

Year 10 - Chemistry

Year 10 is when students fully embark on their GCSE journey. They begin to build a more in depth understanding of the concepts learned earlier in each theme and develop aspirations of a career in STEM.

Throughout year 10 the students will use experimental techniques, critical thinking and considered questioning to explore a range of topics in biology, chemistry and physics.

Knowledge overview	Topic 1	Topic 2	Topic 3	Topic 4
Topic	Chemical changes	Energy changes	Quantitative chemistry	Chemistry of the atmosphere
Theme	Chemical reactions 3	Chemical reactions 5	Chemical reactions 4	Earth's resources 3
Overview	In this topic students will explore some of the various different chemical reactions which occur in industrial processes. Students will use their understanding of experimental techniques to explain how metals can be extracted from their ores.	In this topic students will take an in depth look at the energy changes associated with chemical reactions. Students will use experimental data to quantify and calculate these energy changes and then apply their results to real world contexts.	In this topic students will delve into the methods used to quantify the amounts of substance used and produced in chemical reactions. Students will use mathematical concepts such as algebraic equations and ratios to calculate the yields	In this topic students look at in depth how human activity is having an impact on the atmosphere an how these changes can affect to world we live in. Students will consider how bias and misinformation can cause misconceptions regarding to scientific theories and