

Sustainability and climate change

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Resource booklet



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Introduction

AQA have put together this resource to support teachers with teaching the sustainability and climate change elements of the GCSE Combined Science: Trilogy specification .

More and more, teachers are asking for ideas and resources to help teach this important content. Learners are asking to be taught about more than just the causes and effects of climate change. They want to learn about what [solutions](#) are being researched and how they can develop a sense of agency so that they can take action in their own lives.

Sustainability and Climate Change content currently sits across the Combined Science specification, with different aspects being covered in different sciences. Each aspect is usually then taught in the context of that science. This means that the content may be taught in a siloed way so that learners are not always making the necessary connections across the sciences to get a holistic picture of the topic. As a result, despite science being a core subject, not all learners are sure that they have learnt about climate change in science at school.

Linking content

For learners to fully understand sustainability and climate change issues, they need to see how the ideas taught in chemistry, biology and physics are linked. To get learners to appreciate the overarching ideas, the content needs to ideally be taught in an interrelated, holistic way so that they can understand the interplay between the three sciences in the causes of climate change, the solutions being developed and how to work towards a sustainable future.

Feedback from teachers tells us that they are looking for impactful ideas that can easily adapt to pre-existing schemes of work. In this resource we aim to help by explicitly exemplifying the links between the biology and chemistry content in the Trilogy specification. Physics themes (eg energy and EM spectrum) are treated differently as they are seen as fundamental and overarching, and can thus be applied to most of the biology and chemistry specification points listed.

We've written this resource to:

- identify the sustainability and climate change content in the specification
- identify links between biology and chemistry sustainability and climate change content for biology and chemistry teachers
- identify the overarching physics themes that can be linked to the biology and chemistry specification points listed
- suggest a 'big question' to help bring ideas together in lessons
- suggest teaching activities
- suggest online resources if available.

How to use this resource

Use of this resource is entirely optional and supports the Trilogy specification. We've designed the information in this pack for you to use alongside your scheme of work with as much or little adaptation to the scheme as you choose. It is written so that biology and chemistry teachers can see the links to the other sciences and bring that content together into their lessons. Most of the sustainability and climate change content sits in biology and chemistry, so we have suggested teaching activities for these lessons. Energy concepts are fundamental to most chemistry and biology climate change content, so we've provided a list of linking specification points for physics teachers to be able to make the connections for learners in lessons.

The activities and resources described are suggestions only. Some of the resources are aimed at learners and some are for teacher background reading. We have tried to provide something for every specification point that can help generate ideas for lessons.

You can use this resource in a number of ways, depending on the aims of the department. For example:

- An individual teacher could reference and link to the other science subject content in their teaching.
- A department could plan to teach some linked biology and chemistry content simultaneously with cross referencing (see specification map below).
- Teachers could co-plan to develop class and homework activities that draw on the sustainability and climate change content from the three sciences.
- If a department chooses, they could use this resource to help write a scheme of work for a stand-alone sustainability and climate change module.

The specification links are not exhaustive and we've attached a table listing all climate change content as identified by the Royal Meteorological Society.

Specification map

The map below shows the order of the content as it appears in the specification with sustainability and climate change content shaded. This does not necessarily reflect teaching order, but may be useful to indicate where linked content could be taught by two different teachers.

The bold line represents the divide between content assessed in papers 1 and 2.

Biology

4.1 Cell biology	4.2 Organisation	4.3 Infection and response	4.4 Bioenergetics	4.5 Homeostasis and response	4.6 Inheritance, variation and evolution	4.7 Ecology
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Chemistry

5.1 Atomic structure and the periodic table	5.2 Bonding, structure and the properties of the periodic table	5.3 Quantitative Chemistry	5.4 Chemical changes	5.5 Energy changes	5.6 The rate and extent of chemical change	5.7 Organic chemistry	5.8 Chemical analysis	5.9 Chemistry of the atmosphere	5.10 Using resources
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Physics

6.1 Energy	6.2 Electricity	6.3 Particle model of matter	6.4 Atomic structure	6.5 Forces	6.6 Waves	6.7 Magnetism and Electromagnetism
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If you're teaching biology

The table that follows lists biology specification points that contain sustainability and climate change content. Chemistry specification points have then been identified that could be linked to that biology point. The chemistry links listed are not exhaustive, and we have also provided a 'linking or big question' to help show how the content from the two sciences can be brought together in the lesson. The resources we've linked to are third-party sites and are largely articles to help generate teaching ideas, but there are also some student activities.

Main specification areas that include sustainability and climate change content

4.6.2 Variation and evolution

4.6.3.3 Extinction

4.7 Ecology

The sun is a source of energy that passes through ecosystems. Materials including carbon and water are continually recycled by the living world, being released through respiration of animals, plants and decomposing microorganisms and taken up by plants in photosynthesis. All species live in ecosystems composed of complex communities of animals and plants dependent on each other and that are adapted to particular conditions, both abiotic and biotic. These ecosystems provide essential services that support human life and continued development. In order to continue to benefit from these services humans need to engage with the environment in a sustainable way. In this section we will explore how humans are threatening biodiversity as well as the natural systems that support it. We will also consider some actions we need to take to ensure our future health, prosperity and well-being.

Biology spec point	Link to chemistry	Linking/Big question	Activity	Resource
4.6.2.2 Evolution	5.9.2.3 Global climate change	How might global climate change drive evolution of a species?	Research how animals are evolving in response to climate change.	<p>Teacher resources:</p> <p>Animals Are Already Adapting to Climate Change - The Atlantic</p> <p>Here's How Some Species Will Survive Climate Change - Scientific American</p> <p>Shrinking salmon - Understanding Evolution (berkeley.edu)</p> <p>Student resource:</p> <p>Animals 'shapeshifting' to adapt to rising temperatures Natural History Museum (nhm.ac.uk)</p>
4.6.3.3 Extinction	5.9.2.3 Global climate change	How might global climate change result in extinction?	<p>Research plants and animals that are threatened with extinction due to climate change.</p> <p>Discuss available solutions for preventing extinction.</p>	<p>Teacher resources:</p> <p>Climate Change Can Put More Insects at Risk for Extinction – Climate Change: Vital Signs of the Planet (nasa.gov)</p> <p>Emperor penguin colonies abandoned after 'unprecedented' loss of sea ice Natural History Museum (nhm.ac.uk)</p>

Biology spec point	Link to chemistry	Linking/Big question	Activity	Resource
4.7.1.2 Abiotic factors	5.7.1.3 Properties of hydrocarbons 5.9.3.1 Atmospheric pollutants from fuels	What are the abiotic factors that are changing due to climate change?	Watch a video/ show a photo of a specific community. Discuss how changing abiotic factors might affect the community. This could be temperature, CO ₂ / CH ₄ levels, ocean pH, water availability, humidity.	Teacher resources: Sex determination in reptiles, and how in some species this is affected by temperature What causes a sea turtle to be born male or female? (noaa.gov)
4.7.1.4 Adaptations	5.9.2.3 Global climate change	How might global climate change require organisms to adapt or survive?	Read and discuss evidence that corals may be adapting to warming oceans. Research and discuss how other mobile marine organisms may respond to climate change.	Teacher/ student resources: Is nature adapting to climate change? Underwater coral reefs in the Pacific that were predicted to vanish by 2050 show 'historic increase' in climate resistance Daily Mail Online Study: Most marine fish are responding to ocean warming by relocating toward the poles - Responsible Seafood Advocate (globalseafood.org)

Biology spec point	Link to chemistry	Linking/Big question	Activity	Resource
4.7.2.2 How materials are cycled	5.9.1.2 The Earth's early atmosphere 5.9.1.3 How oxygen increased 5.9.1.4 How carbon dioxide decreased	How does burning fossil fuels affect the carbon cycle? How might climate change affect the water cycle? How have different types of living organisms influenced the composition of the atmosphere?	Use the discussion questions about how plants affect the atmosphere Discuss the role of living organisms in changing the composition of the atmosphere. <i>This would be an opportunity to look at data related to the seasonal CO₂ cycle. Or look at precipitation and evaporation maps from data or climate model predictions.</i>	Teacher resources: Sources, Sinks, and Feedbacks (nationalgeographic.org) How Climate Change Impacts Water Access (nationalgeographic.org) Student activity: Consider the impact of climate change on forest ecosystems. BIFoR in a Box Activities : BIFoR Educational Resources (bham.ac.uk)

Biology spec point	Link to chemistry	Linking/Big question	Activity	Resource
4.7.3.1 Biodiversity	5.10.2.2 Ways of reducing the use of resources	How does industry both threaten and work to protect biodiversity?	<p>Choose and read through any company's goals around protecting biodiversity (see examples). Discuss these in the context of the company's main activity.</p> <p><i>Climate is called out here as a factor that affects biodiversity. One possible illustration is the process of tropical forest breakdown, in which the reduction of the continuous footprint of a tropical forest makes it more vulnerable to reduced rainfall, increased evaporation, higher frequency of wildfire, and accelerated reduction in size.</i></p>	<p>Teacher resources:</p> <p>Biodiversity of ecosystems and sustainable development - Iberdrola</p> <p>Biodiversity Sustainability Home (bp.com)</p> <p>Mining without extracting biodiversity - CDP</p> <p>NASA Study Finds Tropical Forests' Ability to Absorb Carbon Dioxide Is Waning – Climate Change: Vital Signs of the Planet</p>

Biology spec point	Link to chemistry	Linking/Big question	Activity	Resource
4.7.3.2 Waste management	<p>5.9.3.1 Atmospheric pollutants from fuels.</p> <p>5.10.2.2 Ways of reducing the use of resources</p> <p>5.10.2.1 Life cycle assessment</p>	<p>How clean is the air in your town?</p> <p>OR</p> <p>How are farming methods changing to reduce use of excess fertilizer?</p> <p>OR</p> <p>How does a life cycle assessment reduce the amount of waste that ends up in the environment?</p>	<p>Look at the Air Quality Index in your area and discuss what affects the air quality. What can be done to improve it in areas where it is poor? If possible, view monitors in your area. Discuss/ debate solutions for air quality LTNs ULEZ etc.</p> <p>Research farming schemes that reduce fertilizer use.</p> <p><i>Discuss how some waste management enhances the greenhouse effect: eg CH₄ from landfill.</i></p>	<p>Teacher resources:</p> <p>IQAir First in Air Quality</p> <p>synthetic nitrogen fertiliser reliance UK farming alternatives environment schemes (soilassociation.org)</p> <p>The science behind the Sustainable Farming Incentive - Farming (blog.gov.uk)</p> <p>Cutting-edge farming projects to get share of £30 million - GOV.UK (www.gov.uk)</p> <p>United Kingdom methane memorandum - GOV.UK (www.gov.uk)</p>

Biology spec point	Link to chemistry	Linking/Big question	Activity	Resource
4.7.3.3 Land use	5.9.2.3 Global climate change 5.10.2.2 Ways of reducing the use of resources	How does using peat alternatives as fertiliser impact climate change? How does using peat alternatives as fertiliser reduce the use of resources?	Discuss the role of peatlands in efforts to combat climate change. Carry out the SAPS bog core analysis to help understand how peat forms.	Teacher resources: Peatlands and climate change - resource IUCN Devastating climate impact of using peat in UK horticulture revealed The Wildlife Trusts Paludiculture – the future of farming on peat soils? - Natural England (blog.gov.uk) Sale of horticultural peat to be banned in move to protect England’s precious peatlands - GOV.UK (www.gov.uk) Student activity: Bog Core Analysis and Climate Change - Science & Plants for Schools (saps.org.uk)

Biology spec point	Link to chemistry	Linking/Big question	Activity	Resource
4.7.3.4 Deforestation	5.9.2.3 Global climate change	We tend to think of a jungle, but does deforestation happen in the UK?	<p>Discuss the reasons for deforestation and how deforestation links to climate change.</p> <p>Discuss the contemporary approach to forestry with climate change and sustainability in mind.</p> <p>Use global forest watch data to analyse and draw conclusions.</p>	<p>Teacher resources:</p> <p>How Deforestation and Climate Change Link - Woodland Trust</p> <p>England's forests: a brief history of trees England holidays The Guardian</p> <p>United Kingdom Deforestation Rates & Statistics GFW (globalforestwatch.org)</p>
4.7.3.5 Global warming	<p>5.9.2 Carbon dioxide and methane as greenhouse gases</p> <p>5.9.3.1 Atmospheric pollutants from fuels</p>	See table below with regards teaching global warming and global climate change.		Biology - Teachers Climate Guide (teachers-climate-guide.fi)

Biology spec point	Link to chemistry	Linking/Big question	Activity	Resource
4.7.3.6 Maintaining biodiversity	5.10.2.2 Ways of reducing the use of resources 5.10.2.1 Life cycle assessment	How can biodiversity be maintained through reducing the use of resources?	Links to 4.7.3.1 Biodiversity. Discuss how our need for resources (eg mining) impacts biodiversity and the opportunities for overcoming biodiversity conservation challenges.	Teacher resource: Mining and biodiversity: key issues and research needs in conservation science Proceedings of the Royal Society B: Biological Sciences (royalsocietypublishing.org)

A note on teaching 4.7.3.5 Global warming and 5.9.2 Carbon dioxide and methane as greenhouse gases

There is some overlap of biology and chemistry topics in the Trilogy specification around global climate change. We suggest that you teach these areas together so that learners can fully appreciate how the greenhouse gasses produced by human activities as described in chemistry are responsible for biological consequences of global warming.

Biology	Chemistry
4.7.3.5 Global warming	5.9.2.1 Greenhouse gases
Students should be able to describe some of the biological consequences of global warming. Levels of carbon dioxide and methane in the atmosphere are increasing, and contribute to ‘global warming’.	Greenhouse gases in the atmosphere maintain temperatures on Earth high enough to support life. Water vapour, carbon dioxide and methane are greenhouse gases. Students should be able to describe the greenhouse effect in terms of the interaction of short and long wavelength radiation with matter.
	5.9.2.2 Human activities which contribute to an increase in greenhouse gases in the atmosphere
	Some human activities increase the amounts of greenhouse gases in the atmosphere. These include: carbon dioxide and methane. Students should be able to recall two human activities that increase the amounts of each of the greenhouse gases carbon dioxide and methane. Based on peer-reviewed evidence, many scientists believe that human activities will cause the temperature of the Earth’s atmosphere to increase at the surface and that this will result in global climate change. However, it is difficult to model such complex systems as global climate change. This leads to simplified models,

	speculation and opinions presented in the media that may be based on only parts of the evidence and which may be biased.
	5.9.2.3 Global climate change
	An increase in average global temperature is a major cause of climate change. There are several potential effects of global climate change. Students should be able to: <ul style="list-style-type: none">• describe briefly four potential effects of global climate change• discuss the scale, risk and environmental implications of global climate change.

If you're teaching chemistry

The table that follows lists chemistry specification points that contain sustainability and climate change content. Biology specification points have then been identified that could be linked to that chemistry point. The biology links listed are not exhaustive, and we have also provided a 'linking or big question' to help show how the content from the two sciences can be brought together in the lesson. The resources we've linked to are third-party sites and are largely articles to help generate teaching ideas, but there are also some student activities.

Specification areas that include sustainability and climate change content

5.9 Chemistry of the atmosphere

The Earth's atmosphere is dynamic and forever changing. The causes of these changes are sometimes man-made and sometimes part of many natural cycles. Scientists use very complex software to predict weather and climate change as there are many variables that can influence this. The problems caused by increased levels of air pollutants require scientists and engineers to develop solutions that help to reduce the impact of human activity.

5.10 Using resources

Industries use the Earth's natural resources to manufacture useful products. In order to operate sustainably, chemists seek to minimise the use of limited resources, use of energy, waste and environmental impact in the manufacture of these products. Chemists also aim to develop ways of disposing of products at the end of their useful life in ways that ensure that materials and stored energy are utilised. Pollution, disposal of waste products and changing land use has a significant effect on the environment, and environmental chemists study how human activity has affected the Earth's natural cycles, and how damaging effects can be minimised.

Chemistry spec point	Link to biology	Linking question	Activity	Resource
5.7.1.3 Properties of hydrocarbons	4.7.3.5 Global warming 4.4.1 Photosynthesis 4.7.1.2 Abiotic factors	What links burning petrol in cars and photosynthesis?	Discuss how combustion of fossil fuels contributes to global warming and the potential role of biofuels as a solution. Possible opportunity for debate (eg Just Stop Oil/Insulate Britain).	Teacher resource: Give context to your teaching of biofuels Ideas RSC Education
5.9.1 The composition and evolution of the Earth's atmosphere	4.4.1 Photosynthesis 4.7.2.2 How materials are cycled	How do plants continue to affect the composition of the atmosphere?	Discuss how plants continue to play a role in levels of atmospheric CO ₂ and levels dissolved in the oceans.	Teacher resources: How Trees Fight Climate Change - Woodland Trust North Yorkshire puts seaweed at the heart of its carbon-negative ambitions Carbon capture and storage (CCS) The Guardian

Chemistry spec point	Link to biology	Linking question	Activity	Resource
				<p>Can growing algae in the desert help undo some of our damage to the climate? Start-up Brilliant Planet thinks so Climate News Sky News</p> <p>Chemistry Now: Atmospheric chemistry Resource RSC Education</p>
5.9.2.1 Greenhouse gases	<p>4.7.3.5 Global warming</p> <p>4.4.1 Photosynthesis</p> <p>4.7.1.2 Abiotic factors</p>	How does an increase in atmospheric CO ₂ affect other abiotic factors?(eg temperature, humidity, ocean pH)	<p>Discuss how increasing CO₂ levels influence other abiotic factors.</p> <p>Exemplify physics links to 6.6.2.2 Properties of electromagnetic waves when describing the greenhouse effect.</p>	<p>Teacher resources:</p> <p>How Carbon Emissions Acidify Our Ocean IAEA</p> <p>Add ocean acidification to your existing lessons Ideas RSC Education</p> <p>Student activity:</p> <p>The greenhouse effect and its consequences - Investigating global warming</p> <p> STEM</p>

Chemistry spec point	Link to biology	Linking question	Activity	Resource
5.9.2.2 Human activities which contribute to an increase in greenhouse gases in the atmosphere	4.4.1 Photosynthesis 4.7.1.2 Abiotic factors 4.7.3.4 Deforestation	How could (named activity) affect levels of greenhouse gases in the atmosphere? (Activity example : deforestation/ agriculture/ land use (eg mining))	Research a human activity that contributes to emissions. What solutions are in place or proposed. Discuss the IPCC report and the implications.	Teacher resources: Agriculture and climate change - GOV.UK (www.gov.uk) Climate change in the critical decade Royal Society

Chemistry spec point	Link to biology	Linking question	Activity	Resource
5.9.2.3 Global climate change	4.6.2.2 Evolution 4.6.3.3 Extinction 4.7.1.4 Adaptations 4.7.3.4 Deforestation 4.7.3.5 Global warming	See table above with regards teaching global warming and global climate change.		Teacher resources: Include the impacts of climate change in your teaching Ideas RSC Education Looking at the data: temperature changes Resource RSC Education Chemistry - Teachers Climate Guide (teachers-climate-guide.fi)
5.9.2.4 The carbon footprint and its reduction	4.4.1 Photosynthesis 4.7.3.4 Deforestation	What does 'offset your carbon footprint' mean?	Complete and activity to learn about how to offset the carbon footprint of a product, service or event.	Teacher resources: carbonfootprint.com - Calculate Grounded: Keeping the carbon beneath our feet Feature RSC Education

Chemistry spec point	Link to biology	Linking question	Activity	Resource
5.9.3 Common atmospheric pollutants and their sources	4.7.1.2 Abiotic factors 4.7.3.2 Waste management	How can poor waste management result in atmospheric pollutants?	In communities without waste management systems, waste is often burned. Discuss the health issues and proposed solutions. Also see activity in 4.7.3.2 Waste management above.	Teacher resources: Give context to air pollution, materials and nanochemistry Ideas RSC Education Open waste burning prevention Climate & Clean Air Coalition (ccacoalition.org)

Chemistry spec point	Link to biology	Linking question	Activity	Resource
5.10.1.1 Using the Earth's resources and sustainable development (i.e. development that meets the needs of current generations without compromising the ability of future generations to meet their own needs)	4.7.3.3 Land use 4.7.3.6 Maintaining biodiversity	Can mining be sustainable?	In the context of a mobile phone or a battery, discuss the minerals required. Research and discuss the strategies that are being developed to make them more sustainable. Also see 4.7.3.6 Maintaining biodiversity above.	Teacher resources: Your mobile phone is powered by precious metals and minerals Natural History Museum (nhm.ac.uk) What Minerals Are In My Phone And Are They Sustainable? giffgaff Your place or mine? The local business of lithium mining Feature RSC Education Alternative student resource: Reciprocal reading task: agriculture and ammonia (rsc.org)

Chemistry spec point	Link to biology	Linking question	Activity	Resource
5.10.1.2 Potable water 5.10.1.3 Waste water treatment	4.7.3.6 Maintaining biodiversity	How does the way we treat waste water affect the biodiversity of rivers?	Discuss how changing rainfall patterns is linked to climate change. Discuss the impact on rivers of not having capacity to treat the waste water. Research incidence and impact of sewage in local river/sea. Possible opportunity for student action.	Teacher resources: Add sustainable management of water to your existing lessons Ideas RSC Education Raw sewage in our rivers The Rivers Trust Tideway Tunnelworks Secondary
5.10.2 Life cycle assessment and recycling	4.7.3.2 Waste management 4.7.3.6 Maintaining biodiversity	Can recycling waste help maintain biodiversity?		Teach your students about sustainable production and consumption Ideas RSC Education Endangered Elements: How Recycling Protects Animals and Humans (cleanriver.com)

Chemistry spec point	Link to biology	Linking question	Activity	Resource
5.10.2.2 Ways of reducing the use of resources	4.7.3.1 Biodiversity 4.7.3.2 Waste management 4.7.3.3 Land use 4.7.3.6 Maintaining biodiversity	What is urban mining how does it link to land use?		Teacher resource The gold jewellery made from old phones - BBC Future

If you're teaching physics

Physics has been treated differently in this recourse because the concept of energy is seen as overarching and fundamental to understanding sustainability and climate change themes. 6.1.3 National and global energy resources underpins the whole of 5.10 using resources, providing extensive opportunities for showing links. Equally, energy and electromagnetic wave concepts are needed to explain global climate change. As such, the physics section shows possible links to both chemistry and biology specification points for teachers to bring into their teaching if they choose.

The table that follows lists physics specification points that contain sustainability and climate change content. Biology and chemistry specification points have then been identified that could be linked to that physics point. The biology and chemistry links listed are not exhaustive, and we have also provided a 'linking or big question' to help show how the content from the two other sciences could be brought together in the lesson. The resources we've linked to are third-party sites and are largely articles to help generate teaching ideas, but there are also some student activities.

Specification areas that include sustainability and climate change content

6.1 Energy

The concept of energy emerged in the 19th century. The idea was used to explain the work output of steam engines and then generalised to understand other heat engines. It also became a key tool for understanding chemical reactions and biological systems. Limits to the use of fossil fuels and global warming are critical problems for this century. Physicists and engineers are working hard to identify ways to reduce our energy usage.

6.6.1.2 Properties of waves

6.6.2 Electromagnetic waves

Physics spec point	Link to biology and chemistry	Linking question	Activity	Resource
6.1.3 National and global energy resources	4.4.1 Photosynthesis 4.7.3.2 Waste management 4.7.3.3 Land use 4.7.3.5 Global warming 5.7.1.3 Properties of hydrocarbons 5.9.2.2 Human activities which contribute to an increase in greenhouse gases in the atmosphere 5.9.2.3 Global climate change 5.9.2.4 The carbon footprint and its reduction 5.10 Using resources	How do different types of energy resources impact global climate change?	Discuss challenges of using and not using fossil fuels.	Student research: Renewable energy and its importance for tackling climate change Natural History Museum (nhm.ac.uk) How old coal mines can help the climate - BBC Future

Physics spec point	Link to biology and chemistry	Linking question	Activity	Resource
6.6.2.1 Types of electromagnetic waves	4.7.3.5 Global warming 5.9.2.3 Global climate change	What wavelengths of the EM spectrum play a role in global warming?	Activity to identify wavelengths involved in global warming	Teacher resource: Physics - Teachers Climate Guide (teachers-climate-guide.fi)
6.6.2.2 Properties of electromagnetic waves 1	4.4.1 Photosynthesis 4.7.3.5 Global warming 5.9.2.3 Global climate change	How are wavelength of EM radiation and heat absorption linked?	Activity to show the atmosphere is transparent to sunlight (visible light and short wavelength IR) and absorbs long wavelength infrared radiation.	Teacher resource: Climate explained: why carbon dioxide has such outsized influence on Earth's climate (theconversation.com) Student resource: The greenhouse effect - The atmosphere - AQA Synergy - GCSE Combined Science Revision - AQA Synergy - BBC Bitesize

Useful links from the presentation

[Sources, Sinks, and Feedbacks \(nationalgeographic.org\)](https://www.nationalgeographic.org)

[How Climate Change Impacts Water Access \(nationalgeographic.org\)](https://www.nationalgeographic.org)

[BIFoR in a Box Activities : BIFoR Educational Resources \(bham.ac.uk\)](https://www.bham.ac.uk)

[carbonfootprint.com - Calculate](https://carbonfootprint.com)

[Grounded: Keeping the carbon beneath our feet | Feature | RSC Education](#)

[Give context to air pollution, materials and nanochemistry | Ideas | RSC Education](#)

[Open waste burning prevention | Climate & Clean Air Coalition \(ccacoalition.org\)](https://ccacoalition.org)

[Renewable energy and its importance for tackling climate change | Natural History Museum \(nhm.ac.uk\)](https://www.nhm.ac.uk)

[How old coal mines can help the climate - BBC Future](#)

[STEM – Climate Change Education Partnership](#)

[RSC – 14 ways to teach sustainability in Chemistry](#)

[IOP – Looking Glass: Climate Solutions](#)

[SAPS – Bog Core Analysis and Climate Change](#)

[MetLink - Royal Meteorological Society Home](#)

[UN Climate Change Conference \(COP28\) - Teaching Resources - BBC Teach](#)

Notes

Contact us

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