SC25a Flame tests and photometry

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| Word | Pronunciation | Meaning |
| calibration curve | kal-ib-**ray**-shun | A graph used to determine the concentration of a substance in a sample. |
| cation | **kat**-I-on | A positively charged ion (usually a metal ion) formed by losing electrons. |
| emission spectrum | em-**mish**-un **spek**-trum | The spectrum of light emitted by an atom, ion or molecule. |
| flame photometer | flaym fo-**tom**-et-er | A machine used to identify metal ions in solution and to determine their concentration. |
| spectrum |  | Individual components of light arranged in order of wavelength or frequency. |
| standard solution |  | A solution containing a known concentration of a substance. |

SC25b Tests for positive ions

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| Word | Pronunciation | Meaning |
| confirmatory test |  | A chemical test carried out to check the conclusion from the results of another test. |
| precipitate | pre-**sip**-et-tayt | An insoluble product formed when solutions of two soluble reactants are mixed. |
| precipitation reaction | pre-sip-et-**tay**-shun | A reaction in which an insoluble product is formed from two soluble reactants. |

SC25c Tests for negative ions

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| Word | Pronunciation | Meaning |
| anion |  | A negatively charged ion (usually a non-metal ion) formed by gaining electrons. |
| halide | **hay**-lie’d | A compound consisting of a group 7 element and another element, usually hydrogen or a metal. |
| halide ion | **hay**-lie’d **I**-on | A negatively charged ion formed from one of the group 7 elements. |

SC26a Choosing materials

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| Word | Pronunciation | Meaning |
| alloy | **al**-oi | A metal with one or more other elements (usually metals) added to improve its properties. |
| ceramics | ser-**am**-icks | A range of hard, durable, non-metallic materials, which are generally unaffected by heat, e.g. china and glass. |
| clay ceramics |  | Hard, durable materials, including brick, porcelain and china. |
| glass |  | A solid produced by cooling a molten substance. The atoms are joined to form a giant structure without crystals. |
| malleable | **mal**-ee-uh-buhl | A substance that can be hammered or rolled into shape without shattering. |
| monomer |  | A small molecule that can join with other molecules like itself to form a polymer. |
| opaque | O-**payk** | A material that does not let light through. It is not possible to see through an opaque substance. |
| plasticiser | **plas**-tis-eyes-er | Substance added to a polymer during its manufacture to make the polymer softer and more flexible. |
| polymer |  | A substance made up of very long molecules containing repeating groups of atoms, formed by joining monomer molecules together. |
| transparent |  | A coloured or colourless material that light can travel through without scattering. |

SC26b Composite materials

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| Word | Pronunciation | Meaning |
| composite material |  | A mixture of two or more materials with contrasting properties, combined to produce a material with properties of both. |
| compressive strength |  | A measure of how well a substance resists squashing. |
| matrix | **may**-trix | In a composite material, the substance that binds the reinforcement material together. |
| reinforcement |  | In a composite material, the substance that is bound together by the matrix material. |
| tensile strength | **tens**-I’ll | A measure of how well a substance resists stretching. |

SC26c Nanoparticles

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| Word | Pronunciation | Meaning |
| bulk |  | A substance in the form of lumps or powders is described as being in bulk. |
| nanoparticle |  | Piece of a material consisting of a few hundred atoms, and between 1 nm and 100 nm in size. |
| nanoparticulate |  | A material that consists of nanoparticles. |
| surface area to volume ratio (SA : V) |  | The total surface area of an object divided by its volume. |