Change: Geography
by Keith Kelly

one stop clil

AGE: Teenagers
LEVEL: Intermediate
TIME NEEDED: Approx. 90 minutes
OBJECTIVES: to learn about factors affecting population change around the world; to take part in a whole class discussion and small group discussions; to complete exercises on words linked to change and interaction
KEY SKILLS: reading, speaking, writing, listening
MATERIALS: one copy of the worksheet per student; one set of *Factors affecting population change* (A-F) and *How population changes* (1-6) cut-out cards per group of three or four students

Content focus
Factors affecting population change

Warm-Up: 2-3 minutes
Activity 1: 15 minutes
Activity 2: 15-17 minutes
Activity 3: 10 minutes
Activity 4: 10 minutes

WARM-UP

1. Hand out the worksheet and focus the students' attention on the photograph of a very populated scene. Tell them that, according to some estimates, the world's population passed seven billion in 2011. Ask students to imagine what they think the maximum population on Earth could be in the future, and when we might reach this. There is of course no accurate answer, but it allows students to think about and discuss the question.

ACTIVITY 1

2. Encourage students to think of as many factors as possible that affect population change. Put students in pairs and tell them to discuss their ideas, then get feedback from each of the pairs and write up their ideas on the board.

3. Put students in small groups of three or four and hand out a set of the cut-up *Factors affecting population change* cards, labelled A-F, to each group. Encourage them to talk about each factor on the cards, discussing how these factors affect population change.

ACTIVITY 2

4. Hand out a set of the cut-up *How population changes* cards, labelled 1-6, to each group. Get students to read the cards quickly and match them to the correct cards A-F. Go around the class and check each group's answers.

Key
1. E; 2. F; 3. D; 4. A; 5. B; 6. C;

5. Tell students to read cards 1-6 again, this time more slowly, and ask them to identify how many of their ideas from Activity 1 they can find in the texts concerning the ways in which population change is affected. Ask them to tell you about any new suggestions they can find in the texts and add these to the list on the board.

ACTIVITY 3

6. Get students to match the three parts A, B and C to make sentences about population change. Ask students not to refer back to cards 1-6 to do this activity. When they have finished, elicit answers from the whole group and encourage students to check their answers with the texts on the cards.

Key
Food supplies and food quality can help maintain a healthy population.
Improved modern machinery increases the supply of things to eat.
War generally reduces the population growth rate in the affected countries.
Improved educational standards in a country encourages a fall in family size.
Women marrying young and having large families brings a growth in population.
Crop failure can result in death from famine, which leads to a rapid fall in population.

ACTIVITY 4

7. Get students to read cards 1-6 again and complete the definitions with the correct words in the texts. This activity enables students to guess some of the more difficult words in context.

Key
1. famine; 2. civilians; 3. decision-making; 4. sewerage;
5. pesticides; 6. birth control

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Language focus
Change and interaction

Activity 1: 10-15 minutes
Activity 2: 10 minutes
Activity 3: 15 minutes

Get students practising language linked to change and interaction by reading the Your CLIL: Change: Geography article

ACTIVITY 1

Get students to write the correct form of the noun into the tables for each of the verbs used for describing growth and change. They can use a dictionary if needed.

Tip: In cases where the verb and the noun are the same (*decline*, *increase*, etc.), let students know that the stress is on the first syllable for the noun and on the second syllable for the verb.

Key

1. change; 2. decline; 3. decrease; 4. enlargement; 5. expansion; 6. explosion; 7. growth; 8. improvement; 9. increase; 10. maintenance; 11. remainder; 12. spread; 13. swell/(ing)

ACTIVITY 2

Get students to find and circle the words in the wordsearch used for describing change and interaction.

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L D G T D E L G A L V H M D R O
F V O B K J G P R S V I I C M I
G T S B F Z M S H P M T L O A S
Q R S N A I S O Y R A H Z N J E
L D A R L F H S F E I E O N V H
F R G A L L O W G A N I R E W T
E M E N N R Y N L D T E N C G N
N R E E P O A E A U A O O T A I
I S I E N R E I B P I A M I M E
X G U Z R L E I Z E N E L O V F
Z I B A L L R D R D C S A N N R
E X P E C T N V I I A O H E K F
T H W N S U S U S C F I M T K E
A S O I C I N T R I T U G E L X
R B D A R S G E U A C P I A A R
G N T S T E M C L T S C A S V V
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ACTIVITY 3

Get students to read the sentences and fill in the gaps with words used for describing interaction and distribution. Students then complete the crossword with the words. All the words appear in the Your CLIL: Change: Geography article, although some are in different forms. The first letters are given as prompts.

Key

Across – 3. patterns; 7. interact; 8. preserve; 9. distributed
Down – 1. prevent; 2. encourage; 4. scattered; 5. provided; 6. dispersed

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Content focus
Factors affecting population change

WARM-UP

Look at the photo. According to some estimates, the world's population passed seven billion in 2011. What do you think the maximum population on Earth could be in the future? When might this be reached, in your opinion? Share your ideas with the class.

ACTIVITY 1

Think of as many factors as you can that affect population change. Talk with a partner for a few minutes, and then share your ideas with the class.

In small groups, look at cards A-F and talk about how each factor affects population change.

ACTIVITY 2

Read cards 1-6 quickly and match them to the correct cards A-F.

Read cards 1-6 again, this time more slowly, and see how many of your class suggestions for factors affecting population change you can find. Are there any new suggestions?

ACTIVITY 3

Without looking at cards 1-6, match parts A, B and C to make sentences about population change. One sentence has been completed for you.

A	B	C
Food supplies and food quality	brings a growth	a fall in family size.
Improved modern machinery	can help maintain	a healthy population.
War	can result in	in population.
Improved educational standards in a country	encourages	death from famine, which leads to a rapid fall in population.
Women marrying young and having large families	generally reduces	the population growth rate in the affected countries.
Crop failure	increases	the supply of things to eat.

ACTIVITY 4

Read the definitions and complete with words from cards 1-6. There is one word or phrase from each card.

1. a serious lack of food that continues for a long time and causes many people in a country to become ill or die _____

2. ordinary people who do not work for the military or the police

    _____

3. the process of deciding what to do about something in life _____

4. a system of pipes carrying waste water from homes and buildings

    _____

5. chemicals that are used for killing insects, especially those that damage crops

    _____

6. a method of avoiding pregnancy _____

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Language focus
Change and interaction

ACTIVITY 1

Read the verbs used for describing growth and change, and write the correct noun form in the right column. Use a dictionary to help you if needed.

	verb	noun
1	change	
2	decline	
3	decrease	
4	enlarge	
5	expand	
6	explode	
7	grow	

	verb	noun
8	improve	
9	increase	
10	maintain	
11	remain	
12	spread	
13	swell	

ACTIVITY 2

Find and circle the words used for describing change and interaction. The words can be found horizontally, vertically and diagonally.

allow
arrange
become
connection
distribution
expect
fall
maintain
predict
spread
swell

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L D G T D E L G A L V H M D R O
F V O B K J G P R S V I I C M I
G T S B F Z M S H P M T L O A S
Q R S N A I S O Y R A H Z N J E
L D A R L F H S F E I E O N V H
F R G A L L O W G A N I R E W T
E M E N N R Y N L D T E N C G N
N R E E P O A E A U A O O T A I
I S I E N R E I B P I A M I M E
X G U Z R L E I Z E N E L O V F
Z I B A L L R D R D C S A N N R
E X P E C T N V I I A O H E K F
T H W N S U S U S C F I M T K E
A S O I C I N T R I T U G E L X
R B D A R S G E U A C P I A A R
G N T S T E M C L T S C A S V V
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ACTIVITY 3

Complete the sentences with the missing words associated with interaction and distribution. Then complete the crossword with the words. The first letters have been given for you.

Across

3. Satellite photographs are used to predict and study weather p_____.

7. Weathering, vegetation, erosion, climate and people all i_____ to produce soil.

8. Urban renewal aims to p_____ inner city communities and upgrade their environments.

9. A 'settlement pattern' refers to the way settlements are d_____ or arranged in an area.

Down

1. Restricted profits p_____ countries and people from improving their living standards.

2. Steep slopes e_____ fast moving debris.

4. The s_____ population could do little to resist, so the country became an isolated colony of a foreign empire.

5. The invention of the steam engine p_____ widespread employment in European coalfields.

6. Individual houses can be arranged in d_____, linear or nucleated patterns.

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FACTORS AFFECTING POPULATION CHANGE

A technological development	B health	C war
D place of women in society	E food supply	F education

HOW POPULATION CHANGES

1 New farm machines allow larger areas of land to be worked than in the past. This increases food supplies. Improvements in fertilizers and pesticides help to produce heavier and healthier crops. The introduction of new processing methods, such as frozen foods, has increased the variety and quality of food types. Improvements in industry, such as computers, robots and more efficient production methods, means that fewer workers are needed. This causes unemployment. Unemployment leads to reduced family sizes. Unemployment also leads to emigration. This results in lower birth rates.

2 Improved educational standards in a country encourages a fall in the size of families. This is because educated women are more likely to choose to have fewer children than uneducated mothers. They practise more birth control than mothers who cannot read or understand family planning methods. They are more likely to work outside the home and follow careers. Such mothers tend to prefer smaller families. Well-educated populations in countries such as Germany tend to care more about their diet, working hours and leisure time than uneducated populations. This causes slower population growth in rich countries.

3 In developing societies with rapidly expanding economies, women have little decision-making power and have little control over their own lives. Tradition makes them marry young and have large families. This brings a growth in population. In developed societies, women are more likely to choose marriage later and have smaller families. This reduces population growth in more advanced economies.

4 Crop failure can result in migration or in death from famine, which leads to a rapid fall in population. Improved food production due to modern machinery and the use of pesticides increases the supply of things to eat, which generally leads to a healthier population. As a result, people live longer and can support larger, healthier families, so population increases.

5 Improvement in food supplies and food quality can help maintain a healthy population and has led to large population increases in most countries. Better medical care in many areas has increased population growth globally and examples of this include public vaccination schemes, improved medicines such as antibiotics, improved sewerage systems and purified public water supplies. Compulsory education for the young, as well as adults, has raised awareness about basic care and hygiene in all countries. This leads to higher hygiene standards, lower child mortality, longer life expectancy and increased population growth. This is especially true in developing countries such as Brazil. Many young children, however, still die of easily curable diseases, such as diarrhoea and typhoid, from unsafe water.

6 Countries fighting with each other generally reduces population growth rates. Great numbers of civilians and soldiers can die during military conflicts. Husbands and wives are often separated for long periods of time which results in lower birth rates. These low birth and increased death rates may be clearly seen on population graphs where there is a sudden change in the number of people in certain age groups during the years of military conflict. Additionally, many young men between the ages of eighteen and twenty-five who are killed in conflicts would have been fathers if their countries had not been fighting. This also leads to lower birth rates.

Adapted from *The Human Planet - Geography for Junior Certificate* by Patrick E.F. O'Dwyer, pp. 135-6 © Gill and Macmillan 2002