Science Progression Framework: Materials (Year 1 – 5)

Year 1	Year 2	Year 3	Year 4 States of Matter	Year 5	Year 6
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	**Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses**			**Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.**	
Chn can say what an object is and what material it is made from. Chn can name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.	Chn can compare the suitability of different materials (wood, metal, plastic, glass, brick, rock, paper and cardboard) and explain why a material would be selected for a particular use.			Chn can use their findings and observations from investigations to give reasons for the particular uses of everyday materials.	
Describe the simple physical properties of a variety of everyday materials		**No specific 'materials' topic in Year 3 PoS, however, chn will:**			
Chn can describe the simple properties of everyday materials from the home and classroom.		Links to 'Rocks': Chn compare and group together different kinds of rocks on the basis of their appearance and simple physical properties			
Compare and group together a variety of everyday materials on the basis of their simple physical properties		**No specific 'materials' topic in Year 3 PoS, however, chn will:**	**Compare and group materials together, according to whether they are solids, liquids or gases.**	**Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets**	
Chn can explore everyday materials in order to compare and group materials based on their physical properties.		Links to 'Forces & Magnets': Chn to compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, how things move on different surfaces as well as identify, compare and group magnetic and non-magnetic materials. Links to 'Light': Chn to Investigate reflective materials or which materials are best for making shadows.	Chn to understand the terms: solid, liquid and gas Chn to understand the properties of liquids, solids and gases and group materials according to this criteria	Chn can group materials based on their properties on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.	
	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching		**Observe that some materials change state when they are heated or cooled and measure or research the temperature at which this happens in degrees °c**		
	Chn to know the ways in which some materials can change shape through squashing, bending, twisting and stretching.		Chn to explore everyday examples of materials changing state when they are heated or cooled in order to be able to link changing state with temperature		

			Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature	**Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution**	
				Chn understand that some materials will dissolve in liquid to form a solution	
				Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating	
				Chn can use their knowledge of SLG to decide how mixtures might be separated.	
				Demonstrate that dissolving, mixing and changes of state are reversible changes	
				Chn know that dissolving, mixing and changes of state are reversible changes	
				Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.	
				Chn can explain that some changes, result in the formation of new materials and this change is usually irreversible.	