

## Mark scheme March 2004

## GCSE

## Science (Modular) Double Award and Chemistry

## Module 06

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## Earth Materials: Foundation Tier

| Question No. | KEY |
| :---: | :---: |
| One | $\begin{aligned} & 1 \text { - carbon } \\ & 2 \text { - oxygen } \\ & 3 \text { - water (vapour) } \\ & 4 \text { - sulphur } \end{aligned}$ |
| Two | $\begin{aligned} & 1-\text { ammonia } \\ & 2-\text { oxygen } \\ & 3-\text { nitrogen } \\ & 4-\text { noble gases } \end{aligned}$ |
| Three | 1 - compounds <br> 2 - elements <br> 3 - atoms <br> 4 - molecules |
| Four | 1 - fine sandstone with fossils <br> 2 - limestone with fossils <br> 3 - shale with layers <br> 4 - course sandstone with ripple marks |
| Five | 1 - calcium oxide <br> 2 - carbon dioxide <br> 3 - cement <br> 4 - calcium hydroxide |
| Six | most plastics are not broken down by microorganisms poly(propene) is a polymer |
| Seven | decane has the largest molecules ethane and butane are gases at $20^{\circ} \mathrm{C}$ |
| Eight | $8.1-\mathrm{B}, 8.2-\mathrm{A}, 8.3-\mathrm{D}, 8.4-\mathrm{D}$ |
| Nine | 9.1-C, $9.2-\mathrm{D}, ~ 9.3-\mathrm{A}, ~ 9.4-\mathrm{C}$ |
| Ten | $10.1-\mathrm{A}, 10.2-\mathrm{C}, 10.3-\mathrm{B}, 10.4-\mathrm{C}$ |

## Earth Materials: Higher Tier

| $\begin{aligned} & \text { Question } \\ & \text { No. } \\ & \hline \end{aligned}$ | KEY |
| :---: | :---: |
| One | 1 - calcium oxide <br> 2 - carbon dioxide <br> 3 - cement <br> 4 - calcium hydroxide |
| Two | ```1 - calcium carbonate \(\left(\mathrm{CaCO}_{3}\right)\) 2 - carbon dioxide \(\left(\mathrm{CO}_{2}\right)\) 3 - methane \(\left(\mathrm{CH}_{4}\right)\) 4 - calcium hydrogencarbonate \(\left(\mathrm{Ca}\left(\mathrm{HCO}_{3}\right)_{2}\right)\)``` |
| Three | decane has the largest molecules ethane and butane are gases at $20^{\circ} \mathrm{C}$ |
| Four | sediments of the continental plate are folded and metamorphosed volcanoes often occur at the plate boundary |
| Five | $5.1-\mathrm{B}, ~ 5.2-\mathrm{A}, ~ 5.3-\mathrm{D}, ~ 5.4-\mathrm{D}$ |
| Six | $6.1-\mathrm{C}, ~ 6.2-\mathrm{D}, 6.3-\mathrm{A}, 6.4-\mathrm{C}$ |
| Seven | $7.1-\mathrm{A}, 7.2-\mathrm{C}, 7.3-\mathrm{B}, 7.4$ - C |
| Eight | 8.1 - A, 8.2 -C, 8.3 - D, 8.4 - B |
| Nine | $9.1-\mathrm{C}, ~ 9.2-\mathrm{B}, ~ 9.3-\mathrm{A}, ~ 9.4-\mathrm{B}$ |
| Ten | $10.1-\mathrm{B}, 10.2-\mathrm{A}, 10.3,-\mathrm{C}, 10.4-\mathrm{A}$ |

