

Half term	Unit Title Hyperlink to SOW	Description
8.1	Reproduction	The unit covers aspects of puberty and growth. The different components and functions of the male and female reproductive systems. Pregnancy and child birth is also explored in this unit. Pupils should learn that harmful substances and viruses can cross the placenta into the foetus and affect development. Pupils should learn that a drug is any substance that changes the way the body or mind works; that drugs alter the way the body works physically or mentally. This unit covers how plants grow and the role of the leaf in photosynthesis. Students will learn about what happens to the glucose produced in leaves. They will explore why green plants are important in the environment. The unit covers leaves, photosynthesis, dispersal and pollination. Pupils should learn about the products of photosynthesis and how plants respire. They will learn about the role of the root and adaptations of the leaves in photosynthesis.
8.2	The periodic table	This unit states that pupils will explore the properties of metals and non-metals. They will study what happens when metals react with acids. Students will learn about the chemical reactions between acids and metal oxides. The students will explore the principles underpinning the Mendeleev periodic table. This unit states that pupils will establish and use a reactivity series for metals.
8.4	Electricity and magnets	In this unit pupils will study the concept of static electricity. They will explain how objects can become charged, describe how charged objects interact and explore the idea of electric field. Pupils will study circuits and will be required to describe what is meant by current and to set up a circuit including an ammeter to measure current. Pupils will learn about potential difference and use this to explain resistance as the ratio of potential difference (p.d.) to current. Pupils will also study differences in resistance between conducting and insulating components. Pupils will develop these ideas when studying series and parallel circuits. They will be required to describe how current and potential difference vary in series and parallel circuits and also identify the pattern of current and potential difference in series and parallel circuits.
8.5	Motion and pressure	In this unit pupils will study the quantitative relationship between average speed, distance, and time and the relative motion of trains and cars passing one another. They will study representations of a journey on a distance–time graph by interpreting these graphs, calculating speed from the graph and plotting data on a distance time graph accurately. Pupils will learn how to use the quantitative relationship between force, area and pressure. Pupils will explore pressure in fluids by describing and explaining atmospheric pressure in liquids and gases. They will describe the factors that affect gas pressure and explain how atmospheric pressure changes with height. They will also describe how liquid pressure changes with depth and predict how water pressure changes. Additionally, pupils will be required to calculate pressure and apply ideas of pressure to different situations, as well as describing what is meant by ‘moments’ and calculating the moment of a force.
8.6	Chemical reactions	This unit covers chemical and physical reactions. Teachers need to emphasise that some physical changes also involve colour changes and gas evolution and that a chemical reaction is distinguished by changes in the ways atoms are bonded together. Pupils should learn to represent and explain chemical reactions by word equations, models or diagrams. The unit enables the students to write and complete chemical equations. They will study about chemical reactions that take place when fuels burn and how else chemical reactions can be used as energy resources. They will explore how fuels burn and complete word and symbol equations on complete and incomplete combustion. Students will explore the processes of different types of reactions like thermal decomposition, exothermic and endothermic reactions.
8.7	Earth Science	The unit states that in scientific enquiry pupils will consider how evidence from sedimentary layers and from fossils has led to changes in ideas about the development of the Earth. They will study the rock cycle – ‘how the rock cycle provides a continuous supply and transformation of Earth materials. The students will learn about the distinguishing features of the three types of rocks and their uses. The unit also covers weathering, erosion, transportation and the rock cycle. A lesson should be focused on changes to the Earth’s atmosphere and the carbon cycle. The unit covers human activity and the natural processes can lead to changes in the environment.