

KS4 Science at Trinity Academy Cathedral

At Trinity Academy Cathedral, we begin teaching KS4 Science in Year 9. This allows us to:

- Introduce new GCSE content slowly
- Build strong foundations of basic Scientific knowledge without rushing to complete the course
- Encourage good study habits that provide students with the independent skills required to revise well
- Nurture and support students to gain in confidence

	Biology	Chemistry	Physics
Year 9	<p>Biology Unit 1: Cell Level Systems Biology Unit 2: Scaling Up Students are introduced to cells and the main processes that take place inside them. We move on to discussing how organisms survive and the systems that they have developed to help them transport key substances. Students are introduced to our Golden thread: Life Processes</p>	<p>Chemistry Unit 1: Particles Chemistry Unit 2: Elements, Compounds and Mixtures These units introduce the basic unit of all matter- atoms. We explore the arrangement of atoms, bonding and how we can separate different substances. Students are given the foundation to our Golden thread: Chemical Reactions</p>	<p>Physics Unit 1: Matter Physics Unit 2: Forces Students are introduced to the fundamental concepts in Physics on matter and forces. There is an emphasis on how these concepts underpin several other concepts whilst also providing students with an opportunity to visualise and interpret data in different formats. Students are introduced to our Golden Thread: Energy and Forces</p>

<p>Year 10</p>	<p>Biology Unit 3: Organism level systems Biology Unit 4: Community Level Systems Students begin Year 10 with an exploration of how systems within organisms work and are maintained to ensure balance. This is further taken to discuss how organisms relate to one another for survival.</p>	<p>Chemistry Unit 3: Chemical Reactions Chemistry Unit 4: Predicting and Identifying reactions and products Students start to use their knowledge of particles in understanding chemical reactions and what occurs when new products are made.</p>	<p>Physics Unit 3: Electricity and Magnetism Physics Unit 4: Waves and Radioactivity Physics Unit 5: Energy Students build on their foundation of forces and matter by understanding how devices work when using electricity and how energy is transferred to make things work.</p>
<p>Year 11</p>	<p>Biology Unit 5: Genes, Inheritance and Selection Biology Unit 6: Global Challenges Students complete their course in Biology by looking at how organisms inherit characteristics and how our immune systems work. We also explore how human activity can have an impact on life on Earth.</p>	<p>Chemistry Unit 5: Monitoring and controlling chemical reactions Chemistry Unit 6: Global Challenges Students apply all their knowledge of chemical reactions to understand how particles behave during a chemical change and how we can control factors that can affect rate. We further explore how we can apply foundational Chemistry knowledge to important</p>	<p>Physics Unit 6: Global Challenges Students use their knowledge of electricity, forces and energy to further understand how the National Grid works and how different factors can affect our reaction times.</p>

		processes such as Electrolysis and Fractional Distillation.	
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