

Faculty	Science	KS3 Science
Year	Autumn and Spring A	Spring B and Summer
7	<p data-bbox="259 212 488 236"><u>Introductory Science</u></p> <ul data-bbox="259 280 640 611" style="list-style-type: none"> <li data-bbox="259 280 465 304">• Safety in Science <li data-bbox="259 357 510 381">• Measuring in Science <li data-bbox="259 434 595 458">• Drawing Scientific Apparatus <li data-bbox="259 510 450 534">• Bunsen Burners <li data-bbox="259 587 640 611">• Planning Scientific Investigations <p data-bbox="259 655 483 679"><u>Cells and Movement</u></p> <ul data-bbox="259 724 707 1126" style="list-style-type: none"> <li data-bbox="259 724 495 748">• Using a microscope <li data-bbox="259 801 338 825">• Cells <li data-bbox="259 877 707 901">• Organisation in multicellular organisms <li data-bbox="259 954 517 978">• Unicellular organisms <li data-bbox="259 1031 383 1054">• Diffusion <li data-bbox="259 1107 562 1131">• The skeleton and muscles <p data-bbox="259 1203 427 1227"><u>Particle Model</u></p> <ul data-bbox="259 1272 685 1442" style="list-style-type: none"> <li data-bbox="259 1272 685 1295">• Properties of solids, liquids and gases <li data-bbox="259 1348 360 1372">• Density <li data-bbox="259 1425 439 1449">• Particle model 	<p data-bbox="1108 244 1429 268"><u>Breathing and Reproduction</u></p> <ul data-bbox="1108 312 1547 695" style="list-style-type: none"> <li data-bbox="1108 312 1234 336">• Breathing <li data-bbox="1108 389 1402 413">• Adolescence and Puberty <li data-bbox="1108 466 1547 489">• Male and female reproductive systems <li data-bbox="1108 542 1435 566">• Reproduction and pregnancy <li data-bbox="1108 619 1335 643">• Plant reproduction <li data-bbox="1108 695 1279 719">• Seed dispersal <p data-bbox="1108 767 1339 791"><u>Separating Mixtures</u></p> <ul data-bbox="1108 836 1966 1107" style="list-style-type: none"> <li data-bbox="1108 836 1435 860">• Pure and impure substances <li data-bbox="1108 912 1966 968">• Separation techniques (sieving, magnetism, filtration, evaporation, decanting, separating funnel, distillation, chromatography) <li data-bbox="1108 1011 1245 1035">• Dissolving <li data-bbox="1108 1088 1541 1112">• Melting and boiling points of mixtures <p data-bbox="1108 1176 1487 1200"><u>Energy transfers, work and sound</u></p> <ul data-bbox="1108 1244 1420 1481" style="list-style-type: none"> <li data-bbox="1108 1244 1420 1268">• Energy types and transfers <li data-bbox="1108 1321 1384 1345">• Conservation of energy <li data-bbox="1108 1398 1189 1422">• Fuels <li data-bbox="1108 1474 1249 1498">• Work done

	<ul style="list-style-type: none"> • Expansion and contraction • Gas pressure • Diffusion • Changes of state • Melting and boiling points <p><u>Forces</u></p> <ul style="list-style-type: none"> • Mass and weight • Upthrust • Measuring forces • Balanced and unbalanced forces • Extension of a spring • Friction • Air and water resistance • Streamlining 	<ul style="list-style-type: none"> • Sound (speed of sound, frequency, volume, reflection, absorption, hearing, ultrasound, infrasound)
8	<p><u>Digestion and Respiration</u></p> <ul style="list-style-type: none"> • Balanced diet • Food tests • Digestion • Enzymes 	<p><u>Photosynthesis and interdependence</u></p> <ul style="list-style-type: none"> • Photosynthesis • Leaf structure • Movement of water in plants • Use of minerals in plants and mineral deficiency

	<ul style="list-style-type: none"> • Respiration • Fermentation <p><u>Elements and the periodic table</u></p> <ul style="list-style-type: none"> • Atoms • Elements • The periodic table and Mendeleev • Compounds and mixtures • Oxidation reactions <p>Properties of metals and non-metals</p> <p><u>Magnetism and Pressure</u></p> <ul style="list-style-type: none"> • Magnets • Magnetic fields • Earth's magnetic field • Gravity • Gravitational fields and weight • Static electricity • Pressure in liquids and gases • Floating and sinking 	<ul style="list-style-type: none"> • Chemosynthesis in bacteria • Food chains, food webs and interdependence <p>Bioaccumulation</p> <p><u>Acids and Alkalis</u></p> <ul style="list-style-type: none"> • Acids and alkalis • pH scale and indicators • Reactions of the acids (with base, alkali, metal and carbonate) • Equations and naming salts • Conservation of mass • Comparison of chemical and physical changes <p><u>Circuits and Electromagnets</u></p> <ul style="list-style-type: none"> • Electrical circuits • Series and parallel circuits • Current • Resistance • Voltage • Electromagnets
9	<p><u>Drugs and Disease</u></p> <ul style="list-style-type: none"> • Drugs • Smoking 	<p><u>Genetics</u></p> <ul style="list-style-type: none"> • Variation • Selective breeding

- Alcohol
- Microbes
- Antibiotics

Vaccination

Chemical Reactions of Metals

- Endothermic and exothermic reactions
- Displacement reactions and patterns in reactivity
- Alkali metals
- Reactivity series of metals and extraction of metals

Materials and recycling

Speed and Space

- Speed
- Distance-time graphs
- Relative motion
- Moments
- Equilibrium
- Solar system
- Stars

Galaxies

- Natural selection
- DNA/genes/chromosomes
- Cloning
- Extinction

Earth and the Atmosphere

- Structure of the Earth
- Rocks, rock cycle, weathering
- Thermal decomposition
- Composition of the atmosphere

- Combustion

Carbon cycle

Waves and Energy Transfer

- Waves- in matter and light, reflection and superposition
- The ray model of light - absorption, diffuse scattering, reflection and refraction of light
- Imaging in mirrors, pinhole camera, convex lens in focusing and the human eye
- Colour
- Energy transfer by light
- Fuels and energy resources
- Heat and temperature

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| | | <ul style="list-style-type: none">• Conduction and radiation |
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