



# Bournville School Curriculum Overview



## Curriculum Intent Statement

It is essential to recognise that an education in science is integral for understanding the world. Through science, students are taught to be critical of the information that they are being presented with and how best to interpret it. It is, therefore, essential that we equip our students with the knowledge and real-life scientific skills that will help them succeed. At key stage 3 we will build upon the solid foundations laid at key stage 2 and explore some of the core concepts throughout the three scientific disciplines. Students will be taught key scientific skills through practical work, which will be essential at GCSE level, and substantive knowledge through high quality teaching and low stakes formative assessments. At key stage 4 we will use the skills that have been acquired at KS3 and will apply them to more specialized areas within the specific areas of study. Our key stage 4 provision has been tailored to suit the needs of all learners. As with the key stage 3 curriculum, there will be a particular focus on low stakes testing and formative assessment. Additionally, at key stage 4, we will focus on examination techniques and how to use specific command words.

### Curriculum Overview 2021-2022 Subject: Science

Key stage 4	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Year 11</b>	Ecology. <i>(Paper 2)</i>  Chemical analysis. <i>(Paper 2)</i>  Chemistry of the atmosphere. <i>(Paper 2)</i>  Using resources. <i>(Paper 2)</i>	Forces. <i>(Paper 2)</i>    <b>Mock exam revision.</b> <i>(Paper 1)</i>  <b>Mock exams.</b> <i>(Paper 1)</i>	Forces continued. <i>(Paper 2)</i>  Waves. <i>(Paper 2)</i>  Magnetism and electromagnetism. <i>(Paper 2)</i>  <b>Mock exam revision.</b> <i>(Paper 2)</i>	<b>Mock exam revision.</b> <i>(Paper 2)</i>  <b>Mock exams.</b> <i>(Paper 2)</i>  <b>GCSE revision</b> <i>(Paper 1 &amp; 2)</i>	GCSE examinations.	
<b>Year 10</b>	Energy. <i>(Paper 1)</i>  Infection and response. <i>(Paper 1)</i>  Particle model of matter. <i>(Paper 1)</i>	Chemical changes. <i>(Paper 1)</i>       <b>KS3 reteach.</b>	Quantitative chemistry. <i>(Paper 1)</i>  Atomic structure. <i>(Paper 1)</i>  Homeostasis and response. <i>(Paper 2)</i>  <b>Mid-Year exam.</b>	Inheritance, variation, and evolution. <i>(Paper 2)</i>      <b>End of year exam revision.</b>	Inheritance, variation, and evolution continued. <i>(Paper 2)</i>     <b>End of year exam.</b>	Rate and extent of chemical change. <i>(Paper 2)</i>  Organic Chemistry. <i>(Paper 2)</i>  <b>Paper 1 and 2 topics reteach.</b>

Key stage 3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Year 9</b>	Lab skills. Electricity. Elements and the periodic table.	Respiration and photosynthesis Electromagnetism  <b>Mid-year exam.</b>	Electromagnetism. Types of reaction. Evolution. Uses of waves.	Inheritance. Recreational drugs.	<b>GCSE transition:</b> Cell biology.  <b>End of year exam.</b>	<b>GCSE transition:</b> Atomic structure and elements.
<b>Year 8</b>	Lab skills. Heating and cooling.  <b>Mid-year exam.</b>	Acids and alkalis. Digestion. Work.	Chemical energy. Breathing and circulation.	Magnetism. Earth's resources. Interdependence.	Pressure.  <b>End of year exam.</b>	Climate. Plant reproduction. Waves.
<b>Year 7</b>	Lab skills. Energy transfers.  <b>GL assessments</b>	Particle model. Cells and organisms. Energy costs.	Separating mixtures. Movement.	Speed. Metals and non-metals. Variation.	Human reproduction.  <b>End of year exam</b>	Earth structure. Contact forces. Gravity and the universe.