4 DEMOGRAPHIC TRANSITION

1. Warm-up: Complete the gaps with any suitable answers. Then listen and compare.

https://www.youtube.com/watch?v=nonCD5GR9bw 1.04 – 2.07

1. The demographic transition model shows the interactions between three …… over time: birth rate, death rate, and the rate of natural increase.

2. If a country's birth rate is 66, that means 66…… to …… in a particular year.

3. If a country has a birth rate of 66 and a death rate of 25, then its rate of natural increase is ……..

4. The world's current rate of natural increase is approximately ……%.

2. Brainstorm what you know about demographic transition:

- What demographic changes take place as a country develops from a pre-industrial to an industrialized economic system?
- How many stages are there in the transition model?

Draw the graph of the demographic transition.

Vocabulary for graphs - choose a few expression and describe your picture.

fluctuate	*at high level*	*remain high / low*	*fall*	*grow*	*moderate growth*
vary	*at low level*	*approach zero*	*drop*	*rise*	*rapid drop*
level off		*reach a peak*	*decrease*	*increase*	*low increase*
			decline		

Demographic Transition and Population Pyramids

https://www.youtube.com/watch?v=nonCD5GR9bw

1. Watch the first part of the video and decide whether the statements are true or false. 2.14 - 4.30

A) Stage 1: In the first stage birth and death rate vary.

B) Stage 2: The drop of the death rate is due to improvements in education.

C) Stage 3: Nations in stage three see children as a necessity.

D) Stage 4: Natural increase of population approaches zero.

E) Stage 5: Shrinking population means people have shorter lives.

F) Natural increase in stage 4 resembles natural increase in stage 1.

3. Population pyramids

Use the words below to write an explanation of what a population pyramid is. Check with the video 4.38.

It is a …… that…….. by displaying …… on a …… .

country's population *age and gender* *graphic device* . *groups* *two-sided graph* *demonstrates* *structure*

What does the population pyramid of your country look like?

Draw population pyramids representing 4 stages of the demographic transition model. Describe them.

1. **2.** **3.** **4.**

Watch the last part and complete the table below. 4.30 – 5.50

1. A population pyramid is this type of graph	
2. Which characteristic of a pyramid shows a lot of information?	
3. Wide bottom indicates high	
4. Sharply pointed end of a pyramid means high	
5. If the top of a pyramid is thick, this is high	

Stages of Demographic Transition

In pairs check whether you understand the meanings of these words.

shrinking population *sanitation* *life span* *stagnant development*

subsistence agriculture *contraception* *economic burden* *imbalance*

Put the parts A – D in the right order.

A During this stage there are both low birth rates and low death rates. Birth rates may drop to well below replacement level, leading to a shrinking population. As the large group born during stage two grows old, it creates an economic burden on the shrinking working population. Death rates may remain consistently low or increase slightly due to increases in lifestyle diseases because of low exercise levels and high obesity and an aging population.

B Death rates drop rapidly owing to improvements in food supply and sanitation, which increase life spans and reduce disease. These changes usually come about due to improvements in farming techniques, access to technology, basic healthcare, and education. Without a corresponding fall in birth rates this produces an imbalance, and the countries in this stage experience a large increase in population.

C Birth rates fall as a result of access to contraception, increases in wages, urbanization, a reduction in subsistence agriculture, an increase in the status and education of women, a reduction in the value of children's work, an increase in parental investment in the education of children and other social changes. Population growth begins to level off.

D In this stage death rates and birth rates are high and roughly in balance. Population growth is typically very slow. Unless the society develops new technologies to increase food production (e.g. discovers new sources of food or achieves higher crop yields), any fluctuations in birth rates are soon matched by death rates.

Find phrases in the text which express cause – effect relationship.

Hans Rosling: Global population growth, box by box

https://www.ted.com/talks/hans_rosling_on_global_population_growth

Professor Rosling talks about people in different countries and their wishes about what they want to buy. What do you think these wishes are?

- in developing countries:
- in newly industrialized countries/emerging economies:
- in the richest countries:

Read the extract form the talk and explain how you understand the underlined phrases.

And what will happen in the future? Well, I'm going to project into 2050. I was in Shanghai recently, and I listened to what's happening in China, and it's pretty sure that they will catch up, just as Japan did. …… And these lower or middle income countries, the emerging income countries, they will also forge forwards economically. And if, but only if, we invest in the right green technology — so that we can avoid severe climate change, and energy can still be relatively cheap — then they will move all the way up here. And they will start to buy electric cars. This is what we will find there.

So what about the poorest two billion? What about the poorest two billion here? Will they move on? Well, here population [growth] comes in because there [among emerging economies] we already have two to three children per woman, family planning is widely used, and population growth is coming to an end. Here [among the poorest], population is growing. So these [poorest] two billion will, in the next decades, increase to three billion, and they will thereafter increase to four billion. There is nothing — but a nuclear war of a kind we've never seen — that can stop this [growth] from happening. Because we already have this [growth] in process. But if, and only if, [the poorest] get out of poverty, they get education, they get improved child survival, they can buy a bicycle and a cell phone and come [to live] here, then population growth will stop in 2050.

Watch the video and say how far you agree with the professor.

More of his arguments here – watch for homework
Will saving poor children lead to overpopulation? https://www.youtube.com/watch?v=BkSO9pOVpRM

HOMEWORK: Demographic Transition - Stage One
Complete the missing terms. There are three extra words that will not be needed.

exceeding *determined* *fluctuated* *contribution* *mortality* *deaths*
nonexistent *siblings* *insurance* *education* *increased*

In pre-industrial society, death rates and birth rates were both high, and **1**…… rapidly according to natural events, such as drought and disease, to produce a relatively constant and young population. Family planning and contraception were virtually **2**……; therefore, birth rates were essentially only limited by the ability of women to bear children. Emigration depressed death rates in some special cases (for example, Europe and particularly the Eastern United States during the 19th century), but, overall, death rates tended to match birth rates, often **3**…… 40 per 1000 per year. Children contributed to the economy of the household from an early age by carrying water, firewood, and messages, caring for younger **4**……, sweeping, washing dishes, preparing food, and working in the fields. The total cost of raising children barely exceeded their **5**…… to the household. In addition, as they became adults they become a major input to the family business, mainly farming, and were the primary form of **6**…… for adults in old age. In India, an adult son was all that prevented a widow from falling into poverty. While death rates remained high there was no question as to the need for children, even if the means to prevent them had existed.
During this stage, the society evolves in accordance with Malthusian paradigm, with population essentially **7**…… by the food supply. Any fluctuations in food supply (either positive, for example, due to technology improvements, or negative, due to droughts and pest invasions) tend to translate directly into population fluctuations. Famines resulting in significant 8…… are frequent.

sources

http://www.i-study.co.uk/Students/IB%20Population%20SoW.html
https://en.wikipedia.org/wiki/Demographic_transition
E. Čoupková, English for Geographers
Mr Condom in Thailand - recommended to watch
https://www.ted.com/talks/mechai_viravaidya_how_mr_condom_made_thailand_a_better_place/transcript?language=en#t-600010