

**Great Park Academy Science Curriculum Overview: Year 8**

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
8	<u>1. Working scientifically investigation</u> (a) Safety in science (b) Planning experiments (c) Collecting data (d) Handling data (e) Conclusions (f) Evaluating data  <u>2. Energy 2 (Physics)</u> (a) Recap of energy & conservation of energy (b) Energy & temperature (c) Conduction (d) Convection (e) Radiation (f) Work done (g) Power	<u>3. Health and lifestyle (Biology)</u> (a) Nutrients (b) Food tests (c) Unhealthy diet (d) Digestive system (e) Bacteria & enzymes in digestion (f) Drugs (g) Alcohol (h) Smoking  <u>4. Biological processes (Biology)</u> (a) Photosynthesis (b) Leaves (c) Plant minerals (d) Aerobic respiration (e) Boiling	<u>5. The Periodic Table (Chemistry)</u> (a) The history of the Periodic table (b) The modern Periodic table (c) Metals and non-metals (d) The elements in Group 1 (e) The elements in Group 7 (f) The elements in Group 0  <u>6. Separation techniques (Chemistry)</u> (a) Pure substances (b) Mixtures (c) Solutions (d) Solubility (e) Filtration (f) Evaporation and distillation (g) Chromatography	<u>7. Motion &amp; pressure (Physics)</u> (a) Speed (b) Motion graphs (c) Pressure in gases (d) Pressure in liquids (e) Pressure in solids (f) Turning forces  <u>8. Metals &amp; other materials (Chemistry)</u> (a) Metals & acids (b) Metals & oxygen (c) The reactivity series (d) Metal displacement reactions (e) Extracting metals (f) Ceramics (g) Polymers (h) Composites	<u>9. The Earth (Chemistry)</u> (a) The Earth and its atmosphere (b) Sedimentary rocks (c) Igneous rocks (d) Metamorphic rocks (e) The rock cycle (f) The carbon cycle (g) The greenhouse effect and global heating (h) Recycling  <u>10. Ecosystems &amp; adaptations (Biology)</u> (a) Food chains & webs (b) Disruption to food chains & webs (c) Ecosystems (d) Competition (e) Adapting to change	<u>11. Inheritance (Biology)</u> (a) Variation (b) Continuous and discontinuous (c) Inheritance (d) Natural selection (e) Extinction  <u>12. Electricity &amp; magnetism (Physics)</u> (a) Charge (b) Circuit symbols (c) Current (d) Potential difference (e) Resistance (f) Calculating current, voltage and resistance (g) Series and parallel circuits (h) Magnets and magnetic fields (i) Electromagnets (j) Uses of electromagnets