



St. John the Evangelist Catholic Academy - Progression in Science



Progression in Scientific knowledge, concepts & skills	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	KS3
Materials Working Scientifically	Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about the differences between materials and changes	Explore the natural world around them, making observations and drawing pictures of animals and plants. Know some similarities and differences between the natural world around them and contrasting environments Understand some important	Identify and name a range of materials (wood, plastic, glass, metal, water and rock) Describe physical properties of everyday materials Classify and group according to a range of physical properties	Know the uses of different everyday materials (wood, metal, plastic, glass, rock, brick, paper, cardboard) Classify and group materials based on their uses Know that solid objects can be changed by		Compare and group solids, liquids and gases Know that some materials change state (heating and cooling; no baking) Identify the part played by evaporation and condensation in the water cycle	Compare and group everyday materials based on their properties including their hardness, solubility, transparency, conductivity (<i>electrical and thermal</i>) and response to magnets Know and investigate through dissolving and mixing reversible and irreversible changes		The particulate nature of matter Atoms, elements and compounds Pure and impure substances Energetics The Periodic Table Chemical reactions



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	they notice.	processes and changes in the natural world around them, including the seasons and changing states of matter		squashing, bending, twisting and stretching			Know that some changes result in the formation of new materials Use prior knowledge of solids, liquids and gases to know how mixtures might be separated (filtering, sieving and evaporating) Use comparative and fair tests to give reasons for uses of everyday materials		
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Possible Learning Challenge Questions			Which materials should the Three Little Pigs have used to build their house?	What is our school made of?		How would we survive without water?	Could you be a police investigator?		
			What do Aliens think of life on planet Earth?	Which materials have been used to build our church?					