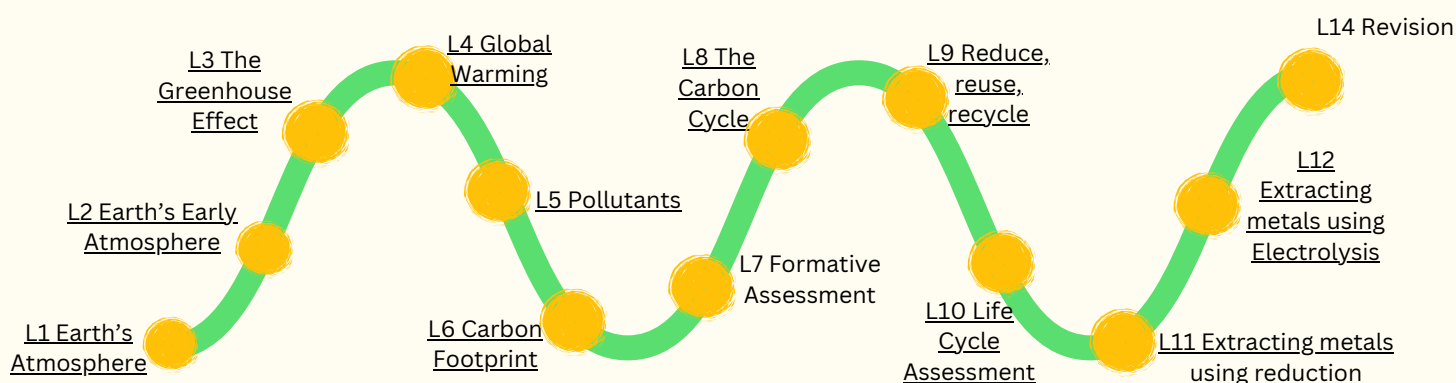


In this unit you will learn:

- The composition and evolution of Earth's atmosphere, and how human activity affects it.
- The carbon cycle and how processes such as respiration, photosynthesis, combustion, and decomposition move carbon between stores.
- What carbon footprints are, how they are measured, and ways to reduce them.
- How humans use natural resources, including methods of extracting metals and the environmental impacts of resource use.



Prior learning link: KS2 Properties and changes of materials, rocks & living things and their habitats.

Key words

- **Atmosphere** – The layer of gases surrounding the Earth.
- **Nitrogen** – The most abundant gas in Earth's atmosphere (about 78%).
- **Oxygen** – A gas making up about 21% of the atmosphere, essential for aerobic respiration.
- **Carbon dioxide** – A greenhouse gas present in small amounts in the atmosphere, produced by respiration and combustion.
- **Greenhouse effect** – The warming of Earth's surface caused by greenhouse gases trapping heat.
- **Carbon cycle** – The movement of carbon between the atmosphere, living things, oceans, and rocks.
- **Carbon footprint** – The total amount of greenhouse gases released by an individual, product, or activity, expressed as carbon dioxide equivalent.
- **Finite resource** – A natural resource that will eventually run out if used faster than it can be replaced.
- **Renewable resource** – A natural resource that can be replaced naturally at the same rate it is used.
- **Ore** – A rock containing enough metal or metal compound to make extraction worthwhile.
- **Reduction** – A chemical reaction that removes oxygen from a compound, often used in metal extraction.
- **Electrolysis** – The use of electricity to break down compounds, such as extracting metals from molten ores.

Revision Resources

[BBC KS3 The Earth and Atmosphere](#)