Throughout Key stage 3, pupils will complete a variety of open ended enquiries which are designed to maximise our pupils’ abilities in relation to experimental skills, analysis and evaluation.

### Year 9 Transition KS4 course

<table>
<thead>
<tr>
<th>Biology</th>
<th>Chemistry</th>
<th>Physics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Plant and animal cells</td>
<td>1. Structure of an atom</td>
<td>1. Forms of energy</td>
</tr>
<tr>
<td>2. Functions of cell structures</td>
<td>2. <strong>History of the atom</strong></td>
<td>2. Conservation of energy</td>
</tr>
<tr>
<td>5. Bacteria and yeast cells</td>
<td>5. Mendeleev’s periodic table</td>
<td>5. Kinetic energy</td>
</tr>
<tr>
<td>8. <strong>Advanced microscopy</strong></td>
<td>8. <strong>Group 0 elements</strong></td>
<td>8. Specific heat capacity</td>
</tr>
<tr>
<td>11. <strong>Respiration and exercise</strong></td>
<td>11. Covalent bonding</td>
<td>11. P.d. in circuits</td>
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<tr>
<td>15. Diffusion in plants</td>
<td>15. Fullerences and graphene</td>
<td>15. Electrical safety</td>
</tr>
<tr>
<td>17. Active Transport</td>
<td>17. Gas tests</td>
<td>17. <strong>Transformers</strong></td>
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</tbody>
</table>

Those highlighted in **bold** are included in Separate Science course only.
<table>
<thead>
<tr>
<th>Core and Additional Sciences</th>
<th>Biology</th>
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<th>Physics</th>
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</thead>
<tbody>
<tr>
<td>B1 1 Keeping healthy</td>
<td>C1 1 Fundamental ideas</td>
<td>P1 1 Energy transfer by heating</td>
<td></td>
</tr>
<tr>
<td>B1 2 Coordination and control</td>
<td>C1 2 Rocks and building materials</td>
<td>P1 2 Using energy</td>
<td></td>
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<tr>
<td>B1 3 Medicine and drugs</td>
<td>C1 3 Metals and their uses</td>
<td>P1 3 Electrical energy</td>
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<tr>
<td>B1 4 Adaptation for survival</td>
<td>C1 4 Crude oil and fuels</td>
<td>P1 4 Generating electricity</td>
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<tr>
<td>B1 5 Energy in biomass</td>
<td>C1 5 Products from oil</td>
<td>P1 5 Waves</td>
<td></td>
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<tr>
<td>B1 6 Variation, reproduction</td>
<td>C1 6 Plant oils</td>
<td>P1 6 Electromagnetic waves</td>
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<td>and new technology.</td>
<td>C1 7 Our changing planet</td>
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<tr>
<td>B1 7 Evolution</td>
<td>C2 1 Structure and bonding</td>
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<tr>
<td>B2 1 Cells, tissues and organs</td>
<td>C2 2 Structure and properties</td>
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<tr>
<td>B2 2 Organisms in the</td>
<td>C2 3 How much?</td>
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<tr>
<td>environment</td>
<td>C2 4 Rates and energy</td>
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<td>B2 3 Enzymes</td>
<td>C2 5 Salts and electrolysis</td>
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<td>B2 4 Energy from respiration</td>
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<td>B2 5 Simple inheritance</td>
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<td>B2 6 Old and new species</td>
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<tr>
<td>B3 1 Exchange of materials</td>
<td>C3 1 The periodic table</td>
<td>P3 1 Medical applications of Physics</td>
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<tr>
<td>B3 2 Transporting materials</td>
<td>C3 2 Water</td>
<td>P3 2 Using physics to make things work</td>
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<tr>
<td>B3 3 Homeostasis</td>
<td>C3 3 Energy calculations</td>
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<tr>
<td>B3 4 Humans and the</td>
<td>C3 4 Analysis and synthesis</td>
<td>P3 3 Using magnetic fields to keep things moving.</td>
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</tr>
<tr>
<td>environment</td>
<td>C3 5 Organic chemistry</td>
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