

| Year 7       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|              | HT1: 6 weeks, 27 lessons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | HT2: 7 weeks, 31 lessons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | HT3: 6 weeks, 27 lessons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | HT4: 5 weeks, 22 lessons                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | HT5: 7 weeks, 31 lessons                                                                                                                                                                                                                                                                                                                                                                                                   | HT6: 7 weeks, 31 lessons                                                                                                                                                                                                                                                                                                                                                                                                       |
| Key Content: | <u>Cells</u> <ol style="list-style-type: none"> <li>Prior Knowledge Review</li> <li>Asking Questions</li> <li>Risks and Hazards</li> <li>Animal Cells</li> <li>Plant Cells</li> <li>Microscopes - practical</li> <li>Maths in science – Decimal and Scales</li> <li>Maths in Science – SI Units</li> <li>Writing Methods</li> <li>Observing Cells - Practical</li> <li>Specialised Cells</li> <li>Organising Cells</li> <li>Assessment cycle</li> <li>Science in the news &amp; careers</li> </ol>         | <b>Assessment feedback</b><br><br><u>Particles</u> <ol style="list-style-type: none"> <li>Prior Knowledge Review</li> <li>States of Matter - Practical</li> <li>The Particle Model</li> <li>Properties of Matter</li> <li>Heating Substances</li> <li>Melting and Freezing</li> <li>Boiling and Condensing</li> <li>Diffusion - Practical (Demo)</li> <li>Variables</li> <li>Investigating Diffusion - RP Practical</li> <li>Gas Pressure</li> <li>Density - Practical</li> <li>Calculating Density</li> <li>Maths in Science - Substitution</li> <li>Assessment cycle x3 lessons</li> <li>Science in the news and careers</li> </ol> | <u>Reproduction</u> <ol style="list-style-type: none"> <li>Prior Knowledge Review</li> <li>Sexual Reproduction</li> <li>Asexual Reproduction</li> <li>Puberty and the Reproductive System</li> <li>The Menstrual Cycle</li> <li>Embryo Development</li> <li>Plant Reproduction - RP Practical</li> <li>Plant Reproduction</li> <li>Seed Dispersal - RP Practical</li> <li>Maths in Science - Data and Results Table</li> <li>Assessment cycle x3 lessons</li> <li>Careers in science</li> </ol>                      | <u>Space</u> <ol style="list-style-type: none"> <li>Prior Knowledge Review</li> <li>Gravity</li> <li>Mass and Weight</li> <li>Keeping in Orbit</li> <li>The Solar System</li> <li>Satellites</li> <li>Seasons</li> <li>Eclipses</li> <li>Maths in Science - Bar Charts, Histograms &amp; Pie Charts</li> <li>Assessment cycle x3 lessons</li> <li>Careers in Science</li> </ol>                                                                                                                        | <u>Mixtures</u> <ol style="list-style-type: none"> <li>Prior Knowledge Review</li> <li>Mixtures</li> <li>Solutions</li> <li>Melting, Boiling Points and Purity</li> <li>Separation of Mixtures</li> <li>Filtration and Crystallisation</li> <li>Fractional Distillation</li> <li>Chromatography</li> <li>Assessment</li> <li>Science in the news</li> </ol>                                                                | <b>Revision</b><br><b>Summative assessment</b><br><br><u>Electric Circuits</u> <ol style="list-style-type: none"> <li>Prior Knowledge Review</li> <li>Models of Electricity</li> <li>Series and Parallel Circuits</li> <li>Current</li> <li>Circuit Components</li> <li>Measuring Current</li> <li>Measuring Voltage</li> <li>Drawing Conclusions</li> <li>Assessment cycle x3 lessons</li> <li>Science in the news</li> </ol> |
|              | <u>Forces</u> <ol style="list-style-type: none"> <li>Prior Knowledge Review</li> <li>Forces - practical</li> <li>Balanced and Unbalanced Forces</li> <li>Accuracy and Precision - practical</li> <li>Resultant Forces</li> <li>Interaction Pairs</li> <li>Springs and Deformation - practical</li> <li>Drag Forces and Friction - practical</li> <li>Investigating Friction - practical</li> <li>Maths in Science - Scales</li> <li>Assessment cycle</li> <li>Science in the news &amp; careers</li> </ol> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <u>Atoms, Elements and Compounds</u> <ol style="list-style-type: none"> <li>Prior Knowledge Review</li> <li>Elements</li> <li>Atoms</li> <li>The Periodic Table<br/><a href="https://zperiod.app/">https://zperiod.app/</a></li> <li>Metals and Non-metals</li> <li>Maths in Science - Mean and Range</li> <li>Reactivity of Metals</li> <li>Compounds</li> <li>Naming Compounds</li> <li>Making Iron Sulfide</li> <li>Chemical Formulae</li> <li>Assessment cycle x3 lessons</li> <li>Careers in science</li> </ol> | <u>Interdependence</u> <ol style="list-style-type: none"> <li>Prior Knowledge Review</li> <li>Ecosystems</li> <li>Representative Sampling</li> <li>Sampling Investigation</li> <li>Maths in Science - Line Graphs</li> <li>Measuring Plant Distribution</li> <li>Measuring Plant Distribution Analysis</li> <li>Food Chains and Food Webs</li> <li>Trophic Levels</li> <li>Biotic and Abiotic Factors</li> <li>Competition</li> <li>Assessment cycle x3 lessons</li> <li>Careers in science</li> </ol> | <u>Energy Transfers</u> <ol style="list-style-type: none"> <li>Prior Knowledge Review</li> <li>Energy</li> <li>Energy Stores</li> <li>Energy Transfers</li> <li>Energy in Food</li> <li>Wasted Energy</li> <li>Efficiency</li> <li>Heat, Temperature and Thermal Energy</li> <li>Temperature and Particles</li> <li>Conductors and Insulators</li> <li>Assessment cycle x3 lessons</li> <li>Science in the news</li> </ol> |                                                                                                                                                                                                                                                                                                                                                                                                                                |
|              | <ol style="list-style-type: none"> <li><b>Revision &amp; summative assessment</b></li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                |

|              | Year 8                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                            |
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|              | HT1: 6 weeks, 27 lessons                                                                                                                                                                                                                                                                                                                                                                                                                     | HT2: 7 weeks, 31 lessons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HT3: 6 weeks, 27 lessons                                                                                                                                                                                                                                                                                                                                    | HT4: 5 weeks, 22 lessons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | HT5: 7 weeks, 31 lessons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | HT6: 7 weeks, 31 lessons                                                                                                                                                                                                                                                                   |
| Key Content: | <u>Tissues and organs</u><br>1. Prior Knowledge Review<br>2. The Skeletal and Muscular Systems<br>3. Investigating Muscle Strength<br>4. The Respiratory System - practical<br>5. The Mechanism of Breathing - practical<br>6. Gas Exchange<br>7. Medicinal Drugs<br>8. Recreational Drugs<br>9. Organ Donation Debate<br>10. Assessment cycle x3 lessons<br>11. Science in the news & careers                                               | <b>Assessment feedback</b><br><u>Respiration and Photosynthesis</u><br>1. Prior Knowledge Review<br>2. Lifestyle Habits and Risks<br>3. Aerobic Respiration<br>4. Anaerobic Respiration<br>5. Exercise and Respiration - Practical<br>6. Investigating Muscle Fatigue<br>7. Uses of Anaerobic Respiration<br>8. Photosynthesis - RP Practical<br>9. Investigating Photosynthesis - Practical<br>10. Investigating Photosynthesis Analysis<br>11. Plant Adaptations<br>12. Non-Photosynthetic Plants<br>13. Biodomes<br>14. Assessment cycle x3 | <u>Life Diversity</u><br>1. Prior Knowledge Review<br>2. Variation<br>3. Inheritance<br>4. Artificial Selection<br>5. Natural Selection<br>6. Evolution<br>7. Human Impact on Natural Selection<br>8. Maths in Science - Fractions<br>9. Maths in Science - Percentages<br>10. Assessment cycle x3 lessons<br>11. Careers in science                        | <u>Earth System</u><br>1. Prior Knowledge Review<br>2. Igneous Rocks<br>3. Sedimentary Rocks<br>4. Metamorphic Rocks<br>5. The Rock Cycle<br>6. The Water Cycle<br>7. Living Things and Material Cycling<br>8. Air Pollution<br>9. Assessment cycle x3 lessons<br>10. Science in the news<br><br><u>Magnetism</u><br>1. Prior Knowledge Review<br>2. Magnetism<br>3. Magnetic Fields<br>4. Electromagnets<br>5. Investigating Electromagnets<br>6. Investigating Electromagnets Analysis<br>7. Earth's Magnetic Field<br>8. Assessment cycle x3 lessons<br>9. Careers in science | <u>Nutrition</u><br>1. Prior Knowledge Review<br>2. Diet and Nutrition<br>3. Food Tests<br>4. Food Samples<br>5. The Digestive System<br>6. The Small Intestine<br>7. Models in the Digestive System<br>8. Enzymes<br>9. Digestive Enzymes<br>10. Investigating Amylase<br>11. Plant Nutrition<br>12. Assessment cycle x3 lessons<br>13. Science in the news<br><br><u>Electric Circuits - Resistance</u><br>1. Prior Knowledge Review<br>2. Resistance<br>3. Maths in Science - Significant Figures<br>4. Ohm's Law<br>5. Maths in Science - Proportionality<br>6. Measuring Resistance<br>7. Resistance in a Wire<br>8. Resistance in Series and Parallel<br>9. Applications of Resistance<br>10. Assessment cycle x3 lessons<br>11. Science in the news | <b>Revision</b><br><b>Summative assessment</b><br><u>Light</u><br>1. Prior Knowledge Review<br>2. Light<br>3. Maths in Science - Angles<br>4. Reflection<br>5. Refraction<br>6. Observing Refraction<br>7. Lenses<br>8. Colour<br>9. Assessment cycle x3 lessons<br>10. Careers in science |
|              | <u>Acids &amp; alkalis</u><br>1. Prior Knowledge Review<br>2. The pH Scale _Practical (demo)<br>3. Indicators<br>4. Indicators Practical - practical<br>5. Neutralisation<br>6. Making Salts - practical<br>7. Writing Methods<br>8. Acids and Metal Carbonates<br>9. Making Salts from Metal Carbonates<br>10. Assessment cycle x3 lessons<br>11. Science in the news & careers<br><br><b>Revision &amp; summative assessment</b><br><br>1. | <u>Movement and Pressure</u><br>1. Prior Knowledge Review<br>2. Maths in Science - Mean, Median and Mode<br>3. Speed<br>4. Changing Speed<br>5. Distance-Time Graphs<br>6. Using Distance-Time Graphs<br>7. Applications of Pressure<br>8. Pressure<br>9. Moments<br>10. Assessment cycle x3 lessons<br>Science in the news & careers                                                                                                                                                                                                          | <u>Changing Substances</u><br>1. Prior Knowledge Review<br>2. Chemical Changes<br>3. Conservation of Mass<br>4. Introduction to Balanced Equations<br>5. Balancing Equations<br>6. Oxidation and Reduction<br>7. Burning Magnesium<br>8. Reactions of Acids<br>9. Testing for Gases<br>10. Assessment cycle x3 lessons<br>11. Science in the news & careers |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                            |

|              | Year 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|              | HT1: 6 weeks, 27 lessons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | HT2: 7 weeks, 31 lessons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HT3: 6 weeks, 27 lessons                                                                                                                                                                                                                                                                                                                                                           | HT4: 5 weeks, 22 lessons                                                                                                                                                                                                                                                                                                                                                 | HT5: 7 weeks, 31 lessons                                                                                                                                                                                                                                                                                                          | HT6: 7 weeks, 31 lessons                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Key Content: | <b>B1 Growth and differentiation</b><br>1. Prior Knowledge Review<br>2. Eukaryotic and Prokaryotic Cells<br>3. Microscopes - RP Practical<br>4. Observing Cells - RP Practical<br>5. Diffusion<br>6. Diffusion in Living Things<br>7. Osmosis<br>8. Osmosis Practical - RP Practical<br>9. Active Transport<br>10. Cell Division<br>11. Cancer<br>12. Stem Cells<br>13. Assessment cycle x3 lessons<br>14. Careers in science                                                                                          | <b>Assessment feedback</b><br><b>P5 Acceleration</b><br>1. Prior Knowledge Review<br>2. Scalars and Vectors - Practical<br>3. Resultant Vectors<br>4. Resolving Vectors - Practical (DEMO)<br>5. Newton's Third Law<br>6. Newton's First Law<br>7. Acceleration<br>8. Acceleration Investigation - Practical<br>9. Velocity-Time Graphs<br>10. Velocity-Time Graphs 2<br>11. Acceleration Problems<br>12. Maths in Science Lesson - Linear Graphs<br>13. Assessment cycle x3 lessons<br>14. Careers in science | <b>B7 Human interaction</b><br>1. Prior Knowledge Review<br>2. Biodiversity<br>3. How Humans Affect Biodiversity<br>4. How Humans can Preserve Biodiversity<br>5. The Effect of Pollution on Biodiversity<br>6. Global Warming<br>7. Assessment cycle x3 lessons<br>8. Science in the news & careers<br>• Triple content                                                           | <b>C10 Using resources</b><br>1. Prior Knowledge Review<br>2. The Reactivity Series<br>3. Using the Reactivity Series<br>4. Treating Water<br>5. Testing Water<br>6. Testing Water Investigation<br>7. Using Materials<br>8. Life Cycle Assessments<br>9. Reduce Reuse Recycle<br>10. Evaluating Impact<br>11. Sources of Information<br>12. Assessment cycle x3 lessons | <b>P6 Sound and Waves</b><br>1. Prior Knowledge Review<br>2. Maths in Science Lesson - Derived<br>3. Types of Wave<br>4. Properties of Waves<br>5. Velocity of Waves<br>6. Reflection and Refraction<br>7. Investigating Reflection and Refraction<br>8. Investigating Waves<br>9. Using Waves<br>10. Assessment cycle x3 lessons | <b>Revision &amp; summative assessment</b><br><b>C2 Structure and Bonding</b><br>1. Prior Knowledge Review<br>2. Ionic Bonding<br>3. Properties of Ionic Substances<br>4. Covalent Bonding<br>5. Properties of Covalent Substances<br>6. Diamond<br>7. Graphite<br>8. Graphene, Fullerenes and Nanotubes<br>9. Polymers<br>10. Metallic Bonding<br>11. Alloys<br>12. Bonding Review<br>13. Evaluating Bonding Models<br>14. Assessment cycle x3 lessons |
|              | <b>C1 The Periodic Table</b><br>1. Prior Knowledge Review<br>2. Atoms<br>3. Electronic Configuration<br>4. Isotopes<br>5. Understanding the Atom<br>6. The Periodic Table<br><a href="https://zperiod.app/">https://zperiod.app/</a><br>7. The Noble Gases<br>8. The Alkali Metals - RP Practical (DEMO)<br>9. The Halogens<br>10. Reactions of the Halogens<br>11. Maths in Science Lesson - Standard Form<br>12. Maths in Science Lesson - Order of Mag<br>13. Assessment cycle x3 lessons<br>14. Careers in science | <b>C3 Introduction to Quantitative Chemistry</b><br>1. Prior Knowledge Review<br>2. Relative Formula Mass<br>3. Percentage by Mass<br>4. Conservation of Mass - Practical (DEMO)<br>5. Balancing Equations<br>6. Uncertainty<br>7. Introducing Concentration<br>8. Concentration Calculations<br>9. Soluble Salts<br>10. Making Soluble Salts - RP Practical<br>11. Making Soluble Salts 2<br>12. Assessment cycle x3 lessons<br>1. Careers in science                                                         | <b>B5 Genetics</b><br>1. Prior Knowledge Review<br>2. Maths in Science Lesson - Probability<br>3. The Cell Cycle<br>4. Meiosis<br>5. Evaluating Types of Reproduction<br>6. DNA, Proteins and the Environment<br>7. Genes and Alleles<br>8. Punnett Squares<br>9. Inherited Disorders<br>10. Sex Determination<br>11. Assessment cycle x3 lessons<br>Science in the news & careers | <b>P3 Heating</b><br>1. Prior Knowledge Review<br>2. Maths in Science Lesson - Using Equations<br>3. Internal Energy<br>4. Thermal Transfers<br>5. Thermal Transfers 2<br>6. Specific Heat Capacity<br>7. Specific Heat Capacity Investigation<br>8. Specific Latent Heat<br>9. Assessment cycle x3 lessons<br>1. Careers in science                                     | <b>P2 Home electricity</b><br>1. Prior Knowledge Review<br>2. Mains Electricity<br>3. Plugs<br>4. Power<br>5. Cost Of Electricity<br>6. Power in Circuits<br>7. Power and Energy in Appliances<br>8. Energy Resources<br>9. The National Grid<br>10. Static Electricity<br>Assessment cycle x3 lessons                            | <b>P3 Matter</b><br>1. Prior Knowledge Review<br>2. Density<br>3. Measuring Density<br>4. Gas Pressure<br>5. Taking it Further – Pressure<br>6. Taking it Further – Pressure in Fluids<br>7. Assessment cycle x3 lessons<br>8. Science in the new                                                                                                                                                                                                       |
|              | 1. <b>Revision and summative assessment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

|                     | Year 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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|                     | HT1: 6 weeks, 30 lessons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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35 lessons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | HT6: 7 weeks, 35 lessons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Key Content:</b> | <b>C4 Extraction of metals</b><br>1. Prior Knowledge Review - Metals<br>2. Extracting Less Reactive Metals - RP Practical<br>3. Prior Knowledge Review Ions, Ionic Bonding and Deducing Ionic Formulae<br>4. (HT) Ionic Equations and Displacement Reactions - practical<br>5. (HT) Writing Half Equations<br>6. (HT) Ionic Equations for the Reactions of Acids and Metals<br>7. Introduction to Electrolysis<br>8. Extracting Metals by Electrolysis<br>9. Electrolysis of Molten Ionic Compounds<br>10. Electrolysis in Solutions<br>11. Required Practical Electrolysis of Aqueous Solutions - RP Practical<br>12. Taking it Further – Corrosion and its Prevention<br>13. (HT) Obtaining Raw Materials<br>14. Recycling Metals<br>15. Assessment cycle x3 lessons<br><br><b>B2 The Digestive System</b><br>1. Prior Knowledge Review<br>2. Digestive System<br>3. Mechanical and Chemical Digestion<br>4. Absorption in the Small Intestine<br>5. Balanced Diet and Food Tests<br>6. Food Tests and Analysis<br>7. Models of Enzyme Activity<br>8. Digestive Enzymes<br>9. Effect of Temperature<br>10. Effect of pH<br>11. RP The Effect of pH on Amylase<br>12. RP The Effect of pH on Amylase Analysis<br>Assessment cycle x3 lessons | <b>P3 Heating</b><br>1. Prior Knowledge Review<br>2. Maths in Science Lesson - Using Equations<br>3. Internal Energy<br>4. Thermal Transfers<br>5. Thermal Transfers 2<br>6. Specific Heat Capacity<br>7. Specific Heat Capacity Investigation<br>8. Specific Latent Heat<br>9. Assessment cycle x3 lessons<br>10. Careers in science<br><br><b>P3 Matter</b><br>1. Prior Knowledge Review<br>2. Density<br>3. Measuring Density<br>4. Gas Pressure<br>5. Assessment cycle x3 lessons<br>6. Science in the news<br><br><b>B2 Circulation and Respiration</b><br>1. Prior Knowledge Review<br>2. The Structure of the Lungs<br>3. The Heart and Circulatory System<br>4. Heart Dissection - RP Practical<br>5. Blood Vessels<br>6. Blood<br>7. Coronary Heart Disease<br>8. Evaluating Methods of Treating Heart Disease<br>9. Aerobic Respiration<br>10. Anaerobic Respiration<br>11. Response to Exercise<br>12. Metabolism<br>Assessment cycle x3 lessons | <b>C3 Concentration</b><br>1. Prior Knowledge Review<br>2. Introducing Concentration<br>3. Concentration Calculations<br>4. Soluble Salts<br>5. Making Soluble Salts - RP Practical<br>6. Making Soluble Salts 2<br><br><b>C3 Quantitative Chemistry</b><br>1. Prior Knowledge Review - Formula<br>2. (HT) Introducing the Mole<br>3. (HT) Mole Calculations<br>4. Prior Knowledge Review - Concentration<br>5. (HT) Amount of Substances in Equations<br>6. (HT) Limiting Reactants<br>7. Prior Knowledge Review - Acid Reactions<br>8. Neutralisation - Practical<br>9. (HT) Strong and Weak Acids<br>10. Assessment cycle x3 lessons<br>11. Science in the news<br><br><b>B3 Health and Disease</b><br>1. Prior Knowledge Review<br>2. Staying Healthy<br>3. Epidemiology<br>4. Risk Factors - Smoking, Diet and Obesity<br>5. Risk Factors - Alcohol<br>6. Communicable Diseases<br>7. Types of Communicable Disease<br>8. Preventing the Spread<br>9. Human Defence Systems<br>10. Immune Response<br>11. Vaccination<br>12. Antibiotics<br>13. Antibiotic Resistance<br>14. Development of Drugs<br>Assessment cycle x3 lesson | <b>P2 Home electricity</b><br>1. Prior Knowledge Review<br>2. Mains Electricity<br>3. Plugs<br>4. Power<br>5. Cost Of Electricity<br>6. Power in Circuits<br>7. Power and Energy in Appliances<br>8. Energy Resources<br>9. The National Grid<br>10. Static Electricity<br>11. Assessment cycle x3 lessons<br><br><b>P2 Electric Circuits</b><br>1. Prior Knowledge Review<br>2. Ohm's Law and Resistance<br>3. Investigating Resistance of a Wire<br>4. Resistance of a Wire Analysis<br>5. Investigating Resistance of Components<br>6. Resistance in Components<br>7. Electrical Power<br>8. Energy Transfer in Circuits<br>9. Circuit Applications<br>10. Assessment cycle - x3 lessons<br>11. Science in the news<br><br><b>Revision and summative assessment</b> | <b>B7 Plants and Material Cycling</b><br>1. Prior Knowledge Review - Leaf and Roots<br>2. Microscopes - Investigating Stomatal Density - Practical<br>3. Transpiration - Practical (DEMO)<br>4. Translocation<br>5. Photosynthesis and Uses of Glucose<br>6. Limiting Factors in Photosynthesis<br>7. Maths in Science Lesson - Using Graphs<br>8. Maths in Science Lesson - (HT) Inverse-Square Law<br>9. The Effect of Light Intensity on Photosynthesis - RP Practical<br>10. RP Practical continued<br>11. Material Cycling - Decay<br>12. Material Cycling - The Carbon Cycle<br>13. Material Cycling - The Water Cycle<br>14. Assessment cycle x3 lessons<br><br><b>P4 Radioactivity</b><br>1. Prior Knowledge Review<br>2. Atomic Theory<br>3. Activity and Types of Radiation<br>4. Nuclear Equations<br>5. Half Life<br>6. Uses of Radioactivity and Safety<br>7. Assessment cycle x3 lessons<br><br><b>C5 Energy Changes</b><br>1. Prior Knowledge Review<br>2. Exothermic and Endothermic Reactions<br>3. Energy in Chemical Reactions<br>4. (HT) Bond Energy<br>5. 5 & 6. Investigating Temperature Change - RP<br>6. Assessment cycle x3 lessons<br>7. Science in the news<br><br><b>Year 10 work experience</b> | <b>Revision and summative assessment</b><br><br><b>B7 Human interaction</b><br>1. Prior Knowledge Review<br>2. Biodiversity<br>3. How Humans Affect Biodiversity<br>4. How Humans can Preserve Biodiversity<br>5. The Effect of Pollution on Biodiversity<br>6. Global Warming<br>7. Assessment cycle x3 lessons<br>8. Science in the news & careers<br><br><b>B7 Ecology</b><br>1. Prior Knowledge Review<br>2. Organisation of an Ecosystem<br>3. Biotic and Abiotic Factors<br>4. Adaptations<br>5. Food Chains and Food Webs<br>6. Predator-Prey Relationships<br>7. 7 & 8. Investigating Species Distribution<br>8. Maths in Science - Estimating Population<br>9. Assessment cycle x3 lessons |

| Year 11      |                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|              | HT1: 6 weeks, 30 lessons<br>6 revision lessons + 25 lessons                                                                                                                                                                                                                                                                                                                                                | HT2: 7 weeks, 35 lessons<br>3 weeks revision & mocks<br>4 revision lessons + 20 lessons                                                                                                                                                                                                                                                                                                                                                                                                                              | HT3: 6 weeks, 30 lessons                                                                                                                                                                                                                                                                                                                                                                                     | HT4: 5 weeks, 25 lessons                                                                                                                                                                                                                                                                                                                                                                                             | HT5: 7 weeks, 35 lessons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| Key Content: | <u>B5 Feedback and control</u><br>1. Prior Knowledge Review<br>2. Homeostasis<br>3. Structure of the Nervous System<br>4. The Reflex Arc<br>5. Synapses<br>6. Investigating Human Reaction Time<br>7. Control of Blood Glucose<br>8. Prior knowledge review - Blood Glucose and Osmosis<br>9. Diabetes<br>10. Treating Diabetes<br>11. (HT) Negative Feedback Thyroxine adrenaline<br>12. Assessment cycle | <u>x1 week revision</u><br><u>x2 weeks November mocks</u><br><u>B6 Controlling reproduction</u><br>1. Prior Knowledge Review Sexual and Asexual Reproduction<br>2. Prior Knowledge Review Mitosis and Meiosis<br>3. Prior Knowledge Review Sex Determination<br>4. Hormones in Human Reproduction<br>5. (HT) Hormonal Control of the Menstrual Cycle<br>6. Contraception<br>7. Evaluating Methods of Contraception<br>8. (HT) Fertility Treatment<br>9. (HT) Evaluating the Use of IVF<br>10. Assessment cycle       | <u>P6 Electromagnetic Radiation</u><br>1. Prior Knowledge Review Properties of Waves<br>2. Prior Knowledge Review Observing Waves<br>3. The Electromagnetic Spectrum<br>4. Uses of the EM Spectrum<br>5. 5 & 6. Investigating Infrared Radiation - RP<br>6. <del>Assessment cycle</del>                                                                                                                      | <u>Revise</u><br><u>x2 weeks March mocks</u><br><u>P7 Force Fields</u><br>1. Prior Knowledge Review<br>2. Magnetism and Induced Magnetism<br>3. Earth's Magnetic Field<br>4. Electromagnets<br>5. Building Electromagnets (HT) Fleming's Left Hand Rule<br>6. (HT) The Motor Effect<br>7. <del>Assessment cycle</del><br>8. <del>Assessment cycle</del>                                                              | <b>Interleaved practice and application to different contexts</b><br><br>Address gaps in knowledge and build on links between different topics when applied to a range of scenarios<br><br><ul style="list-style-type: none"> <li>Biology Paper 1: 11 May 2027</li> <li>Chemistry Paper 1: 17 May 2027</li> <li>Physics Paper 1: 25 May 2027</li> </ul> Half term<br><ul style="list-style-type: none"> <li>Biology Paper 2: 10 June 2027</li> <li>Chemistry Paper 2: 15 June 2027</li> <li>Physics Paper 2: 18 June 2027</li> </ul> |  |
|              | <u>C7 Carbon Chemistry</u><br>1. Prior Knowledge Review<br>2. Crude Oil and Hydrocarbons<br>3. Fractional Distillation<br>4. Combustion of Hydrocarbons - RP<br>5. Cracking<br>6. Polymers<br>7. Assessment cycle                                                                                                                                                                                          | <u>C6 Controlling reactions</u><br>1. Prior Knowledge Review<br>2. Collision Theory - Practical (DEMO)<br>3. Temperature and Concentration<br>4. Surface Area and Pressure - Practical<br>5. Catalysts<br>6. Rate of Reaction Graphs<br>7. Maths in Science (HT) Tangents<br>8. Measuring Rate of Reaction<br>9. 9 & 10. The Effect of Concentration - RP<br>10. Reversible Reactions and Equilibrium<br>11. (HT) Le Chatelier's Principle Conc<br>12. (HT) Le Chatelier's Principle Temp & Pres<br>Assessment cycle | <u>B6 Controlling nature</u><br>1. Prior Knowledge Review<br>2. The Human Genome<br>3. Prior Knowledge Review Inherited Disorders<br>4. Selective Breeding<br>5. The Use of Genetic Engineering<br>6. (HT) The Process of Genetic Engineering<br>7. Therapeutic Cloning and Stem Cells<br>8. Assessment cycle                                                                                                | <u>B6 Evolution</u><br>1. Prior Knowledge Review<br>2. Natural Selection<br>3. Evolution<br>4. Fossils and Extinction<br>5. Classification<br>6. Assessment cycle                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
|              | <u>x1 week revision</u>                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <u>C9 Our Atmosphere</u><br>1. Prior Knowledge Review<br>2. The Earth's Early Atmosphere<br>3. The Changing Atmosphere<br>4. The Greenhouse Effect<br>5. Global Climate Change<br>6. Prior Knowledge Review LCAs and Reduce, Reuse, Recycle<br>7. The Carbon Footprint<br>8. Prior Knowledge Review Combustion of Hydrocarbons<br>9. Atmospheric Pollutants<br>10. Looking to the Future<br>Assessment cycle | <u>C10 Using resources</u><br>1. Prior Knowledge Review<br>2. The Reactivity Series<br>3. Using the Reactivity Series<br>4. Treating Water<br>5. <del>Testing Water</del><br>6. <del>Testing Water Investigation</del><br>7. Using Materials<br>8. Life Cycle Assessments<br>9. Reduce Reuse Recycle<br>10. <del>Evaluating Impact</del><br>11. <del>Sources of Information</del><br>12. <del>Assessment cycle</del> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |