

Progression in Chemistry understanding

Have no fear of perfection: you'll never reach it – Madame Curie

Year	Skills
FS2	<ul style="list-style-type: none"> • (22-36 months) Experimenting with colour (paints) • (22-36 months) Noticing detailed features of objects in the environment. • (30-50 months) Commenting and asking questions about their familiar world (place they live and the natural world). • (30-50 months) Exploring how colours can be changed. (Mixing paint) • (30-50 months) Developing understanding of changes over time (e.g. melting ice). • (40-60 months) Observing similarities, differences, patterns and changes. • (40-60 months) Exploring what happens when they mix colours. (Mixing paint) <p>EARLY LEARNING GOAL:</p> <ul style="list-style-type: none"> • Identifying similarities and differences in relation to objects and materials (Is it rough or smooth? Does it melt in warm water? Can it float?). • Observing chemical change and explaining reasons for change (The chocolate melts when I hold it).
KS1	<p>Everyday Materials</p> <ul style="list-style-type: none"> • Distinguishing between an object and the materials from which it is made. • Identifying, describing and naming a variety of everyday materials and their properties. • Comparing and grouping together a variety of everyday materials based on their simple physical properties. <p>Use of Everyday Materials</p> <ul style="list-style-type: none"> • Identifying and comparing suitability of a variety of everyday materials. • Finding out how the shapes of solid objects made from some materials can be changed.
LKS2	<p>Rocks</p> <ul style="list-style-type: none"> • Comparing and grouping different types of rocks based on their physical appearance and simple physical properties. • Describing in simple terms how fossils are formed when things that have lived are trapped within rock. • Recognising that soils are made from different types of rock and organic matter. <p>States of Matter</p> <ul style="list-style-type: none"> • Comparing and grouping materials together according to whether they are solids liquids or gases. • Observing that some materials change state when they are heated or cooled, and measuring or researching the temperature at which this happens in degrees Celsius. • Identifying the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.
UKS2	<p>Properties and Changes of Materials</p> <ul style="list-style-type: none"> • Knowing that some materials will dissolve in a liquid to form a solution, and describe how to recover a substance from a solution. • Using knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. • Giving reasons based on evidence from comparative and fair tests, for the particular uses of everyday materials. • Demonstrating that dissolving, mixing and changes of state can be reversible. • Explaining that some changes result in the formation of a new material and this kind of change is not usually reversible.