	Japan



Make a copy of this model. Add your own examples and facts if you can!

5. Japan



1. Amazonian Trib



2. Afghanistan



3. Nigeria



UK



Uses of the DTM

- The concept is universal
 - It can be used to predict how a population will change over time
 - It is easy to understand
 - Enables demographic comparisons between countries
 - It describes what has happened in the UK
 - USA and many other western countries have also been through the same stages
 - Some countries are going through it at the moment - Newly Industrialised Countries, like South Korea
- Explains what has happened
- Explains why it happened in that particular sequence

Limitations

- Like all models the DTM has its limitations.
- There is now a need for a stage 5 as in some countries population are declining.
- The model is Eurocentric and assumes all countries will pass through all 4 stages.
- Some countries may never reach industrialisation.
- Stage 2 of the model assume death rates fall due to industrialisation. However in the UK during stage 2, death rates rose due to insanitary conditions which arose due to rapid growth and it only fell after advances in medicine.

- The fall in birth rate in stage 3 has been less rapid due to political or religious opposition to birth control. Whereas in some countries the fall was more rapid due to government policies (China).

- The timescale in some South East Asian countries is being squashed as they are developing at a much faster rate than the early industrialised countries did.



MEDC's and LEDC's have gone through population change in a number of different ways

LEDCs have generally.....

- Had higher birth rates in stages 1 and 2
- Had steeper fall in death rates
- Larger population bases in stages 2 and 3 due to higher populations in stage 1 and therefore the fall in fertility has been greater.

There has been a weaker relationship between population change and economic development



Task

Answer the following questions using your notes:

1. How does falling birth rate reflect increased economic development?
2. How can an increasing death rate reflect high level of development?
3. What is the impact of Japan and Germany being in stage 5 of the DTM?
4. What concerns do rich nations have about population growth?

Ext - How can the UK move from stage 4 to stage 5 of the DTM?

What effect will this have on the country?

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

PREVIEW



What have we learnt today?

Aim

- To understand how countries position in the DTM

PREVIEW

