

## C7 – Atmosphere Core Questions

	Question	Answer
1	What is the approximate proportion of nitrogen in Earth's current atmosphere?	78%
2	What is the approximate proportion of oxygen in Earth's current atmosphere?	21%
3	Which gases exist in small proportion in the Earth's current atmosphere?	Carbon dioxide, water vapour, argon
4	What produced the gases present in Earth's early atmosphere?	Volcanoes
5	What is the approximate age of planet Earth?	About 4.6 billion years
6	Why has the amount of oxygen in the atmosphere increased over time?	Due to plants and algae photosynthesising
7	How has the amount of carbon dioxide changed over time?	Decreased
8	Why has the amount of carbon dioxide decreased over time?	Photosynthesis and it dissolved in the ocean and became locked up
9	How did the world's oceans form?	The Earth's temperature cooled, causing water vapour in the air to condense
10	How did algae and plants reduce levels of carbon dioxide in Earth's early atmosphere?	By photosynthesising
11	How is carbon locked up in rocks?	Small animals used it to make shells, which eventually become sedimentary rock when they die
12	How has the amount of water vapour in the atmosphere changed over time?	Decreased
13	Why has the amount of water vapour in the atmosphere decreased?	It has condensed to form oceans
14	What is the carbon cycle?	Process in which carbon atoms travel from the atmosphere into organisms in the earth and then back into the atmosphere over and over again in a cycle.

15	Give two ways carbon is removed from the atmosphere	Photosynthesis, dissolves in oceans
16	Give two ways carbon is added to the atmosphere	Respiration, combustion of fossil fuels
17	What is the generic word equation for the combustion of fossil fuels	Fuel + oxygen → Carbon dioxide + water
18	What is the greenhouse effect?	When greenhouse gases in the atmosphere trap IR energy, increasing the temperature of Earth
19	Name three greenhouse gases	Water Vapour, Carbon Dioxide and Methane
20	What human activities increase carbon dioxide levels?	Deforestation and burning fossil fuels
21	What is the name given to the increasing average temperature of the Earth?	Global warming
22	Name some effects of climate change	Increased flooding, changes in rainfall patterns, frequency of storms, increased deserts
23	What is the name given to the total amount of carbon dioxide and other greenhouse gases emitted over the full lifecycle of a product, service or event	Carbon footprint
24	What is a carbon sink?	Areas of vegetation, the ocean or soil, which absorb and store carbon
25	What is recycling?	Processing material so that it can be used again
26	What are some disadvantages of recycling?	Requires sorting, money, energy input and can only be done a limited number of times
27	What is a polymer?	A molecule made of thousands of smaller molecules in a repeating pattern.
28	What is a composite?	A combination of two or more materials with different properties