

Preston Primary School Knowledge Organiser

Topic: Science – Everyday materials

Term: Autumn 2

Year: 1 & 2

Duration: 6 lessons

The Powerful Knowledge we will take away from this Learning Enquiry (what we will be learning):

	Observe, identify and classify – What are objects made from?
	Observation – What are the properties of the different materials?
	Identifying and classifying –Use simple equipment to observe closely and identify the properties of the different materials.
	Plan/Simple test – Ask questions and make predictions – Which materials will float, which will sink?
	Simple test – What happens to water when it is heated and cooled?
	Problem-solve/simple test – Which method is best to free Elsa from the block of ice the quickest?
	Simple test – Which materials are opaque and which are transparent?

Our Key Vocabulary:

Word	Meaning
Material	What an object is made from e.g, wood, plastic, glass, metal, water, rock.
Properties of materials	Hard/soft, shiny/dull, rough/smooth, heavy/light, transparent/opaque.
Transparent	A material that can be seen through.
Opaque	A material that cannot be seen through.
Melt	When a solid turns to liquid- when ice melts and turns to water.
Freeze	When a liquid turns into a solid- when water freezes it turns to ice.
Texture	The feel of a material. Smooth means that it doesn't have lumps so things easy to slide. Rough means having an uneven surface. Sharp means that it has edges that can cut. Abrasive means that it will wear away other surfaces if rubbed against them.
Hard	Not easily broken or bent. Soft material can easily change shape or is gentle to touch.
Float	When an object stays on top of the water.
Sink	When an object falls to the bottom of the water.

Key Scientists

- John Boyd Dunlop (1840 – 1921) -



<http://primaryfacts.com/8429/john-boyd-dunlop-facts-and-information/>

- Charles Macintosh (176 – 1843) –



http://www.rampantscotland.com/inventors/inventions_waterproof.htm

- John McAdam (1756 – 1836) –

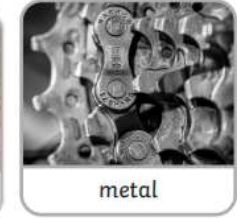


<http://inventors.about.com/library/inventors/blJohnMcAdam.htm>

What I already know:

In Puffins and Penguins, I learned about some important processes and changes in the natural world around me, including the seasons and changing states of matter.

Images:



Further Information

Solids, liquids, and gases

All materials can exist in all states, dependent on temperature and pressure.

Solids – These have a definite shape and keep it.

Liquids - Not all liquids are the same. They look and feel different. All liquids will pour. Thicker liquids pour more slowly. Liquids take the shape of their container.

Dry sand will pour like a liquid and take the shape of its container. In a flat tray, dry sand will pile up, but water will spread to fill the tray. This is because sand is not a liquid. It is made up of lots of tiny solids.

Gases - Gases will fill the space that they are in. If it is in a larger area the pressure will be less than if it were in a small area.

