

## Subject:-

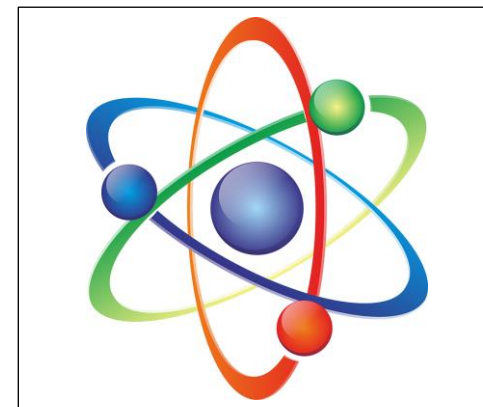
**Science**

Head of Department:-

Mrs K Corroyer

Teachers in this department:-

C Davis, L Hart, W Westwood,  
L McHugh, A Bailey, N Christie



### Year 7 overview

6 x topics covering biology, chemistry and physics, with the broader theme of assessing existing knowledge and building on basics in order to progress into year 8 and have the skills needed to carry out safe and valid science practicals.

Each term students complete 1 x unit that mainly stands alone from any other covered in key stage 3. There is a mix of practical and theory based activities but the emphasis is on 'thinking skills' and 'practical skills'

At the end of each topic is a test that formally assesses their understanding of the ideas covered and work on misconceptions brought up from primary school

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Chemistry 1- The Earth	Chemistry 2- Materials and how they behave	Physics 1- Forces	Physics 2- Energy	Biology 1-Cells, tissues and organs	Biology 2-Body systems / reproduction

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## Year 8 overview

6 x topics covering biology, chemistry and physics, with the broader theme of preparing students for the content as well as the independent thinking skills and knowledge of how to be a good scientist ready for the start of year 9 when GCSE's begin.

Each term students complete 1 x unit that mainly stands alone from any other covered in key stage 3. There is a mix of practical and theory based activities but the emphasis is on 'thinking skills'. At the end of each topic is a test that formally assesses their understanding of the ideas covered.

<b>Term 1</b> <b>Chemistry 3-</b> <b>Separating</b> <b>mixtures</b>	<b>Term 2</b> <b>Chemistry 4-</b> <b>Reactions</b>	<b>Term 3</b> <b>Physics 3-</b> <b>Electricity</b>	<b>Term 4</b> <b>Physics 4-</b> <b>Waves</b>	<b>Term 5</b> <b>Biology 3-</b> <b>Habitats and</b> <b>living</b> <b>ecosystems</b>	<b>Term 6</b> <b>Biology 4-</b> <b>Living</b> <b>processes</b>
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## **Year 9-11 overview**

**In year 9 students are divided into students covered science to a double or triple qualification. The majority of students work towards a double qualification and so have combined science lessons through key stage 4 giving a double combined science set of GCSES but some work via a triple science route and so have separate science lessons with different teachers within a week leading to 3 x GCSES one in each of biology, chemistry and physics. Both courses are entirely exam based which is tested at the end of year 11 with a set of examinations worth 100% of the course. Examinations cannot be re-sat.**

**Each double term (10-14 weeks) students complete 1 unit which is then tested to give a prediction of their final grades.**

**In year 9 teachers are building on the key stage 3 basic knowledge and developing student understanding of how to answer GCSE style questioning. This takes a great deal of practice and staff do expect that predicted grades are often lower than they shall be at the end of year 11**

**In year 10 and 11 students are developing their science understanding to a higher level in order to reach expected target grades. This is done with teacher led or student led practical investigations as well as theory lessons that may involve demonstrations, animations or simulations to help learning**

**Past papers are used throughout key stage 4 to track and monitor progress and help students familiarise with what the final examinations will look like**

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## Year 9-11 overview

### Year 9

<b>Term 1-2</b> <b>Physics 1-2</b> <ul style="list-style-type: none"><li>• Energy</li><li>• Electricity</li></ul>	<b>Term 3-4</b> <b>Chemistry 1-4</b> <ul style="list-style-type: none"><li>• Atomic structure</li><li>• Bonding</li><li>• Quantative chemistry</li><li>• Chemicals</li></ul>	<b>Term 5-6</b> <b>Biology 1-3</b> <ul style="list-style-type: none"><li>• Cell structure</li><li>• Organisation</li><li>• Infection and response</li></ul>
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### Year 10

<b>Term 1-2</b> <b>Physics 3-5</b> <ul style="list-style-type: none"><li>• Particle models</li><li>• Atomic structure</li><li>• Forces</li></ul>	<b>Term 3-4</b> <b>Chemistry 5-8</b> <ul style="list-style-type: none"><li>• Energy change</li><li>• Chemical change</li><li>• Organic chemistry</li><li>• Chemical analysis</li></ul>	<b>Term 5-6</b> <b>Biology 4-6</b> <ul style="list-style-type: none"><li>• Bioenergetics</li><li>• Homeostasis</li><li>• Inheritance and DNA</li></ul>
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### Year 11

<b>Term 1-2</b> <b>Physics 5-7</b> <ul style="list-style-type: none"><li>• Forces</li><li>• Waves</li><li>• Magnetism</li></ul> <b>Calculating/equations revision</b>	<b>Term 3-4</b> <b>Chemistry 8</b> <ul style="list-style-type: none"><li>• Analysis</li><li>• Basics</li><li>• Revision</li></ul>	<b>Term 5-6</b> <b>Biology 6-7</b> <ul style="list-style-type: none"><li>• DNA</li><li>• Ecology</li><li>• QWC Revision</li></ul>
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