SC14a Yields

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| Word | Pronunciation | Meaning |
| **actual yield** |  | The actual amount of product obtained from a chemical reaction. |
| **percentage yield** |  | The actual yield divided by the theoretical yield, as a percentage. |
| **side reactions** |  | A reaction which takes place at the same time as another main reaction. |
| **theoretical yield** |  | The maximum calculated amount of a product that could be formed from a given amount of reactants. |
| **yield** |  | The amount of product formed in a reaction. |

SC14b Atom economy

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| Word | Pronunciation | Meaning |
| **atom economy** |  | The percentage, by mass, of reactants that are converted into useful products. |
| **by-product** |  | Any product formed in a reaction in addition to the required product. |

SC14c Concentrations

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| Word | Pronunciation | Meaning |
| calibrated |  | Marked with a scale for accurate readings. |
| volumetric flask |  | A flask which is accurately calibrated to hold a given volume of solution. |

SC14d Titrations and calculations

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| Word | Pronunciation | Meaning |
| mole ratio |  | The ratio between the amounts, in moles, of substances in a balanced equation. |

SC14e Molar volume of gases

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| Word | Pronunciation | Meaning |
| Avogadro’s law |  | The law that states that, if the temperature and pressure are the same, equal volumes of different gases contain an equal number of molecules. |
| molar gas volume |  | The volume occupied by one mole of molecules of any gas. It is 24 dm3, or 24 000 cm3, at room temperature and pressure. |

SC15a Fertilisers and the Haber process

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| Word | Pronunciation | Meaning |
| batch process |  | A method in which substances are made in separate stages, rather than constantly. |
| continuous process |  | A method in which substances are made constantly. |
| fertiliser |  | Soluble compound added to soil to replace the minerals used up by plants. |
| Haber process |  | A reversible reaction between nitrogen and hydrogen which forms ammonia. |
| nitrogenous | ny-**troj**-en-us | Containing or supplying nitrogen, for example in a fertiliser. |
| reversible reaction |  | A chemical reaction that can work in both directions. |

SC15b Factors affecting equilibrium H

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| Word | Pronunciation | Meaning |
| by-product |  | Substance produced in a chemical reaction in addition to the desired product. |
| closed system |  | System in which no substances may enter or leave, such as a stoppered flask. |
| dynamic equilibrium |  | Situation in which the forward and backward reactions in a reversible reaction continue at the same rate as each other, and the concentrations of all reacting substances do not change. |
| reaction pathway |  | Series of reactions needed to make a particular product. |
| yield |  | Mass of useful product made in a process. |

SC16a Chemical cells and fuel cells

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| Word | Pronunciation | Meaning |
| by-product |  | Substance produced in a chemical reaction in addition to the desired product. |
| chemical cell |  | A device that produces a voltage due to reactions between reactants stored inside it, until one of the reactants is used up. |
| fuel cell |  | A device that produces a voltage due to reactions involving a fuel and oxygen, for as long as these reactants are supplied. |
| greenhouse gas |  | A gas, such as carbon dioxide, water vapour or methane, in the Earth’s atmosphere, which absorbs energy emitted from the Earth’s surface and then emits it back to the surface. |