KS1 Science Knowledge Organiser

Term 3 Materials Monster

Key Enquiry Question: Which materials are good or bad for everyday objects?

National Curriculum Objectives:

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.

Material	Properties	Uses
wood 	opaque hard strong	table 
metal 	shiny smooth reflective	fork 
plastic 	waterproof bendy translucent	water bottle 
glass 	transparent waterproof hard	window 
brick 	hard rough dull	wall 
rock 	strong hard rigid	fireplace 
paper 	tears easily translucent flexible	book 
cardboard 	dull non-reflective opaque	boxes 
fabric 	flexible Soft absorbent	clothes 

Sticky Knowledge / Golden Thread (hierarchy):

There are lots of different types of materials with different properties. Some materials are hard and smooth and others are bendy and rough. We can sort them in different ways according to their properties, by matching up the ones that feel the same, look the same or even by finding out which ones are waterproof.

Some materials are better than others for different purposes. Some materials are great for making cups out of whilst others would make brilliant coats. You can change many materials by squashing, bending, twisting and stretching them to fit a purpose.

Significant scientists	
John Loudon McAdam *(1756-1836)* 	John Loudon McAdam was a Scottish engineer who modernised the way we build roads. He was the inventor of tarmacadam road surfacing – commonly called tarmac.
Julie Brusaw 	Julie is one of the inventors of Solar Roadways. Solar roadways use solar powered road panels to form a smart roadway.