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.
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

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.
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.
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.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prices of exports have risen greatly</td>
<td>rise to</td>
<td>plate movement.</td>
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<td>due to</td>
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</tr>
</tbody>
</table>
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 then / therefore / thereby ...
   a. ... we want to make renewable energy a major source of power.

2. Some regions are isolated in the countryside and as / then / thus ...
   b. ... is of high commercial value.

3. Towns and cities are located close to the city and because / because of this / since ...
   c. ... demand an educated workforce.

4. War leads to long periods of separation for husbands and wives and, as / as a result / because of ...
   d. ... avoiding the problem of too many windmills on land.

5. Quaternary services include the collection, processing and transmission of information and since / then / thus ...
   e. ... to a reduction in birth rates.

6. Many female workers had twice the burden of longer hours and less pay as / due to / since ...
   f. ... they had to fit their work around their family commitments.

7. Continents push away from each other as / as a result / since ...
   g. ... have increased in size, particularly if they have good transport links.

8. Some wind farms are built at sea, because of / thereby / therefore ...
   h. ... are more open to more modern methods of healthcare.

9. Women receiving an education are less reliant on traditional remedies for illnesses, and since / thereby / therefore ...
   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 since / thereby / therefore ...
    j. ... have benefited less than urban regions in service sector developments.
<table>
<thead>
<tr>
<th>Aspects and Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CLIMATE CHANGES</strong></td>
</tr>
<tr>
<td>- temperatures increase, levels rise,</td>
</tr>
<tr>
<td>fish populations change</td>
</tr>
<tr>
<td><strong>HUMAN HEALTH</strong></td>
</tr>
<tr>
<td>- areas become unsuitable for habitation,</td>
</tr>
<tr>
<td>denser populations in certain areas,</td>
</tr>
<tr>
<td>migration</td>
</tr>
<tr>
<td><strong>LANDSCAPES AND SEASONS</strong></td>
</tr>
<tr>
<td>- some diseases (such as malaria) become</td>
</tr>
<tr>
<td>more common, demands on health systems</td>
</tr>
<tr>
<td><strong>OCEANS AND OCEAN LIFE</strong></td>
</tr>
<tr>
<td>- extreme conditions, hurricanes</td>
</tr>
<tr>
<td><strong>POPULATION SIZES AND MOVEMENTS</strong></td>
</tr>
<tr>
<td>- glaciers melt, change in snow cover,</td>
</tr>
<tr>
<td>longer summers/winters</td>
</tr>
<tr>
<td><strong>TYPES, LOCATION OF VEGETATION</strong></td>
</tr>
<tr>
<td>- path of jet streams changes, depressions</td>
</tr>
<tr>
<td>more intense further south</td>
</tr>
<tr>
<td><strong>WEATHER PATTERNS</strong></td>
</tr>
<tr>
<td>- flooding and drought, pressure on</td>
</tr>
<tr>
<td>supplies, conservation efforts</td>
</tr>
<tr>
<td><strong>WATER</strong></td>
</tr>
<tr>
<td>- crops grow best under certain conditions,</td>
</tr>
<tr>
<td>pests and plant disease flourish in</td>
</tr>
<tr>
<td>certain conditions</td>
</tr>
</tbody>
</table>
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.
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.

<table>
<thead>
<tr>
<th>If</th>
<th>x happens</th>
<th>. <strong><strong>y</strong></strong> happens / will happen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>x is</td>
<td>, then <strong><strong>y</strong></strong> happens / will happen</td>
</tr>
<tr>
<td></td>
<td>causes</td>
<td>y to be ________-ed</td>
</tr>
<tr>
<td>x</td>
<td>(this)</td>
<td>y to + infinitive verb</td>
</tr>
<tr>
<td></td>
<td>results in</td>
<td>a (noun phrase) of y</td>
</tr>
<tr>
<td></td>
<td>leads to</td>
<td>a (noun phrase)</td>
</tr>
<tr>
<td></td>
<td>triggers</td>
<td>y being / getting ________-ed</td>
</tr>
<tr>
<td></td>
<td>generates</td>
<td>(change in) y</td>
</tr>
</tbody>
</table>

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.