



# CONNECTING CLASSROOMS through Global Learning



## How can we increase awareness of the impact of climate change?

Sustainable Development Goals 13 Climate Action and Goal 14 Life Below Water

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## INTRODUCTION

Do you and your students think about the effect that climate change is having on our planet and future?

Extreme weather events such as heat waves, floods, and hurricanes are becoming more common and having devastating effects on communities around the world. The latest warning from the world's leading climate scientists suggest that we have only 12 years for global warming to be kept to a maximum of 1.5 °C.

The 17 United Nation's Sustainable Development Goals aim to achieve a better and more sustainable future for all by achieving 3 things by 2030:

- Ending Extreme poverty
- Fighting inequality and injustice
- Protecting the planet

This theme focuses on the progress being made by young people around the world to raise awareness and take action against climate change and protect marine and coastal ecosystems. It contains challenges that can be adapted to the age and interests of your pupils and completed with your partner school, sharing thoughts, ideas and outcomes on communication technology and social media platforms.

What can we do to make a difference to the Global Goals together?

Even small actions can make a difference.



\*Report from UN Intergovernmental Panel on Climate Change (IPCC) 2019.

**Learning objectives:** To increase awareness of the effect of climate change, carry out an experiment to demonstrate how warmer water causes rises in sea levels and create a media campaign to promote awareness of issues related to climate change.

**Core and transferable skills:** Communication and collaboration, creativity, citizenship and student leadership, digital literacy, problem solving and critical thinking.

**Subjects:** English, Science, Media Studies and Geography.

**Resources:** Access to the internet, projector, materials for science experiment.

## CHALLENGE 1

### Write a speech to draw attention to an impact of climate change

Before teaching this session, it will be useful if students have some understanding of the Sustainable Development Goals and the causes and consequences of climate change. Perhaps as a starter show them the short clip from David Attenborough's recent programme *Climate Change: The Facts* which is available at: <https://www.bbc.co.uk/programmes/p076w7g5>

Alternatively consult some of the scientific documentation in the *Find Out More* section at the end of the resource.

### No one is too small to make a difference

Swedish schoolgirl Greta Thunberg rose to prominence when she decided to miss school every Friday to stand outside the Swedish parliament to protest against lack of action over the climate crisis. This has led to an international movement, in which millions of other children around the world have followed her actions.

Although still at school, Greta has been invited to speak to politicians and business leaders around the world gaining attention in the media and a Nobel Peace prize nomination in 2019.

Effective speeches can explore ideas and change the world and Greta has spoken about climate action and the need to protect the earth in many places including the UN Climate Change conference and the Houses of Parliament.

Eleven of her speeches have now been brought together in a small book called *No One Is Too Small to Make A Difference*.

Help your students to carry out some research on the causes and consequences of climate change and then invite them to write a short speech, which sets out their findings and persuades others to take action.

Persuasive speeches often include techniques such as:

- Repetition.
- The rule of three (repeating something three times for emphasis).
- Questions
- Lists
- Opposites

Share examples of these rhetorical devices and encourage your pupils to use them in their speeches.

Further tips can be found on the World Speech Day website which celebrates speeches and speechmaking. This can be found at: <http://www.worldspeechday.com/>

You could publish your speeches or record or film them and share them with your partner school and perhaps enter the British Council speech writing competition for World Speech Day.

## CHALLENGE 2

### Carry out an experiment to demonstrate how warming water raises sea levels

Scientific evidence suggests that global temperatures are getting warmer and sea levels are rising. As seas and oceans absorb heat from the higher air temperatures, their own temperatures also increase. As the temperature of an ocean or the sea rises, water gradually expands and a change in volume occurs that is proportional to the change in the water's temperature.

This can lead to flooding of low-lying coastal areas; it can also speed up coastal erosion, causing destruction to wildlife habitats. The amount of salt content in the water may also change, This may affect the crops that can be grown in an area and reduce the quantity of available drinking water.

Show your pupils the short film called *How Can We Stay Safe as Sea Levels Rise?* made by The Royal Society as part of the Commonwealth Science Class resources. This can be found at: <https://vimeo.com/191022173>

The film illustrates the impact that rising sea levels are having on the communities of the low-lying islands of Kiribati in the Pacific. Two small Kiribati islets are reported to have already disappeared underwater and the predicted sea level rise suggests that within a century much of the land will be submerged.



In the film, pupils from Rurubao School in Tarawa, Kirabati are carrying out an experiment to illustrate how warming water increases in volume, contributing to a rise in sea levels. This is set out in the Commonwealth Science class resource *Rising Sea Levels: How do we stay safe as sea levels rise*.

Why not carry out the same experiment and compare results with your partner school.

You will need:

- bottle (ideally glass)
- water (warm and cold)
- straw
- sticky tack (e.g. Blu-Tack or plasticine)
- food colouring (to make it easier to see the water in the bottle)
- container larger than the bottle (e.g. an ice cream tub)
- marker pen
- thermometer (optional)
- ruler

Instructions:

1. Fill the bottle with cold water and add food colouring to make it easier to see the water.
2. Put the straw in the bottle and secure it in place with the sticky tack or plasticine. Ensure that a significant amount of the straw is sticking out of the top and that the sticky tack has made the opening of the bottle airtight.
3. Place the bottle inside the larger container.
4. Mark the current position of the water on the straw using the marker pen.
5. Add the warm water to the larger container.
6. Observe the level of water in the straw over five minutes and watch what happens.

The following extension exercise could be an additional activity for older students:

1. Make a mark along your straw at every half cm.
2. Measure the temperature of the water inside the bottle by putting a thermometer in next to the straw.
3. Measure the water level in the straw and the temperature of the water every 10 seconds.
4. Plot a graph of your results.

Share and discuss your results with your partner school. You could take a photo to show how the level of water changes over time or, if available, use time lapse software or stop frame animation to create a short video of the experiment.

### CHALLENGE 3

#### Create a media campaign

The Seychelles is a chain of islands off the east coast of Africa. They are also facing threats from climate change and rising sea levels. These threats include land erosion, loss of fresh water, dying coral reefs and more frequent extreme weather events. To publicise these dangers and urge people to protect the world's oceans, the President of the Islands made a speech in 2019 in a submersible craft 400 feet below the Indian Ocean. In his speech he said, "We just need to do what needs to be done. The scientists have spoken."

Ask your students if they think this is an effective way to raise awareness of issues linked to climate change, rising sea levels and protecting the world's oceans. Can they think of any other creative campaign ideas that could draw attention to these global problems?

Divide students into small groups. Ask them to think of a particular issue relating to the environment that they are concerned about and carry out some research about it. For example they might be interested in reducing the amount of plastic found in the world's oceans. According to the World Wildlife Fund an estimated eight million tons of plastic end up in the sea every year.

Ask them to plan a campaign to draw attention to the issue and advocate for change. They could begin by creating mind maps to explore their ideas and discuss how they might attract attention to their cause.

If they decide on a social media campaign, ask them what their hash tag would be? Once they have decided encourage them to demonstrate their ideas on a large sheet of paper. Display these and share with your partner school.

Older students might also carry out some of the activities that appear in the resource *Radical Reads Strike for Climate Change*. These include:

- Setting up a Climate Crisis Committee (consisting of students, staff, parents and members of the local community) to explore what your school can do to make a difference?
- Talking to schoolmates, families and teachers – telling them why you care about climate change.
- Creating artworks, murals and live events to spread the word.
- Discussing what we can do as individuals to make contributions to prevent climate change in our communities.
- Sharing photos and videos with your partners and on social media, and tagging leaders.



## Find Out More:

Other resources to help you find out more about this subject include:

<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

The British Council/Royal Society resource Rising Sea Levels from Commonwealth Science Class. You can find a full version of the pack at: <https://www.britishcouncil.org/school-resources/find/classroom/rising-sea-levels>

The Commonwealth Oceans pack is designed to improve ocean literacy and bring to life the world of wonder that is our ocean. This can be found at:

<https://www.britishcouncil.org/school-resources/find/classroom/our-commonwealth-ocean>

Further information about Climate Change and how young people are responding can be found at:

<https://www.bbc.co.uk/news/science-environment-24021772>

<https://group.sciencemuseum.org.uk/project/climate-science/>

Other science resources from the Royal Society can be found at the following links:

Climate change: evidence and causes: [www.royalsociety.org/topics-policy/projects/climate-evidence-causes/](http://www.royalsociety.org/topics-policy/projects/climate-evidence-causes/)

Royal Society, Resilience to extreme weather: [www.royalsociety.org/topics-policy/projects/resilience-extreme-weather/](http://www.royalsociety.org/topics-policy/projects/resilience-extreme-weather/)

Resources and activities to develop oracy skills including speeches can be found on the British Council resource *It's Good to Talk* at: <https://www.britishcouncil.org/school-resources/find/classroom/its-good-talk>

Further information about the work of Greta Thunberg can be found in the teacher notes and slides for *Radical Reads: Strike for Climate Change*

Life Under the Sea

### Books:

Greta Thunberg *No One is too Small to Make a Difference*  
Penguin Books

Michael Morpurgo *This Morning I Met a Whale* A work of fiction that explores how children can spread the word about climate change and looking after the planet.



This project was part-funded with UK aid from the British people. The Department for International Development (DFID) leads the UK's work to end extreme poverty. We are tackling the global challenges of our time including poverty, education for all, health, climate change, gender equality and peace and justice. UK aid is helping to build a safer, healthier, more prosperous world.

Connecting Classrooms offers a range of free downloadable classroom resources available to all teachers across the world. These resources, based on the United Nations Global Goals for Sustainable Development, have been designed to adapt to any curriculum. They offer creative and engaging ideas to bring knowledge and core skills to life in the classroom and inspire students to take action on global issues. Find out about our global learning resources designed to address topics which are high on the agenda for governments around the world here: <https://connecting-classrooms.britishcouncil.org/resources/global-learning-resources>

Connecting Classrooms offers free online professional development around core skills and international collaboration, helping teachers and school leaders to prepare young people for life and work in a globalised economy. The programme also supports partnerships between schools around the world with schools in the UK to share knowledge, skills and experience with other teachers. More details on how to find a school partner can be found here: <https://connecting-classrooms.britishcouncil.org/partner-with-schools/find-partner>

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