YEAR 8 CURRICULUM PLAN FOR SCIENCE

TOPIC	KEY LEARNING	ASSESSMENT
Half-term 1 Elements and Compounds	To know how materials can be grouped and what is an element. To be to classify a material as a metal or non-metal. To be able to use the Periodic table to find the name or symbols of elements. To know what a compound is and be able to name them in a reaction as represent them as a formula. To be able to produce a compound and write a word equation and symbol equation for its production. To know what mixtures are and be familiar with the terms ceramics, polymers and composites. Know that mass is conserved in a chemical reaction.	**Mid-topic progress test**: Elements & Compounds **End of unit test:** Elements & Compounds
Half-term 2 Body Systems	To be familiar with the roles and locations of the major organs of the body. To know how each of the 7 food groups form part of a balanced diet and some the tests for some food groups. To know the roles of enzymes and the parts of the digestive system. To know how the body regulates its temperature, and the structure of the nervous system. To carry out an investigation to determine the sensitivity of different parts of the body. To know how the lungs work and the structure of the heart, the circulatory system and the effect of exercise on the body.	**Mid-topic progress test**: Food & the digestive system Skin sensitivity assessment **End of unit test:** Body Systems
Half-term 3 Heat and Sound	To know how the temperature of substance can be accurately measured using a thermometer. To know how heat can travel as conduction, convection and radiation. To know how sounds are produced and travel, to recognise sound traces on an oscilloscope and to know details of how the ear enables us to hear and what our audible range is.	**Mid-topic progress test**: Heat **End of unit test:** Heat & Sound
Half-term 4 Light and Space	To know how light travels and how we see things. To know what happens to light when it hits different materials. To be able to draw ray diagrams of reflected and refracted light. To know why light disperses through a glass prism and why different objects appear different colours. To know effect of filters and convex lenses on light and why some materials appear shiny yet others dull. To have some knowledge of the planets in our solar system. To be able to explain why we have day/night and seasons. To know why the moon does not always look the same and what eclipses are.	**Mid-topic progress test**: Light **End of unit test:** Light & Space
Half-term 5 Ecology	To know how plants and animal depend on each other. To know how a plant is adapted for photosynthesis and to be able to carry out an experiment to test a leaf for starch. To be able to draw food chains, food webs and pyramids of numbers for some habitats. To know the effects of bioaccumulation. To know how animals can be adapted as predators or prey and to harsh/changing environments. Be able to use a dichotomous key to identify an organism and be familiar with different types of sampling techniques.	**Mid-topic progress test**: Photosynthesis **End of unit test:** Ecology
Half-term 6 Rocks	To identify features of rocks that can be different. To know igneous, sedimentary and metamorphic rocks are made and how they can be identified. To be familiar with the Physical, Chemical and Biological weathering of rocks. To know methods rock can be eroded and what the Rock cycle is. Know hoe the internal structure of the earth is responsible for many geographical features.	**Mid-topic progress test**: Rock Types **End of unit test:** Rocks

NB: The order of topics may be different for some classes in order to reduce the demand for scientific apparatus at any one time.