

Y2 – Uses of Everyday Materials

Aspiration Creativity – problem solving		Partnership with parents Community – parents in to test shelters	
Key Questions <ul style="list-style-type: none"> - What are the physical properties of these materials? - Why are some materials more suitable than others for different purposes? - How can we test materials to see if they are waterproof? - How can we change the shape of solid objects by squashing, bending, twisting and stretching? 	Working Scientifically <ul style="list-style-type: none"> - asking simple questions and recognising that they can be answered in different ways - observing closely, using simple equipment - performing simple tests - identifying and classifying (uses of materials) - using their observations and ideas to suggest answers to questions - gathering and recording data to help in answering questions 		<i>Also covered in:</i> Y1 – Everyday materials Y4 – States of matter Y5 – Properties and changes of materials
	At the end of this unit, children will be able to: <ul style="list-style-type: none"> - identify and compare the suitability of different materials for different uses - ask simple questions and use their observations and ideas to suggest answers - perform simple tests to test waterproofing - collect, record and present data to answer questions - describe how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching 		
Knowledge <ul style="list-style-type: none"> - Materials are useful in different situations depending upon their properties. Suggest suitable materials for a given purpose explaining why they are suitable – Glass is used to make windows because it is transparent. - Properties of objects can be tested in different ways – test magnetism with magnets, test waterproofing by dropping water onto the materials. - Squashing plasticine changes its shape – from spherical to a flat disc/circle - Stretching plasticine changes its shape – short and fat to longer and thinner - Bend and twist balloons to make shapes. Bending forms a curve. Twisting is curling or rotating. - John Boyd Dunlop was born in 1840 and he trained to become a vet. He invented the pneumatic tyre (filled with air) and used rubber to make the tyre for his son’s tricycle. A racing cyclist borrowed John Dunlop’s idea and began to win races. Dunlop tyres were developed. It is a brand of tyre sold all around the world. - Objects like sponges can be squashed and return to their original shape but some objects will not (sweets like rolo, dolly mixture). 			
Topic Specific Vocabulary Material, properties, similar, different, hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; see through/not see through, opaque/transparent; float/sink, group, sort, test, investigate, predict, results, twisting, bending, squashing and stretching, cool/er, temperature, insulator.		NC Subject content <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 - find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching 	
Subject Specific/Academic Vocabulary This vocabulary should be explicitly taught in context. Other tier 2 words should also be explored as they are encountered.			
Year 1		Year 2	
Environment, evidence, method, normal, resources, select, similar, task		Data, evaluate, estimate, positive, research	
We are scientists <i>Audience: parents invited after school</i> Linked to DT – Testing shelters			