



MILESTONE CHEMISTRY

Outcomes

Earth and Atmosphere	
	<ul style="list-style-type: none"> ▪ Will be able to label a diagram showing the structure of the Earth ▪ Will describe the structure and 4 layers of the Earth ▪ Will name the gases that make up the Earth's atmosphere ▪ Will name the % of gases that make up the Earth's atmosphere ▪ Will name and give examples of 3 different types of rock ▪ Will describe the properties of the 3 different types of rock ▪ Will be able to explain weathering ▪ Will use a diagram to explain what happens in the rock cycle ▪ Will be able to explain the carbon cycle ▪ Will name the 5 different parts of the carbon cycle, explaining what happens at each stage ▪ Will explain some of the causes of global warming ▪ Will explain some of the impacts of global warming ▪ Will name 2 advantages and 2 disadvantages of recycling ▪ Will identify sources of renewable energy
Earth – seasonal change	
	<ul style="list-style-type: none"> ▪ Will explore activities related to Summer, Winter, Autumn and Spring ▪ Will be able to select appropriate clothing choices for the season and begin to give simple reasons for their choices ▪ Observe changes across the four seasons ▪ Observe and describe weather associated with the seasons and how day length varies. ▪ Will comment on new life that begins in Spring ▪ Will compare and contrast seasons
Earth - sustainability	
	<ul style="list-style-type: none"> ▪ Will explore activities using recycled materials ▪ Will know that there are different bins to put waste into, such as compost bins, waste bins and recycling bins. Pupils will begin to understand how this has an impact on their wider world ▪ Will describe simple ways in which we can keep our immediate environment clean and safe for humans and animals. ▪ Will understand the benefits of looking after our planet, e.g., turning off taps when brushing teeth and washing their hands and turning off lights ▪ Will participate in activities which explore different ways of producing and using renewable energies ▪ Will be able to identify compare renewable and non-renewable energy sources, making connections to the benefits of renewable in terms of impact on climate and Earth as a source of limited resources, and strategies to reduce use of non-renewable
Materials and states of matter	
	<ul style="list-style-type: none"> ▪ Will experience a variety of different materials in their immediate environment ▪ Will know that some materials are more suitable than others for a chosen purpose ▪ Will identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock ▪ Will understand and distinguish between an object and the material from which it is made ▪ Will compare and group together a variety of everyday materials on the basis of their simple physical properties. ▪ Will identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses ▪ Will know that materials can look and feel different, and the shapes of solid objects can be changed by squashing, bending, twisting and stretching ▪ Will compare and group materials together, according to whether they are solids, liquids or gases. ▪ Will observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C). ▪ Will identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. ▪ Will compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. ▪ Will recognise that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution ▪ Will use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. ▪ Will give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. ▪ Will demonstrate that dissolving, mixing and changes of state are reversible changes. ▪ Will explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.
Rocks	
	<ul style="list-style-type: none"> ▪ Explore... ▪ Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. ▪ Describe in simple terms how fossils are formed when things that have lived are trapped within rock. ▪ Recognise that soils are made from rocks and organic matter.