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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**