



SC21 Earth and atmospheric science

Personal learning checklist | 1 of 1

GCSE Edexcel Separate Sciences | Chemistry Paper 2

Name _____ Class _____ Date _____

Tick one box for each statement. Red: need help. Amber: partly confident.
Green: can do independently.

I can	Red	Amber	Green
Atmospheric history			
Describe the early atmosphere and evaluate volcanic, rock and planetary evidence with appropriate uncertainty.	☐	☐	☐
Explain ocean formation and reductions in atmospheric carbon dioxide through dissolution and carbon storage.	☐	☐	☐
Explain the gradual rise in free oxygen through photosynthesis, distinguishing bound oxygen from oxygen gas.	☐	☐	☐
Modern air			
Describe dry-air composition, variable water vapour and the oxygen glowing-splint test.	☐	☐	☐
Calculate air oxygen percentage from volume loss, controlling temperature and pressure.	☐	☐	☐
Greenhouse gases and evidence			
Explain the natural and enhanced greenhouse effects through infrared absorption and re-emission.	☐	☐	☐
Link fossil fuels, deforestation, livestock and leaks to greenhouse-gas increases.	☐	☐	☐
Distinguish weather from climate and evaluate warming evidence, correlations, mechanisms and measurement uncertainties.	☐	☐	☐
Interpret greenhouse-gas trends and explain how ice cores preserve evidence about past atmospheres.	☐	☐	☐
Impacts and responses			
Explain sea-level rise and potential effects on flooding, rainfall, farming, habitats and extreme-weather risks.	☐	☐	☐
Distinguish ocean acidification from coral bleaching and explain consequences for marine organisms.	☐	☐	☐
Distinguish mitigation from adaptation and evaluate responses using effectiveness, costs, scale and risks.	☐	☐	☐
Evaluate carbon capture and proposed sunlight reflection without assuming they solve every environmental problem.	☐	☐	☐

My next revision priority _____