

Properties and changing materials/States of matter

Properties and changing materials						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Distinguish between an object and the material from which it is made.					
	Identify and name a variety of everyday materials, including wood, plastic, glass, water and rock. Vocabulary- Metal, glass, plastic, paper, foil, rock, water, wood, fabric					
<p>Know that things can change shape</p> <p>Know about melting</p> <p>Know which objects act like a mirror</p> <p>Know how water changes</p> <p>Vocabulary- Change, solid, liquid, pan, metal. Melt, freeze, cold, set, mould Aluminium, smooth, glass, polish, mirror. Thirsty, dilute, steam, ice, mist,</p>	<p>Describe the simple physical properties of a variety of everyday materials. Vocabulary- Hard, soft, dull, shiny, strong, bendy, smooth, rough</p> <p>Compare and group together a variety of everyday materials on the basis of their physical properties.</p>	<p>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p>Vocabulary- Card, metal, clay, concrete, plastic, fabric, rock, fur, rubber, feathers, wood, glass, wool, leather, cotton, brick, carpet. sharp, shiny, hard, slimy, liquid, smooth, opaque, solid, rough, transparent, runny, waterproof, soft, dull.</p>		<p>Compare and group materials together, according to whether they are solids, liquids or gases</p> <p>Vocabulary- States of matter - Solid, liquid and gas Examples of gases (at room temperature and pressure) – Oxygen, hydrogen, helium, carbon dioxide, methane Examples of liquids (at room temperature and pressure) – Water, milk, juice, petrol, oil Examples of solids (at room temperature and pressure) – Wood, rocks, metal, plastic, glass, wool, leather, etc</p>	<p>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</p> <p>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</p> <p>Vocabulary- Thermal conductivity – thermal conductor, thermal insulator Electrical conductivity – electrical conductor, electrical insulator</p>	
		<p>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. Vocabulary- Flexible, rigid, bendy, stretchy.</p>				
				<p>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> <p>Vocabulary- Examples of gases (at room temperature and pressure) – Oxygen, hydrogen, helium, carbon dioxide, methane</p>	<p>Understand that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes</p> <p>Vocabulary-</p>	

				<p>Examples of liquids (at room temperature and pressure) – Water, milk, juice, petrol, oil</p> <p>Examples of solids (at room temperature and pressure) – Wood, rocks, metal, plastic, glass, wool, leather, etc</p> <p>Processes – heating, cooling, melting, condensation, evaporation, solidifying, freezing, steam</p>	<p>Dissolving – Solvent, solution, solute, soluble, insoluble, solid, liquid, particles, suspensions, reversible, irreversible</p>	
				<p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p> <p>Vocabulary- Water cycle-Water vapour, condensation, precipitation, evaporation, collection, transpiration, particles</p>		
					<p>Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</p> <p>Vocabulary- Separating materials – Sieve, filter, evaporate, condense, magnetic</p>	