

Question-based Learning Project	Intent To know...	'Sticky Knowledge' Interesting Facts EYFS & National Curriculum		Cultural Capital + Memorable Experiences	Vocabulary
<p>Nursery</p> <p>Why do you love me so much? (on-going)</p> <p>How does this building stay up?</p> <p>How many pebbles on the beach?</p>	<p>- materials change when heated or cooled</p> <p>- buildings can be built from a variety of materials</p> <p>- there are different types of boats & that they move in different ways</p>	<p><i>* One of the biggest birthday cakes was as heavy as an elephant</i></p> <p><i>* The Shard is the tallest building in England. It is 95 storeys high</i></p> <p><i>* Boats can have sails, oars or engines to make them move</i></p>	<p>3-4 years: Understanding the World</p> <p>- talk about the differences between materials and changes they notice</p> <p>- talk about what they see using a wide vocabulary</p> <p>- show interest in different occupations</p> <p>- explore how things work</p> <p>- explore how things work</p> <p>- explore & talk about different forces</p>	<p>- every child to bake a cake when it is their birthday</p> <p>- Look at different buildings on a walk</p> <p>- Beach day in nursery with a range of boats in the paddling pool</p>	<p>- cook, bake, hot, oven, change</p> <p>- excavators, crane, mixers, bulldozer, push, pull, tip, lift</p> <p>- sails, engines, oars, propellers, force, wind</p>
<p>Reception</p> <p>Who Lives in a Land Far, Far Away?</p> <p>Are we there yet?</p>	<p>- materials have different properties</p> <p>- some objects/materials can float or sink</p>	<p><i>* Materials can be natural or man-made</i></p> <p><i>* The shape of an object can make it float or sink</i></p>	<p>Reception: Understanding the World</p> <p>- explore the natural world around them</p> <p>ELG – The Natural World</p> <p>- understand some important processes and changes in the natural world around them, including the changing states of matter</p>	<p>- Fairy Tale Day</p> <p>- Crich Tramway Museum visit</p>	<p>- material, rough, smooth, bumpy, shiny, dull</p> <p>- re-cycling</p> <p>- pollution</p> <p>- environment</p>

<p>Incidental topic based cooking opportunities</p>	<p>- how to care for our environment</p> <p>- make cakes, porridge, biscuits, melt chocolate etc by heating & cooling</p>	<p><i>* Pollution – some forms can be seen and some are invisible</i></p>	<p><u>ELG – The Natural World</u></p> <p>- understand some important processes and changes in the natural world around them, including the changing states of matter</p>	<p>- Baking in Reception Unit kitchen</p>	<p>- melting, freezing, mixing</p>
<p>Year 1</p> <p>What can you see in Space?</p>	<p>- names of common materials and their properties</p>	<p><i>* Saturn could float in water because it is mostly made of gas</i></p> <p><i>*Metal expands when heated</i></p>	<ul style="list-style-type: none"> ♣ distinguish between an object and the material from which it is made ♣ identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock ♣ describe the simple physical properties of a variety of everyday materials ♣ compare and group together a variety of everyday materials on the basis of their simple physical properties 	<p>- Alien Crash landing site</p> <p>- visit to National Space Centre</p>	<p>- wood, plastic, metal, paper, rock, glass, twist, bed, stretch, fold</p> <p>- property</p>
<p>Year 2</p> <p>From Kilburn to Kenya.. where would you prefer to live?</p>	<p>- the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p>	<p><i>* Plastic is made from oil</i></p> <p><i>* Glass is made from sand</i></p>	<ul style="list-style-type: none"> ♣ 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>- Local area walk + investigation</p> <p>- Local residents in to talk about local area</p>	<ul style="list-style-type: none"> - material, property - suitability - strong/weak - fragile - waterproof - flexible - man-made, natural - transparent

<p>How did we travel from then to now?</p>	<p>- how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</p>	<p><i>* A force needs applying to make materials change shape</i></p> <p><i>* When an object permanently changes shape without breaking it is called plasticity</i></p>	<p>♣ find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</p>	<p>- visit to Newark Air Museum</p> <p>- Paper aeroplane competition</p>	<p>- push, pull, force, apply</p> <p>- rigid</p> <p>- flexible</p> <p>- squash, bend</p> <p>- stretch</p> <p>- twist</p> <p>- concertina</p> <p>- plasticity</p>
<p>Why should we protect our planet?</p>	<p>- what decomposition means</p> <p>- what coastal erosion is</p>	<p><i>* Only 9% plastic is re-cycled</i></p> <p><i>* In the future there will be more plastic in the ocean than fish</i></p>	<p>“</p>	<p>- Beach Day</p>	<p>- decompose, decay, properties, natural, man-made, disintegrate, rust, erosion</p>