

## Science

As Rosalind Franklin once stated, ‘science and everyday life cannot and should not be separated.’

At Ark Soane we believe science is an integral part of education and everyday life, empowering every student with the knowledge, curiosity and sheer joy at the complex beauty of the universe and our diverse planet and their own connections to it. Students learn a broad base of scientific knowledge in Biology, Physics and Chemistry which underpins the development of their understanding of the nature of the discipline.

Learning how scientific knowledge becomes established through scientific enquiry enables students to appreciate the nature and status of scientific knowledge, understanding why it is open to revision in the light of new evidence, and how humankind’s knowledge is furthered through scientific investigation

During Key Stage 3 we focus on ensuring strong knowledge in Biology, Physics and Chemistry, which lays the groundwork for study in Key Stage 4 and beyond. Students will regularly revisit topics, gradually increasing the complexity of their understanding by building connections between different areas.

At KS4, all students will complete a programme of study to complete a minimum of two GCSEs in Science following the AQA Combined Science specification.

	<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 1</b>	<b>Spring 2</b>	<b>Summer 1</b>	<b>Summer 2</b>
<b>Year 7</b>	Animal Kingdom  Forces	Particles  Cells	Reproduction  Elements, Atoms and Compounds	Gravity  Interdependence	Energy Transfers  Mixtures	Electric Circuits: Current and Voltage  Compounds
<b>Year 8</b>	Skeletal, Muscular and Respiratory System  Movement & Pressure	Compounds  Acids and Alkalis  Changing Substances & Reactions	Respiration and Photosynthesis  Magnetism	Life Diversity	Electric Circuits: Resistance  Nutrition	Light  Earth Systems
<b>Year 9</b>	B3.1 Growth and Differentiation C3.1 The Periodic Table	P3.1 Acceleration	B3.2 Human Interaction C3.2 Introduction to Quantitative Chemistry	P3.2 Heating B3.3 Genetics	P3.3 Sound and Waves C3.3 Using Resources	P3.4 Home Electricity
<b>Year 10</b>	<ul style="list-style-type: none"> <li>Organ Systems</li> <li>Structure and Bonding</li> </ul>	<ul style="list-style-type: none"> <li>Movement</li> <li>Plant and Material Cycling</li> </ul>	<ul style="list-style-type: none"> <li>Extraction of metals</li> <li>Energy Conservation</li> </ul>	<ul style="list-style-type: none"> <li>Chemical Analysis</li> <li>Electric circuits and energy</li> </ul>	<ul style="list-style-type: none"> <li>Health and disease</li> <li>Radioactivity</li> </ul>	<ul style="list-style-type: none"> <li>Carbon Chemistry</li> <li>Evolution</li> </ul>
<b>Year 11</b>	<ul style="list-style-type: none"> <li>Feedback and Control</li> <li>Quantitative Chemistry</li> <li>E. M. Radiation</li> </ul>	<ul style="list-style-type: none"> <li>Controlling Reproduction</li> <li>Controlling Reactions</li> <li>Force Fields</li> </ul>	<ul style="list-style-type: none"> <li>Controlling Nature</li> <li>Our Atmosphere</li> </ul>			