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| Chemistry: Environmental chemistry | The Earth & the Atmosphere | I can recall the composition & structure of the Earth |   |
| I can recall the rock cycle & the formation of igneous, sedimentary & metamorphic rocks |   |
| I can recall the composition of the atmosphere |   |
| I can interpret evidence for the theory of the evolution of our atmosphere |   |
| I can describe how it is thought our atmosphere evolved |   |
| Carbon compounds  | I can recall that crude oil is the main source of hydrocarbons & the feedstock for the petrochemical industry |   |
| I can describe & explain the separation of crude oil by fractional distillation |   |
| I can describe fractions as largely a mixture of alkanes & recall the general formula (CnH2n+2) |   |
| I can describe cracking & the formation of more useful materials |   |
| Greenhouse Gases | I can recall what is meant by ‘greenhouse gas’ |   |
| I can describe the greenhouse effect  |   |
| I can evaluate evidence for causes of climate change looking in particular at fossil fuel consumption & CO­2 conc. |   |
| I can describe the potential effects of increased methane & CO­2 levels on Earth’s climate |   |
| Common pollutants and their sources  | I can recall the main air pollutants |   |
| I can describe the major sources of these pollutants |   |
| I can apply sampling techniques |   |
| I can develop questions to answer based on the real world and prior knowledge |   |
| Life cycle assessment & recycling  | I can recall some of the properties and uses of ceramics, polymers & composites |   |
| I can describe the basic principles of carrying out a life cycle assessment (LCA) |   |
| I can interpret data from the LCA of a material or product |   |
| I can describe a process where a material or product is recycled for a different use & explain why this is viable |   |

**9C1 Chemistry of the atmosphere**