

St. Benedict's Primary School
SCIENCE
KNOWLEDGE AND SKILLS BUILDER

Science element from the National Curriculum – States of Matter

Phase	Context for learning	Knowledge and Skills for States of Matter
LOWER KEY STAGE 2	<p>KS2 YEAR 3 ILP Potions</p> <p>Big Question – What is the difference between a solid, liquid and gas?</p> <p>Programme of Study linked to States of Matter</p> <ul style="list-style-type: none"> • Ask relevant questions and using different types of scientific enquiries to answer them. • Compare and group materials together, according to whether they are solids, liquids or gases. • 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). 	<p>Skills Ask relevant scientific questions, independently, about the world around them and begin to identify how they can answer</p> <p>Knowledge Questions can help us find out about the world and can be answered using scientific enquiry.</p> <p>Skills Group and sort materials into solids, liquids or gases</p> <p>Knowledge Materials can be grouped according to whether they are solids, liquids or gases. Solids stay in one place and can be held. Some solids can be squashed, bent, twisted and stretched. Examples of solids include wood, metal, plastic and clay. Liquids move around (flow) easily and are difficult to hold. Liquids take the shape of the container in which they are held. Examples of liquids include water, juice and milk. Gases spread out to fill the available space and cannot be held. Air is a mixture of gases.</p> <p>Skills Observe and explain that some materials change state when they are heated or cooled and measure or research the temperature in degrees Celsius (°C) at which materials change state</p> <p>Knowledge Heating or cooling materials can bring about a change of state. This change of state can be reversible or irreversible. The temperature at which materials change state varies depending on the material. Water changes state from solid (ice) ⇌ liquid (water) at 0°C and from liquid (water) ⇌ gas (water vapour) at 100°C. The process of changing from a solid to liquid is called melting. The reverse process of changing from a liquid to a solid is called freezing. The process of changing from a liquid to a gas is called evaporation. The reverse process of changing from a gas to a liquid is called condensation.</p>