



Gŵyl Ymchwil
Newid Hinsawdd

Festival of Research
Climate Change

Welsh Baccalaureate: Guidance

Aberystwyth University Festival of Research 2021
Climate Change

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Introduction

Leading up to the United Nations Climate Change Conference Aberystwyth University is hosting a week-long festival. This will showcase the University's research regarding climate change and focus on key aspects of climate change as well as debating potential solutions.

A website on climate change for this event will be available online at :

<https://wordpress.aber.ac.uk/research-festival/outreach/>

The University has produced this document for students undertaking the Welsh Baccalaureate on how they and schools can incorporate climate change into this qualification. Whether they are doing the A level or GCSE version of this qualification this document is presented in the way that they can pick and choose what they think is relevant to their level.

This Document is split into four main areas. The first is key sources on climate change to start their research, the second is specific ideas and useful sources for the Global Citizenship Challenge, then specific ideas and useful sources for the Enterprise and Employability Challenge, and finally specific ideas and useful sources for the Community Challenge.

All the challenge ideas we have provided for each challenge below align with the most recent Welsh Baccalaureate specification requirements released by WJEC. The specifications can be found here: https://www.wjec.co.uk/qualifications/welsh-baccalaureate-advanced/#tab_overview

And here: https://www.wjec.co.uk/qualifications/welsh-baccalaureate-national-foundation/#tab_overview

1. Key Sources to Start their Research

1. UN Climate Change Conference Glasgow 2021 website: <https://ukcop26.org/>
2. Intergovernmental Panel on Climate Change website : <https://www.ipcc.ch/>
3. Nasa global climate change website: <https://climate.nasa.gov/>
4. Research paper from the international renewable energy agency:
<https://www.irena.org/publications/2021/Aug/Bracing-for-climate-impact-2021>
5. The Royal Society has put together papers on different aspects of climate change solutions and what needs to be done: <https://royalsociety.org/topics-policy/projects/climate-change-science-solutions/>
6. Experts at Aberystwyth University have produced videos on climate change ready for the up and coming festival of research: [Gwyl Ymchwil / Festival of Research \(Fideos/Videos\)](#)
7. Lecturers at Aberystwyth University have created a video series to discuss climate change in their subject areas aimed at A level students. These can be found here under Aberystwyth University & Climate Change: <https://www.aber.ac.uk/en/study-with-us/ug-studies/hub/aberflix/>

Useful Videos to Watch



Ted Talk: Scientist James Hansen tells the story of his involvement in the science of and debate over global climate change.

<https://youtu.be/cmoeTSasrI>



Ted Talk: UK Climate researcher Alice Bows-Larkin talks about how climate change is happening and how we can adapt.

https://youtu.be/fw01_q0cxM8

2. Global Citizenship Challenge Ideas: Global Climate Change

Useful Critical thinking and debate questions:

Should Nuclear Energy be considered more than wind or solar energy?

How should we decarbonise heating?

What approach should we take to agriculture/food given the climate crisis?

Which renewables are best?

Should biofuels (for transport/heating/electricity) be considered more?

How useful are climate clocks? Are they fearmongering or useful?

How much of an impact do climate activists have?

Who is really to blame for climate change?

What's the best way of implementing a circular economy for the UK?

What approach should we take to transport given the climate crisis?



Where does the ultimate responsibility lie with the individual or the government with regard to climate crisis?

Should certain industries with higher impacts on climate change be more heavily restricted?

Should the biggest contributors to emissions face stricter standards, and what penalties should they face for breaking these standards?

Should developing countries expect to do less to combat climate change to make sure they keep developing?

Will climate change effect poorer communities more?

How should we tackle rapid population growth in developing countries?

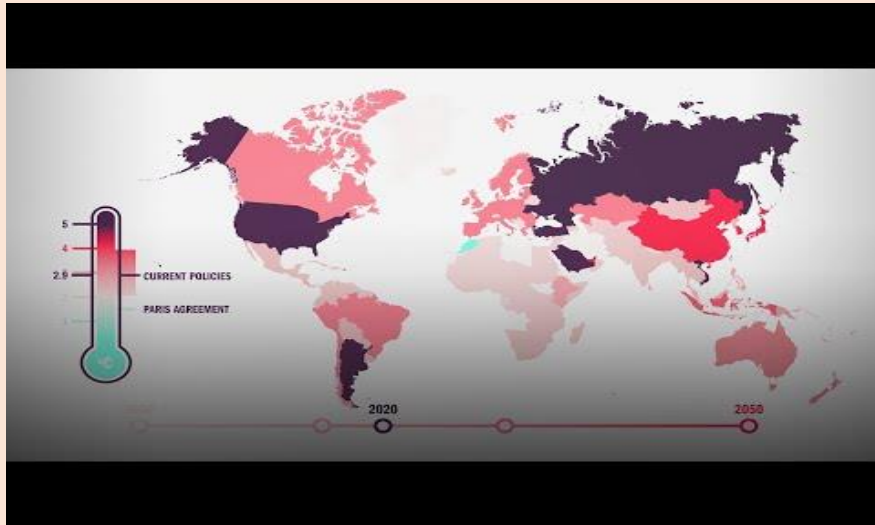
Should we paint cities/houses white and add grass to roofs to cool them down?

Useful Links to information:

Climate Action Tracker:

The Climate Action Tracker is an independent scientific analysis tool that tracks the climate action governments across the world have taken and compares it to the Paris agreement to see if they are on track. The link to the tracker is found here: <https://climateactiontracker.org/>

Ted Talk have also produced on video on the climate action tracker which can be found below: <https://youtu.be/k1oPVp63eNk>



The Intergovernmental Panel on Climate Change have produced a report on the transport sector: https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter8.pdf

The European Environment Agency have produced an article on agriculture and climate change: <https://www.eea.europa.eu/signals/signals-2015/articles/agriculture-and-climate-change>

Below is a Ted Talk on the impact people can have to help climate change:

<https://youtu.be/LRQWXFCaOGs>



3. Enterprise and Employability Challenge Ideas

Produce a climate change solution as a business/product

- Each group come up with different solution/product

How much control should the government have over imposing limits businesses products with regards to climate change?

Include a climate change/ sustainability plan in business plan.

- i.e., how eco-friendly will your company be?
- Will you make your product out of recycled materials?
- Will you have plastic free packaging?
- Will your company plant trees or contribute to action against climate change?
- Will your company be carbon negative or neutral?
- What and how much of an impact could your product/ business make on climate change?
- Are there similar businesses you can compare it to see what impact they have on climate change?

Useful Links to information:

The UN Environmental Programme. Business and Climate Change Adaptation:

https://www.iccr.org/sites/default/files/resources_attachments/businessandclimatechangeadaptation.pdf



Ted Talk: Naomi Swickard, who has worked on sustainable development and climate change issues for over a decade, talks about how large corporations can be more sustainable.

<https://youtu.be/kz82zB1Njww>

Ted Talk: Michael Vanderberg, a leading scholar in environmental and energy law, talks about how companies can help stop global warming.

<https://youtu.be/2bXNcEQ6QX0>



4. Community Challenge Ideas

- Develop or run a climate change initiative
 - Plastic free days
 - Set up eco council etc
 - Environmentally friendly event
- Utilise land to build a sustainable garden
- Plan and set up a climate action project
- Run a climate change after school club
- Run workshops on how to be more eco-friendly in daily life
- Volunteer to support a local renewable energy or conservation project
- Fundraising for climate change charity/ and or initiative
- Help to install renewable energy to homes in developing countries (e.g., solar panels)
- Volunteer to support a renewable energy or conservation project in a developing country

Useful Links to information:

The Climate Museum Online Volunteering opportunities:

https://climatemuseum.org/sign-up-virtual-volunteer?gclid=EAlalQobChMliv_eup7y8gIVmd_tCh1PJgZpEAAAYAiAAEgLMzvD_BwE

Volunteering Abroad: Climate Change Projects:

<https://www.volunteerworld.com/en/volunteer-abroad/climate-change>

Eco-Schools website to find information about how you can build an eco-council:

<https://www.eco-schools.org.uk>

The National Lottery Community fund on how to tackle climate change through community action:

<https://www.tnlcommunityfund.org.uk/news/press-releases/2020-09-17/how-to-tackle-climate-change-through-community-action>

The Climate Generation climate action project toolkit:

<https://www.climategen.org/climate-change-resources/take-action-guide/>



Documents Produced by Aberystwyth University

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