

# CLIMATE CHALLENGE (11–14)

## TEACHERS' OVERVIEW

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### Introduction

Climate change is a global threat which is already having an impact on millions of people around the world. These resources focus on the human impact of climate change: how communities around the world are being affected by climate change, and how people are responding and adapting to these challenges.

On a global scale, many farmers are noticing gradual, but significant, changes in temperature and rainfall patterns which make it more difficult to know when best to sow, cultivate and harvest crops. Food prices are rising and food quality is falling. More people are going hungry. For example, in Sub-Saharan Africa, an additional 27% of people are forecast to be at risk of hunger by 2050 due to climate change.<sup>1</sup>

Around the world, disasters such as floods and droughts are increasing in both frequency and intensity. The number of extreme climate-related disasters, including floods, storms, drought and extreme temperatures, has roughly doubled in the last 25 years.<sup>2</sup> In the UK, thousands of lives were disrupted by severe floods in southern England during the winter of 2013–14, the country's wettest

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<sup>1</sup> International Food Policy Research Institute (2019). 2019 Global Food Policy Report. Washington, DC: International Food Policy Research Institute. [doi.org/10.2499/9780896293502](https://doi.org/10.2499/9780896293502)

<sup>2</sup> [www.fao.org/state-of-food-security-nutrition/en/](http://www.fao.org/state-of-food-security-nutrition/en/)

winter for 250 years. The Met Office has said that record rainfall like this is now seven times more likely as a result of human-induced climate change.<sup>3</sup>

Climate change affects everyone. Yet it is the world's poorest and most vulnerable people – those who rely on rain to grow crops, live in poorly built structures in the most exposed (marginal) areas, and lack savings or insurance – who are hit hardest, despite having done the least to cause the problem. Climate change is already forcing people from their land and homes – people in poorer countries are five times more likely to be forced to move by 'sudden-onset' weather disasters than people in richer countries.<sup>4</sup>

Although all poor people are vulnerable to climate change and extreme weather, women are often the most vulnerable because they frequently have a wider burden of responsibilities and are more dependent on natural resources to carry out their tasks. These responsibilities usually include childcare and performing tasks that often rely on the availability of clean water. For example, in Uganda women already walk 6 hours a day to fetch water – as dry seasons become longer, women will be forced to walk further still for water and firewood.<sup>5</sup> Men are often in a stronger position to cope (in other words, are less vulnerable) because of their access to the cash economy and greater decision-making power. Globally, women are 14 times more likely than men to die during a disaster.<sup>6</sup>

Tackling climate change is a vital part of Oxfam's work, especially as it threatens to reverse many of the advances made in tackling poverty over previous decades. We are working around the world to help communities to understand and adapt to the changes they are facing, as well as to become more resilient to all climate shocks. Oxfam is campaigning for governments, especially of wealthy major-emitting nations, both to urgently reduce emissions to zero and to deliver on their climate finance obligations to support vulnerable countries and communities to cope with the impacts of a climate crisis not of their making.

Throughout Climate Challenge there are opportunities for learners to share their learning and raise awareness of the human impact of climate change. They are encouraged to use a wide range of media, such as leaflets, posters, speeches, articles for local newspapers or as news features for radio or television; supporting their development as active global citizens.

### ***Aims of Climate Challenge***

- To support learners' understanding of what climate change is and how human activities are contributing towards this.
- To develop learners' awareness of and empathy for people and communities affected by climate change.
- To develop learners' understanding of what climate change adaptation is and how some communities are adapting to the effects of climate change.
- To consider different actions which individuals, communities and decision makers can take to respond to climate change.

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<sup>3</sup> [www.metoffice.gov.uk/research/climate/understanding-climate/uk-extreme-events-heavy-rainfall-and-floods](http://www.metoffice.gov.uk/research/climate/understanding-climate/uk-extreme-events-heavy-rainfall-and-floods)

<sup>4</sup> <http://oxfamapps.org/media/kgalg>

<sup>5</sup> <https://www.irinnews.org/opinion/2018/12/18/what-do-about-climate-change-ask-women-they-have-most-lose>

<sup>6</sup> [www.unwomen.org/en/what-we-do/economic-empowerment/facts-and-figures](http://www.unwomen.org/en/what-we-do/economic-empowerment/facts-and-figures)

## **Curricular links**

Activities in these resources link to a number of areas of the curriculum including science, English and geography (social studies in Scotland). These materials could also be useful as part of a topic about the environment or to support a whole-school approach to reducing the environmental impact of the school and/or community.

## **Resource structure**

- Six session plans
- Two slideshows

Ideally, learners will complete all six sessions. However, the resources are flexible and structured to enable teachers to create personalised learning journeys for their learners. Teachers may decide to omit some sessions and/or activities depending on the time available and their learners' existing knowledge, understanding and learning needs. It may also be appropriate to spread the activities in some sessions over more than one lesson.

Each session starts with an overview and includes learning objectives, learning outcomes, key questions and curricular links. Suggested activities are provided along with approximate timings. No starters and plenaries are included as it is assumed that teachers will want to plan these individually. However, many of the activities can be adapted for this purpose. Any resource and activity sheets are included in the session plan.

- **Session 1: What is climate change?**

Learners will first explore their existing ideas about climate change. They will then carry out a practical activity to reinforce their understanding of what the greenhouse effect is. Finally, learners will use secondary sources of information to develop their knowledge and understanding about climate change.

- **Session 2: Who is responsible?**

Learners will list some human causes of climate change. They will identify climate change contributors along a supply chain, from field to supermarket. Finally, learners will investigate the carbon footprints of people living in different countries around the world.

- **Session 3: Climate change impacts**

Learners will investigate what is being affected by climate change. They will use a 'consequence wheel' and a 'mystery' to explore our global interconnectedness and think critically about some of the potential impacts of climate change on people and our planet.

- **Session 4: Climate change stories**

Learners will learn that climate change is having an impact on people around the world. They will play a 'Climate change vulnerability game' which emphasises how it is often the most vulnerable communities who are most negatively impacted by climate change, despite contributing the least to it. Learners will then use case studies to investigate in more detail how some communities around the world are being affected by climate change. Finally, they will use role play to empathise with some people whose livelihoods are being threatened by climate change.

- **Session 5: Adapting to climate change**

Learners will investigate how some communities around the world are adapting to the effects of climate change. They will take part in a group activity to consider possible ways in which a community in Bangladesh could adapt to flooding. Learners will then use a case study to explore in more detail how one community in Bangladesh is adapting to the effects of climate change.

- **Session 6: Taking action against climate change**

Learners will explore and discuss different actions which could be taken against climate change. Learners will then identify possible actions which they could take as a school and rank these according to their relative ease and impact. Finally, learners will work in a group to plan their action against climate change.

## **Differentiation**

Where possible the activities and resources are differentiated to meet the needs of different learners in the class. This might also be useful in adapting some of the activities to meet the needs of younger and older learners. Many of the sessions also lend themselves to differentiation by outcome. Some of the suggested activities in the Further ideas may also be useful for extending more able learners.

## **Age group**

These resources are suitable for use with learners aged 11 to 14 years old. Curricular links are provided for the KS3 curriculum in England, and the relevant curricula in Wales and Scotland. However, many of the activities could also be adapted for use with younger or older learners.

## **Important teaching notes**

- These activities and resources are intended to support your teaching rather than guide it. Additional teaching may be required to develop learners' knowledge, skills and understanding of some concepts.
- Suggested timings are provided for each activity. Please note that these timings are approximate only.
- Some of the data in this resource, such as the data from the World Bank and the Global Carbon Atlas, is subject to change. Therefore, you may find that if your learners are finding data from the internet themselves, their figures differ slightly from those published in this resource, which were correct at time of publication.
- All of the web links provided were correct at the time of publication.

## **Useful websites and resources**

- Further information about Oxfam's work on climate change:

[www.oxfam.org.uk/what-we-do/issues-we-work-on/climate-change](http://www.oxfam.org.uk/what-we-do/issues-we-work-on/climate-change)

- The Met Office Climate Guide - Find about climate, climate change and climate science:

[www.metoffice.gov.uk/climate-guide](http://www.metoffice.gov.uk/climate-guide)

- The Intergovernmental Panel on Climate Change (IPCC) - The latest IPCC report is the global go-to source for the latest research on climate change:

[www.ipcc.ch/report](http://www.ipcc.ch/report)

- The Global Carbon Atlas - Explore, visualise and interpret carbon emissions data:

[www.globalcarbonatlas.org](http://www.globalcarbonatlas.org)

- Test learners' knowledge and understanding of climate change and its impacts:

[www.oxfam.org.uk/education/resources/climate-change-quiz](http://www.oxfam.org.uk/education/resources/climate-change-quiz)

- Climate Kids: NASA's Eyes on the Earth - Information, games and activities:

[climatekids.nasa.gov](http://climatekids.nasa.gov)

- Global Dimension website - Explore education resources on climate change from a range of organisations:

[globaldimension.org.uk](http://globaldimension.org.uk)

- Suggested resources from the Geographical Association for investigating climate change:

[www.geography.org.uk/teaching-resources/weather-climate-change/investigating-climate-change](http://www.geography.org.uk/teaching-resources/weather-climate-change/investigating-climate-change)

- Find out more about the action being taken in the UK to campaign against climate change and how individuals and communities can get involved:

- The Climate Coalition: [www.theclimatecoalition.org](http://www.theclimatecoalition.org)
- Stop Climate Chaos Scotland: [www.stopclimatechaos.scot](http://www.stopclimatechaos.scot)
- Stop Climate Chaos Cymru: <http://stopclimatechaos.cymru/>

## Detailed resource outline

Session overview	Learning Objectives	Learning Outcomes	Key Questions	Activities	Resources
<b>Session 1:</b>  <i>What is climate change?</i>	<ul style="list-style-type: none"> <li>To recognise the difference between climate and weather.</li> <li>To know that the Earth's climate is changing and that human activities are contributing towards this change.</li> <li>To understand how the greenhouse effect works and the role of carbon dioxide as a greenhouse gas.</li> </ul>	<ul style="list-style-type: none"> <li>Learners will develop their knowledge and understanding about climate change.</li> <li>Learners will be able to explain the results of an experiment that helps them to understand what the greenhouse effect is.</li> <li>Learners will share their knowledge and understanding about climate change with others.</li> </ul>	<ul style="list-style-type: none"> <li>What do I know about climate change?</li> <li>What is the difference between climate and weather?</li> <li>What is climate change?</li> <li>What is the greenhouse effect?</li> <li>What is the role of carbon dioxide in the greenhouse effect?</li> </ul>	<ul style="list-style-type: none"> <li>Activity 1.1: Climate change board race</li> <li>Activity 1.2: The greenhouse effect in a jar</li> <li>Activity 1.3: What do you understand about climate change?</li> </ul>	<ul style="list-style-type: none"> <li>Climate challenge A slideshow: Slides 2–8</li> <li>Activity sheet 1: The greenhouse effect in a jar</li> </ul>
<b>Session 2:</b>  <i>Who is responsible?</i>	<ul style="list-style-type: none"> <li>To identify some human activities contributing to climate change.</li> <li>To understand what a carbon footprint is.</li> <li>To recognise that everybody in the world has a carbon footprint but some people are responsible for more CO<sub>2</sub> emissions than others.</li> </ul>	<ul style="list-style-type: none"> <li>Learners will list some human activities which are contributing to climate change.</li> <li>Learners will identify and sort some of the processes involved in producing a loaf of bread and getting it to someone's home, and consider which of these processes use fossil fuels.</li> <li>Learners will investigate CO<sub>2</sub> emissions per person in different countries around the world.</li> </ul>	<ul style="list-style-type: none"> <li>What human activities are contributing towards climate change?</li> <li>What processes are involved in producing a loaf of bread?</li> <li>What is a carbon footprint?</li> <li>Who is responsible for climate change?</li> <li>Who are the biggest contributors?</li> </ul>	<ul style="list-style-type: none"> <li>Activity 2.1: What contributes to climate change?</li> <li>Activity 2.2: Food, drink and climate change</li> <li>Activity 2.3: Who is responsible for climate change?</li> <li>Activity 2.4: Investigating the Global Carbon Atlas</li> </ul>	<ul style="list-style-type: none"> <li>Climate challenge A slideshow: Slides 9–16</li> <li>Resource sheet 1: Life history of an aluminium can</li> <li>Activity sheets:               <ol style="list-style-type: none"> <li>The journey of a loaf of bread</li> <li>Who is responsible for climate change?</li> </ol> </li> </ul>

Session overview	Learning Objectives	Learning Outcomes	Key Questions	Activities	Resources
<b>Session 3:</b> <i>Climate change impacts</i>	<ul style="list-style-type: none"> <li>To identify some of the current and potential impacts of climate change on people and our planet.</li> <li>To think critically about the impacts of climate change.</li> <li>To recognise our global interconnectedness and the potential consequences of our collective actions.</li> </ul>	<ul style="list-style-type: none"> <li>Learners will use secondary sources of information to investigate some impacts of climate change.</li> <li>Learners will use a consequence wheel to consider some potential consequences of climate change.</li> <li>Learners will work together to solve a 'mystery' to show how a series of actions collectively can have a significant impact on others.</li> </ul>	<ul style="list-style-type: none"> <li>What is and could be affected by climate change?</li> <li>How is this being affected by climate change?</li> <li>Who is and could be affected by climate change?</li> <li>How can the collective actions of people in one country impact on people in other parts of the world?</li> </ul>	<ul style="list-style-type: none"> <li>Activity 3.1: Climate change impacts</li> <li>Activity 3.2: Climate change consequences</li> </ul>	<ul style="list-style-type: none"> <li>Climate challenge A slideshow: Slides 17–26</li> <li>Resource sheet 1: Climate change impacts</li> <li>Activity sheets: <ol style="list-style-type: none"> <li>Climate change consequences.</li> <li>Why did Runa's stall close down? Mystery cards</li> </ol> </li> </ul>
<b>Session 4:</b> <i>Climate change stories</i>	<ul style="list-style-type: none"> <li>To recognise that everyone is affected by climate change but people living in poverty are the most vulnerable.</li> <li>To describe some ways in which communities around the world are being affected by climate change.</li> <li>To empathise with some of the people who are most at risk from climate change.</li> </ul>	<ul style="list-style-type: none"> <li>Learners will play a 'Climate change vulnerability game' to develop their understanding of how it is often the most vulnerable communities who are most negatively impacted by climate change.</li> <li>Learners will explain in detail how climate change is negatively impacting a community or person.</li> </ul>	<ul style="list-style-type: none"> <li>How are people and communities being affected by climate change?</li> <li>How do I think this makes them feel?</li> </ul>	<ul style="list-style-type: none"> <li>Activity 4.1: Climate change vulnerability game</li> <li>Activity 4.2: Climate change stories</li> </ul>	<ul style="list-style-type: none"> <li>Climate challenge B slideshow: slides 2–7</li> <li>Activity sheet 1: Climate change vulnerability game - Role cards</li> <li>Resource sheets 1–4: Climate change stories</li> </ul>

Session overview	Learning Objectives	Learning Outcomes	Key Questions	Activities	Resources
<b>Session 5:</b> <i>Adapting to climate change</i>	<ul style="list-style-type: none"> <li>To understand what climate change adaptation means.</li> <li>To describe some ways in which communities around the world are adapting to the effects of climate change.</li> </ul>	<ul style="list-style-type: none"> <li>Learners will work with others to consider possible ways in which a community in Bangladesh could adapt to the impacts of flooding.</li> <li>Learners will investigate some approaches that individuals and communities are taking to adapt to the effects of climate change.</li> </ul>	<ul style="list-style-type: none"> <li>What is climate change adaptation?</li> <li>How are people and communities being affected by climate change?</li> <li>What would you do?</li> <li>How are people and communities adapting to the effects of climate change?</li> <li>How is Oxfam helping communities to adapt to the effects of climate change?</li> </ul>	<ul style="list-style-type: none"> <li>Activity 5.1: What would you do?</li> <li>Activity 5.2: Sahena's story</li> </ul>	<ul style="list-style-type: none"> <li>Climate challenge B slideshow: slides 8–24</li> <li>Resource sheets <ol style="list-style-type: none"> <li>Flooding in Bangladesh</li> <li>Sahena's story - Case study</li> </ol> </li> <li>Activity sheets: <ol style="list-style-type: none"> <li>Sahena's story - Prompt cards</li> <li>Sahena's story - Headings</li> </ol> </li> </ul>
<b>Session 6:</b> <i>Taking action against climate change</i>	<ul style="list-style-type: none"> <li>To identify a range of possible actions that could be taken against climate change.</li> <li>To understand that actions will vary according to both the ease with which they can be carried out and the impact they will have.</li> </ul>	<ul style="list-style-type: none"> <li>Learners will list some possible actions that could be taken against climate change.</li> <li>Learners will consider and rank different actions according to their relative ease and impact.</li> </ul>	<ul style="list-style-type: none"> <li>What actions can be taken against climate change?</li> <li>What action can we take?</li> <li>How easy will this action be to do?</li> <li>What impact will this action have?</li> </ul>	<ul style="list-style-type: none"> <li>Activity 6.1: What does taking action against climate change mean?</li> <li>Activity 6.2: Ranking actions against climate change</li> <li>Activity 6.3: Picking an action against climate change</li> <li>Activity 6.4: Planning action against climate change</li> </ul>	<ul style="list-style-type: none"> <li>Climate challenge B slideshow: slides 25–30</li> <li>Activity sheets: <ol style="list-style-type: none"> <li>Sorting actions</li> <li>Ranking actions against climate change</li> <li>Analysing actions</li> <li>Action planning grid</li> </ol> </li> </ul>



## Global citizenship

Climate Challenge is a global citizenship resource written for teachers of 11–14 year olds. Education for global citizenship is a methodology to help young people to develop as active global citizens. Oxfam suggests a Learn-Think-Act approach to help structure global citizenship activities and give young people the opportunity to learn about issues, think critically about how to solve them, and act as responsible global citizens. Actions may simply be to find out more or think more deeply about an issue. They may also involve making others more aware of an issue or engaging in specific fundraising or campaigning activities. For more information, see:

[www.oxfam.org.uk/education/global-citizenship](http://www.oxfam.org.uk/education/global-citizenship)

The key elements of responsible global citizenship are:

Knowledge and understanding	Skills	Values and attitudes
<ul style="list-style-type: none"> <li>• Social justice and equity</li> <li>• Identity and diversity</li> <li>• Globalisation and interdependence</li> <li>• Sustainable development</li> <li>• Peace and conflict</li> <li>• Human rights</li> <li>• Power and governance</li> </ul>	<ul style="list-style-type: none"> <li>• Creative and critical thinking</li> <li>• Empathy</li> <li>• Self-awareness and reflection</li> <li>• Communication</li> <li>• Co-operation and conflict resolution</li> <li>• Ability to manage complexity and uncertainty</li> <li>• Informed and reflective action</li> </ul>	<ul style="list-style-type: none"> <li>• Sense of identity and self-esteem</li> <li>• Commitment to social justice and equity</li> <li>• Respect for people and human rights</li> <li>• Value diversity</li> <li>• Concern for the environment and commitment to sustainable development</li> <li>• Commitment to participation and inclusion</li> <li>• Belief that people can bring about change</li> </ul>

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These materials draw on ideas, content and activities from previous Oxfam education resources on climate change. The previous materials have now been archived and removed from the Oxfam education website. Please do get in touch if you are looking for a specific Oxfam resource and are no longer able to find it: [education@oxfam.org.uk](mailto:education@oxfam.org.uk)

For further information about Oxfam Education, including a wide range of other curriculum-linked resources, see: [www.oxfam.org.uk/education](http://www.oxfam.org.uk/education)

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