Nobel

Year: 8

Subject: Chemistry

Vision

The purpose of KS3 is to embed the building blocks of scientific knowledge and enquiry, and to inspire a sense of wonder and awe at the world around us.

Year 8 introduces the concept of specific chemical reactions, starting with acids and alkalis, then different types of chemical reactions then leading on to metal and acid reactions. The final topic looks at substances made from our Earth. As well as the assessments detailed below there will be 2 cumulative tests which will include Biology, Chemistry and Physics topics and an end of year exam.

	Foci	Assessment	Knowledge Organiser
Unit 1	• **Acids and Alkalis** This topic helps us to understand the world around us, such as the warning signs and symbols. Understanding neutralization helps us to understand the human body, in that acid is made in the stomach, and how an excess can cause pain. Neutralisation reactions are used to reduce the amount of acid in the stomach, as well as to change soil pH and neutralize acidic lakes.	Formative assessments throughout the topic including multiple choice questions, extended writing, and practical work End of topic Test	**Acids and Alkalis**
Unit 2	• **Chemical Reactions** Elements are the basic substances that make up matter in the universe. Each element is a chemical. Elements that form bonds are called molecules/ compounds. Chemical reactions occur when molecules/compounds interact and change. Bonds between atoms in molecules or compounds break and are reformed in new ways. Chemical reactions are at the centre of every biological process in the universe.	Formative assessments throughout the topic including multiple choice questions, extended writing, and practical work End of topic Test	**Chemical Reactions**
Unit 3	• **Metals and Acids** In this topic a range of topics are brought together using our knowledge about chemical reactions. This topic looks at the reactions of metals to the uses of ceramics, polymers, and composite materials and how they are used.	Formative assessments throughout the topic including multiple choice questions, extended writing, and practical work End of topic Test	**Metals and Acids**
Unit 4	• **The Earth's Resources** The earth and its resources are finite and will eventually run out. Most of the resources we use are non-renewable and if we know about the composition of the Earth and the structure of the Earth, the rock cycle and the formation of igneous, sedimentary and metamorphic rocks, then we will know where the resources, that we use every day, come from. This topic also looks at recycling and chemical reactions that occur in nature to increase and decrease the level of carbon dioxide in our atmosphere.	Formative assessments throughout the topic including multiple choice questions, extended writing, and practical work End of topic Test	**The Earth's Resources**