

Cause and effect: Geography

by Keith Kelly

AGE: Teenagers
LEVEL: Intermediate
TIME NEEDED: Approx. 90 minutes
OBJECTIVES: to consider what aspects of life are (or might be) affected by global warming; practise using language related to expressing cause and effect.
KEY SKILLS: reading, speaking, writing, listening
MATERIALS: one set of *Aspects and Consequences* strips per four students; one copy of *Global warming - consequences* per student; one copy of *Presentation Notes* per student

Content focus

Consequences of global warming

Warm up: 5 minutes
Activity 1: 10 minutes
Activity 2: 10 minutes
Activity 3: 7 minutes
Activity 4: 20 minutes (could be continued as homework)

WARM-UP

Snowball discussion:

For one minute, ask the students to think by themselves about what aspects of life on earth are affected, or might be affected, by global warming.

For two minutes, ask the students to join in pairs to discuss their ideas.

For two minutes, ask the pairs to join into groups of four and share their ideas.

ACTIVITY 1

Divide students into groups of four. Give each group a set of *Aspects and Consequences* strips. Ask the groups to match the *Aspects* to the *Consequences* and explain the links between them. Write the following example on the board: *As the temperature on the planet increases, weather patterns will change. Some regions will experience more extreme weather conditions and some areas will have more hurricanes than normal.* Facilitate the groups as needed.

Key

Oceans and ocean life: temperatures increase, levels rise, and fish populations change

Population sizes and movements: areas unsuitable for habitation, denser populations in certain areas, migration

Human health: some diseases, such as malaria, are more common in warmer climates, demands on health systems

Weather patterns: extreme conditions, hurricanes
Landscapes and seasons: glaciers melt, change in snow cover, longer summer

Climate changes: changes in jetstreams, depressions more intense further south

Water: flooding and drought, pressure on supplies, conservation efforts

Types and location of vegetation: crops grow best in certain conditions, pests and plant disease flourish in certain conditions

ACTIVITY 2

Give each student a copy of the *Global Warming - Consequences* text. Ask them to read it alone, then join with their group and use the text to compare against their answers for Activity 1.

ACTIVITY 3

In groups of four, ask the students to think about the consequences of global warming on their lives. What aspects of their lives will be affected by global warming, both negatively and positively?

Give each student a copy of the *Presentation notes* sheet. In groups of four, ask the students to choose one aspect of their lives that is (or will be) affected by global warming. They should research into the chosen aspect and create a four-minute presentation to be given to the rest of the class. Tell the groups that everyone must have a speaking role in the presentation and that they should try to vary their language (ie. not repeat a phrase that someone else has used).

This activity could be continued as homework and the presentations given at the beginning of the next lesson.

Encourage the students to use language related to cause and effect and use the sheet to help structure their presentations. Refer the students to [Your CLIL: Cause and Effect: Geography](#).

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Language focus

Cause and effect

Activity 1: 5 minutes
Activity 2: 8 minutes
Activity 3: 7 minutes
Activity 4: 10 minutes

Encourage the students to practise the language related to Cause and Effect in the Language Focus section.

ACTIVITY 1

Ask the students to choose the correct words to complete the sentences. All the sentences can be completed with either *because* or *because of*.

Key _____
 1. *because*; 2. *because of*; 3. *because*; 4. *because*;
 5. *because*

ACTIVITY 2

Ask the students to correct the sentences where necessary, using *since* or *as*. One sentence is correct (number 3).

Key _____
 1. *since*; 2. *as*; 3. (*correct*); 4. *as*; 5. *since*

ACTIVITY 3

Ask the students to match the three parts of each sentence (beginning, connecting word / phrase, and end).

Key _____
*Prices of exports have risen greatly **owing to** inflation.*
*Gravity on slopes where rock layers are undercut **triggers off** rock slides.*
*Water shortages give **rise to** a lack of vegetation in desert regions.*
*The Matterhorn in Switzerland is a pyramidal peak formed **due to** plate movement.*
*War, corruption and poverty have **resulted in** difficulties in attracting new industries to Sub-Saharan Africa.*
*Freeze thaw action can **cause** a sea floor to fall or rise suddenly.*

ACTIVITY 4

Ask the students to match the sentence beginnings (1-10) with their appropriate endings (a-j) before circling the correct cause and effect word or phrase.

Key _____
 1. *b – therefore*; 2. *j – thus*; 3. *g – because of this*;
 4. *e – as a result*; 5. *c – thus*; 6. *f – since*; 7. *i – as*;
 8. *d – thereby*; 9. *h – therefore*; 10. *a – since*

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Content focus

Consequences of global warming

WARM-UP

What aspects of life are affected by global warming?

- For one minute, think by yourself about what aspects of life on earth are affected, or might be affected, by global warming
- For two minutes, pair with another student and discuss your ideas
- For two minutes, join with another pair and share your ideas as a four

ACTIVITY 1

Your teacher will give you an envelope containing some words that are aspects of global warming and some descriptions of the consequences.

First, match the aspects to the consequences, then make up some sentences to explain the links to each other.

ACTIVITY 2

Your teacher will give you copy of Global Warming – Consequences. Read it by yourself, then join with your group and use the text to compare the sentences you made up for Activity 1.

ACTIVITY 3

Choose one aspect of your life that is (or could be) affected by global warming.

Research the aspect you have chosen and prepare a presentation for the rest of the class.

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Language focus

Conclusions and findings

ACTIVITY 1

Circle the correct word to complete the sentences.

1. Industrial areas are usually located on the edges of cities *because* / *because of* urban land is expensive.
2. The sea levels rose *because* / *because of* the huge amounts of meltwater going into it.
3. Too much leaching is bad for vegetation *because* / *because of* it can deprive plants of nutrients they need.
4. Drilling for oil is an example of extractive industry *because* / *because of* oil is removed from the earth's crust.
5. Fish are a renewable resource *because* / *because of* they can renew their numbers by breeding.

ACTIVITY 2

Correct these sentences where necessary, using *since* or *as*. One sentence is correct.

1. Owing to the average family size is large, farmland is usually divided among family members.
2. The different layers of the earth's crust were formed therefore the earth cooled; the heavier materials sank and the lighter materials stayed at the surface.
3. As glaciers move, rocks scrape the surface and leave striation marks on the landscape.
4. Due to people become healthier and more secure, the need to have large families is reduced.
5. Some areas suffer from economic isolation, as a result they are located at the opposite side of the country from economically prosperous regions.

ACTIVITY 3

Join the three parts to make correct sentences.

A	B	C
Prices of exports have risen greatly	rise to	plate movement.
Gravity on slopes where rock layers are undercut	resulted in	a sea floor to fall or rise suddenly.
Water shortages give	owing	rock slides.
The Matterhorn in Switzerland is a pyramidal peak formed	cause	a lack of vegetation in desert regions.
Wars, corruption and poverty have	triggers off	to inflation.
Freeze thaw action can	due to	difficulties in attracting new industries to Sub-Saharan Africa.

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ACTIVITY 4

Match the beginnings (1-10) and ends (a-j) of the sentences. Then circle the correct cause and effect word or phrase to join them. The first one is done for you.

- | | |
|--|--|
| 1. Cod is good to eat and <i>then</i> / <u>therefore</u> / <i>thereby</i> ... | a. ... we want to make renewable energy a major source of power. |
| 2. Some regions are isolated in the countryside and <i>as</i> / <i>then</i> / <i>thus</i> ... | b. ... is of high commercial value. |
| 3. Towns and cities are located close to the city and <i>because</i> / <i>because of this</i> / <i>since</i> ... | c. ... demand an educated workforce. |
| 4. War leads to long periods of separation for husbands and wives and, <i>as</i> / <i>as a result</i> / <i>because of</i> ... | d. ... avoiding the problem of too many windmills on land. |
| 5. Quaternary services include the collection, processing and transmission of information and <i>since</i> / <i>then</i> / <i>thus</i> ... | e. ... to a reduction in birth rates. |
| 6. Many female workers had twice the burden of longer hours and less pay <i>as</i> / <i>due to</i> / <i>since</i> ... | f. ... they had to fit their work around their family commitments. |
| 7. Continents push away from each other <i>as</i> / <i>as a result</i> / <i>since</i> ... | g. ... have increased in size, particularly if they have good transport links. |
| 8. Some wind farms are built at sea, <i>because of</i> / <i>thereby</i> / <i>therefore</i> ... | h. ... are more open to more modern methods of healthcare. |
| 9. Women receiving an education are less reliant on traditional remedies for illnesses, and <i>since</i> / <i>thereby</i> / <i>therefore</i> ... | i. ... new rock is created at a mid-ocean ridge forming an ocean floor. |
| 10. We need to reduce environmental pollution from fossil fuels and nuclear power <i>since</i> / <i>thereby</i> / <i>therefore</i> ... | j. ... have benefited less than urban regions in service sector developments. |

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YOUR CLIL CUT-OUT CARDS

Aspects and Consequences

CLIMATE CHANGES	temperatures increase, levels rise, fish populations change
HUMAN HEALTH	areas become unsuitable for habitation, denser populations in certain areas, migration
LANDSCAPES AND SEASONS	some diseases (such as malaria) become more common, demands on health systems
OCEANS AND OCEAN LIFE	extreme conditions, hurricanes
POPULATION SIZES AND MOVEMENTS	glaciers melt, change in snow cover, longer summers/winters
TYPES, LOCATION OF VEGETATION	path of jet streams changes, depressions more intense further south
WEATHER PATTERNS	flooding and drought, pressure on supplies, conservation efforts
WATER	crops grow best under certain conditions, pests and plant disease flourish in certain conditions



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Global Warming – Consequences

There are a number of ways in which we can see now, and might see more often in future, the effects of global warming.

Water will become an issue, as floods and droughts might become more common in some areas. This will increase pressure on supplies of drinking water. However, this could lead to improved efforts to conserve water, as people attempt to save water and use their supply more carefully.

Global warming also affects the water in oceans and the ocean life within them. As temperatures increase, the temperature of the oceans and seas also increases. Warmer seas raise sea levels, as the warmer water expands. The changing conditions bring changes in fish populations and ocean life. Human populations are also affected. Higher temperatures mean some places may become unsuitable for human habitation, leading to an increase in migration and increased populations in habitable areas.

Plants and crops will also change. Certain crops will only grow in specific conditions; as local

conditions change, so will the crops. Related to this is the movement of pests and plant diseases, which also flourish in specific conditions. Rising global temperatures also affect human health. Some diseases, such as malaria, flourish in warmer climates. As the temperature changes, the places where these diseases are found will change. Demands on health systems will thus change, for better or for worse.

The patterns of weather with which we are familiar will change. Some regions are likely to experience more extreme weather conditions, for example experiencing more hurricanes, than they have been used to. Climates around the world will change, as ocean currents and the jet streams alter their courses and strength. Atmospheric depressions could become much more intense further south.

We will also see a marked difference in some landscapes and in the seasons. As glaciers melt and ice clears, landscapes will look very different. The same thing will happen as snow cover changes or disappears. Some parts of the world could see much longer summers or winters than normal.

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Aspect

Chosen aspect of life affected by global warming:

Consequences of global warming

Consequences of global warming for this aspect of life:

Illustrations

Try to find one illustration for each point of your presentation.

This could be an illustration of the aspect of life affected (such as a coral reef for oceans and seas) or an illustration of an effect of global warming (such as a dried-up lake bed).

Language

Use the language of cause and effect carefully. Make sure that your sentences explain the link between global warming, the aspect of life affected and the consequences of global warming for this aspect of life on the planet.

If	x happens	, ___y___ happens / will happen
	x is	, then ___y___ happens / will happen
x (this)	causes	y to be _____-ed
		y to + infinitive verb
	results in leads to triggers creates generates	a (noun phrase) of y a (noun phrase)
		a (noun phrase) a / the (verb + <i>-ing</i>) of y y being / getting _____-ed
		(change in) y

Refer to [Your CLIL: Cause and effect: Geography](#) for more language ideas.

Presentation

Make everyone in the group has something to say. For example, one person could introduce and close the presentation, while the other three discuss one consequence each.