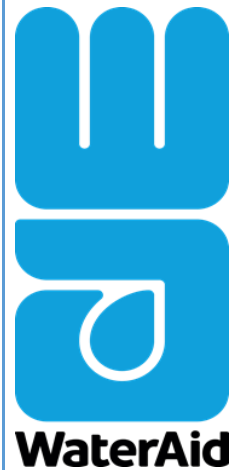


## Secondary School Lesson Plan — Key Stage 4 — (14-16 Years)

### Lesson 4: Impacts of climate change

#### Background:

WaterAid is an international not-for-profit organisation, determined to make clean water, decent toilets and good hygiene normal for everyone, everywhere within a generation. As our climate changes we feel the effects more and more through extreme weather, rising temperatures and ice melting leading to issues around too much or too little water. This makes the climate crisis a water crisis, as hundreds of millions of people across the world struggle to get clean water, pushing them further into disease and poverty.



#### Context:

This is the fourth lesson in a series of six that explain the causes, impacts and ways of managing climate change. This lesson introduces the impacts of climate change and what it will mean for society and the environment.

#### Notes for teachers / educators

The activity timings should act as a guide only. Teachers should adjust timings and adapt activities according to the lesson time available and the ability of the learners.

#### Learning Question:

- What impacts will climate change have on the world?

#### Learning Objectives:

- I can appraise and organise the different impacts of climate change.
- I can construct a chain of impacts of climate change.

#### Key words:

- Climate change • Glacial melt • Biodiversity • Droughts • Flooding • Consequence

**Curriculum link:** The curriculum links are not exhaustive but offer a guide

- **Science:** Earth and atmospheric science; Energy
- **Geography:** Physical geography: processes and change; People and environment: processes and interactions.

#### Resources:

- YouTube Video: Impacts of climate change — [https://youtu.be/ZDzTnt1Y\\_sE](https://youtu.be/ZDzTnt1Y_sE)
- Resource 1 – Lesson Slides
- Resource 2 - Information Pack
- Resource 3 - Impacts worksheet
- Resource 4 - Teacher task guide
- Paper and tape / glue for paper chains

Key Question	Activity	Resource	Timing
Recap	<ul style="list-style-type: none"> <li>• Display slide 1 - Explain that this lesson will help them understand what will happen to our world as a result of climate change and how it will impact our lives.</li> <li>• Ask students if they can recap the ways in which scientists measure climate change. Ask if they can name some of the human activities that are causing climate change.</li> <li>• Display slide 2 - Tell the students that they will be watching a film about the impact of climate change., Ask students to note these as they watch.</li> <li>• After the film, students should share the impacts of climate change that they have noted. Ask if they know of, or can think of, anything else that might happen as a result of the impacts they have heard in the film.</li> </ul>	Resource 1 - Lesson Slides  Film — <a href="https://youtu.be/ZDzTnt1Y_sE">https://youtu.be/ZDzTnt1Y_sE</a>	10 mins
What are the main impacts of climate change?	<ul style="list-style-type: none"> <li>• Slide 3 - Split the class into pairs and give each student a copy of the impacts worksheet. Provide each pair with an information pack. The information sheets can be seen as the hidden slides 4-9 if you wish to display them.</li> <li>• Ask students to read through the information sheets and use the information in the packs to fill in their worksheets. Each impact will need to have a written summary. Ask them to fill out the summary for all of the impacts.</li> <li>• Once they have summarised each impact on their worksheets ask them to rank these using their own judgment according to the severity of each one and the likelihood of it happening.</li> </ul>	Resource 2 - Information pack  Resource 3 - Impacts worksheet	15 mins
What will be the effects of these impacts?	<ul style="list-style-type: none"> <li>• Display slide 9 - Split the class into groups of 4. This task is best done in larger groups for lower ability classes, and smaller groups with higher ability classes.</li> <li>• Explain to the students that they will be making paper chains consisting of linked consequences showing the impact of climate change. The idea is that the chains will give a visual representation of how big an issue climate change is due to all the linked consequences and impacts on the chain. Check that the students are clear of what is meant by the term 'consequences' before they start.</li> <li>• Explain that they should begin with one loop of a paper chain. This link should be a different colour from the rest as it will stand as the centre point. Making it from a piece of A3 is also useful as it will make the loop longer than others. The first loop should be labelled "climate change".</li> </ul>	Paper for paper chain  Tape or glue to stick the links together.  Resource 4 - Teacher task guide	20 mins

Key Question	Activity	Resource	Timing
<p>What will be the effects of these impacts? - continued</p>	<ul style="list-style-type: none"> <li>• From this central loop, link a loop with a larger impact written on it that occurs due to climate change (e.g. “temperature increase”). This is the start of the paper chain.</li> <li>• Link another labelled loop to this with an impact caused by temperature increase (e.g. “increased rainfall”).</li> <li>• Continue this process of linking loops together with connecting consequences of climate change until no more ideas can be generated.</li> <li>• Some impacts may have multiple impacts linked off from them. If you discover an impact with multiple consequences, then it is encouraged to have multiple links span from it.</li> <li>• No impact is too small to be added to the chain, the longer the chain the more visual the impact will be.</li> <li>• If needed display slide 10 with its question prompts to help students develop new ideas.</li> <li>• For an added challenge categorise impact links by colour, with a designated colour for each impact type; environmental, social, economic.</li> </ul>		
<p>How will these effects impact our lives?</p>	<ul style="list-style-type: none"> <li>• Display slide 11 – Ask the students which impact of climate change they think will have the greatest effect on our planet and lives and why? Students should use their knowledge from the lesson and statistics gathered, to support their answers.</li> </ul> <p>They should consider the following:</p> <ul style="list-style-type: none"> <li>- Who will be impacted?</li> <li>- How many people, animals or places will be impacted?</li> <li>- What are the long-term consequences of their impact?</li> </ul> <ul style="list-style-type: none"> <li>• For added challenge students should explain how climate change may impact their own lives.</li> <li>• Survey the students to see which of the impacts they consider to be the greatest.</li> </ul>		5 mins

Key Question	Activity	Resource	Timing
Plenary	<ul style="list-style-type: none"> <li>● Display slide 12 – To summarise their learning ask students to draw a diagram showing a short chain of consequences for one of the impacts of climate change.</li> <li>● Once they've finished, choose some students to talk through their chain of consequence diagrams with the rest of the class.</li> <li>● Ask students if they believe the impacts are mostly social, economic or environmental and which they think are easier to fix from these categories and why. Allow for some debate.</li> <li>● Finish with a discussion on what the class believe the public may feel about climate change from what they may have seen or heard in the media.</li> </ul>		10 mins