

# Welcome to A-Level Environmental Science

- **What you can read:**

- *Textbook: AQA Environmental Science AS/A level*, Richard Genn, Insight & Perspective - please do not worry about buying this yet unless you are certain you are doing the course
- *National Geographic magazine or website:* [www.nationalgeographic.com](http://www.nationalgeographic.com)
- *Geographical magazine or website* [www.geographical.co.uk](http://www.geographical.co.uk)
- *The Guardian Environmental news:* [www.theguardian.com/uk/environment](http://www.theguardian.com/uk/environment)
- *Subject specific vocabulary for AQA Environmental Science*  
<https://www.aqa.org.uk/resources/science/as-and-a-level/environmental-science/a-level/teach/subject-specific-vocabulary>



- **What you can watch:**

- Any wildlife and conservation documentaries featuring David Attenborough
- Programmes like Springwatch, Autumnwatch and Winterwatch
- BBC Countryfile and ITV Countrywise
- The latest BBC Nature and Environment programmes which can be found here:  
<https://www.bbc.co.uk/programmes/genres/factual/scienceandnature/natureandenvironment/player>

- **What are some of the topics and skills that you will cover:**

Below are some of the topics and skills that we will cover in the first year:

Topics	Breakdown
Conditions for life on Earth	<ul style="list-style-type: none"> <li>- Conditions on the young Earth</li> <li>- Conditions that allowed life to develop</li> <li>- How life changed Earth's conditions</li> </ul>
Conservation of biodiversity	<ul style="list-style-type: none"> <li>- The rationale for wildlife conservation – why are living things important?</li> <li>- Conservation methods for individual species, their habitats and whole ecosystems</li> <li>- Important Earth ecosystems; Tropical rainforest, Coral reefs, Antarctica, Mangrove forest, Broadleaf woodland, Islands, Cold water coral reefs</li> </ul>
Life processes in the biosphere and conservation planning	<ul style="list-style-type: none"> <li>- Populations</li> <li>- Ecological Succession</li> <li>- Nature Reserve design</li> </ul>
The atmosphere	<ul style="list-style-type: none"> <li>- Components and levels of the Earth's atmosphere</li> <li>- Climate change</li> <li>- Ozone depletion</li> </ul>
The hydrosphere	<ul style="list-style-type: none"> <li>- The water cycle - reservoirs and processes</li> <li>- Human impacts on the water cycle</li> </ul>
Mineral resources	<ul style="list-style-type: none"> <li>- The rock cycle</li> </ul>

	<ul style="list-style-type: none"> <li>- Useful mineral deposits and how they formed</li> <li>- Mineral extraction and the impacts on the environment</li> </ul>
Biogeochemical cycles	<ul style="list-style-type: none"> <li>- The Carbon cycle</li> <li>- The Nitrogen cycle</li> <li>- The Phosphorus cycle</li> <li>- How humans impact these natural cycles</li> </ul>
Soils	<ul style="list-style-type: none"> <li>- Constituents of soil</li> <li>- Soil analysis in the laboratory</li> <li>- Soil erosion and loss</li> <li>- Soil conservation</li> </ul>

- **Tasks that you can do to prepare you:**

<b><u>Task</u></b>	<b><u>Link to the course/specification</u></b>
<p style="text-align: center;"><b><u>Task 1</u></b></p> <p>Conditions for life on Earth – Why is there life on earth? What is special about Earth? - Research and produce a mind map with some of the conditions that have allowed complex life to develop on Earth, how do these conditions differ from other planets in our solar system?</p>	3.1.1 Conditions for life on Earth
<p style="text-align: center;"><b><u>Task 2</u></b></p> <p>Protecting Biodiversity - Develop an argument for the protection of all living things. Why are living things important for humans? Why are living things important for the Earth as a whole?</p>	3.1.2.1 The importance of the conservation of biodiversity
<p style="text-align: center;"><b><u>Task 3</u></b></p> <p>Protecting Biodiversity – How can we protect living things? – think of all of the ways that we are conserving individual species or their habitats</p>	3.1.2.3 Methods of conserving biodiversity
<p style="text-align: center;"><b><u>Task 4</u></b></p> <p>Climate change – Climate changes naturally but humans are impacting on Earth’s climate – What is causing climate change? How can we reduce our impact?</p>	3.2.1.2 Global climate change
<p style="text-align: center;"><b><u>Task 5</u></b></p> <p>Hydrological cycle – Produce a poster of the water cycle, where is water? How does water move from one store to another? How are humans affecting the natural cycling of water?</p>	3.2.2 The hydrosphere
<p style="text-align: center;"><b><u>Task 6</u></b></p> <p>Mineral Resources – revisit the rock cycle – draw out the cycle with rock types and processes</p>	3.2.3 Mineral resources
<p style="text-align: center;"><b><u>Task 7</u></b></p> <p>Biogeochemical cycles – revisit the carbon cycle and the nitrogen cycle – you may have covered these in GCSE Science</p>	3.2.4 Biogeochemical cycles

- **Contact information**

If you have questions regarding this or any other A Level course at Burnley College, please contact [alevels@burnley.ac.uk](mailto:alevels@burnley.ac.uk) or call 01282 733373

We look forward to seeing you in September.