Kilburn Infant & Nursery School **Curriculum Intent Overview**

ELG + Subject Area: EYFS Understanding the World & KS1 Science – Everyday Materials **Chemistry**

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

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Incidental topic based cooking opportunities	- how to care for our environment - make cakes, porridge, biscuits, melt chocolate etc by heating & cooling	** Pollution – some forms can be seen and some are invisible*	**ELG – The Natural World** - understand some important processes and changes in the natural world around them, including the changing states of matter	- Baking in Reception Unit kitchen	- melting, freezing, mixing
Year 1 **What can you see in Space?**	- names of common materials and their properties	** Saturn could float in water because it is mostly made of gas* **Metal expands when heated*	♣ 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	- Alien Crash landing site - visit to National Space Centre	- wood, plastic, metal, paper, rock, glass, twist, bed, stretch, fold - property
Year 2 **From Kilburn to Kenya.. where would you prefer to live?**	- the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	** Plastic is made from oil* ** Glass is made from sand*	♣ identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	- Local area walk + investigation - Local residents in to talk about local area	- material, property - suitability - strong/weak - fragile - waterproof - flexible - man-made, natural - transparent

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