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| Lesson | Aiming for 4 | | Aiming for 6 | | Aiming for 8 | |
| C10.1 Reactions of the alkenes | I can state a definition of an alkene. |  | I can draw the displayed structural formulae for the first four alkenes. |  | I can predict the word and balanced symbol equations to describe reactions between alkenes and hydrogen, water (steam), or a halogen. |  |
| I can name the first four alkenes. |  | I can draw the displayed structural formulae for the products of the addition reactions between alkenes and hydrogen, water (steam), or a halogen. |  | I can compare and contrast the reactivity of alkanes and alkenes. |  |
| I can state the product of a combustion and an addition reaction of an alkene. |  | I can predict the word and balanced symbol equations for the complete combustion of an alkene when the number of carbon atoms is given. |  | I can predict the general formula of an alkene. |  |
| C10.2 Structures of alcohols, carboxylic acids, and esters | I can recognise the functional group in an alcohol and a carboxylic acid. |  | I can classify an organic compound as an alcohol a carboxylic acid, or an ester. |  | I can predict the structure for primary alcohols or carboxylic acids when the number of carbon atoms is given. |  |
| I can name the first four primary alcohols and the first four carboxylic acids. |  | I can draw the structural and displayed formulae for the first four primary alcohols and the first four carboxylic acids. |  | I can suggest a general formula for a homologous series. |  |
| I can name ethyl ethanoate from its formula. |  | I can draw the structural and displayed formulae for ethyl ethanoate. |  | Can suggest why an organic acid is not an alcohol even though it contains an -OH functional group. |  |

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| Lesson | Aiming for 4 | | Aiming for 6 | | Aiming for 8 | |
| 10.3 Reactions and uses of alcohols | I can state that fermentation can be used to make ethanol. |  | I can describe fermentation to make aqueous solutions of ethanol, including a word equation. |  | I can explain why solutions of ethanol have a pH of 7. |  |
| I can list some chemical properties of the first four alcohols. |  | I can describe the reactions of alcohols, including using word equations. |  | I can describe complete combustion reactions of a range of alcohols using balanced symbol equations. |  |
| I can recognise the formula and structure of ethanol and state some of its uses. |  | I can explain the relationship between ethanol and ethanoic acid. |  | I can plan an investigation to determine the relative energy transferred to the surroundings by the combustion of different alcohols. |  |
| C10.4 Carboxylic acids and esters | I can recognise a carboxylic acid from its name or formula. |  | I can describe why carboxylic acids are acidic. |  | I can explain, using ionic equations, why carboxylic acids are weak acids. |  |
| I can list some chemical properties of carboxylic acids. |  | I can use word equations to describe the reactions of carboxylic acids with metal carbonates and with alcohols. |  | I can predict the products of the reactions of a range of carboxylic acids with metal carbonates and with alcohols. |  |
| I can describe an ester and state some uses of this class of compounds. |  | I can describe how to make an ester. |  | I can explain the term volatile in terms of molecular forces. |  |