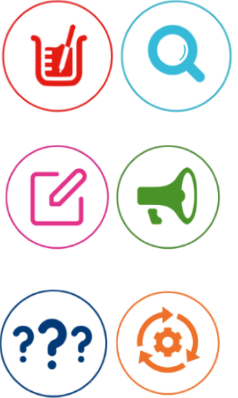

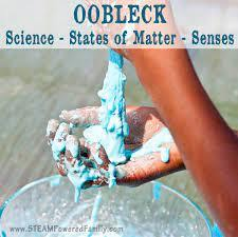
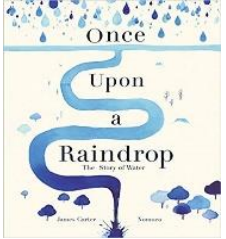


Year 4 – States of Matter

Key Concepts	Learning possibilities	Scientific Enquiry	Prior Learning
<p>Compare and group materials together, according to whether they are solids, liquids or gases</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>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</p>	<ul style="list-style-type: none"> • Observe closely & classify a range of solids, liquids & gases. • Explore making gases visible e.g. squeezing sponges under water to see bubbles, and showing their effect e.g. using straws to blow objects, trees moving in the wind. • Observe a range of materials melting e.g. ice, chocolate, • Investigate how to melt ice more quickly. • Observe the changes when making cakes or ice cream • Investigate the melting point of different materials e.g. ice, margarine, butter and chocolate. • Explore freezing different liquids e.g. ketchup, oil, shampoo. • Use a thermometer to measure temperatures e.g. icy water (melting), tap water, hot water, boiling water (demonstration). • Observe water evaporating and condensing e.g. on cups of icy water and hot water. • Set up investigations to explore changing the rate of evaporation e.g. washing, puddles, handprints on paper towels, liquids in containers. • Use secondary sources to find out about the water cycle. 		<ul style="list-style-type: none"> • Distinguish between an object and the material from which it is made. (Y1 - Everyday materials) • Identify and name a variety of everyday materials (Y1 - Materials) • Describe the simple physical properties of a variety of everyday materials. (Y1 - Materials) • Compare and group together a variety of everyday materials (Y1 -Materials) • Identify and compare the suitability of a variety of everyday materials, for particular uses. (Y2 - Materials) • Find out how the shapes of solid objects made from some materials can be changed (Y2 - Materials)
Cultural Capital			
Key Vocabulary		<p>Sir Issac Newton 1642-1727</p> 	<p>Non-Newtonian fluids it solid or liquid?</p>  
<p>Solid, liquid, gas, state change, melting, freezing, melting point, boiling point, evaporation, temperature, water cycle</p>			