



Paganel Primary School Curriculum Planning – science

Year 5

Topics:

- Animals including humans
- Forces
- Living things and their habitats
- Earth and Space
- Properties and changes of materials

National Curriculum Skills and Knowledge:

Science	Knowledge and Understanding	Autumn	Spring	Summer	Skills	Autumn	Spring	Summer
Animals including humans	describe the changes as humans develop to old age				planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary			
Forces	identify the effects of air resistance, water resistance and friction, that act between moving surfaces				taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate			
	recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect				recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs			
Living things and their habitats	describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird				using test results to make predictions to set up further comparative and fair tests			
	describe the life process of reproduction in some plants and animals				reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations			
Earth and Space	describe the movement of the Earth and other planets relative to the sun in the solar system				identifying scientific evidence that has been used to support or refute ideas or arguments			
	describe the movement of the moon relative to the Earth				planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary			
	describe the sun, Earth and moon as approximately spherical bodies							
	use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky							
	explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object							
Properties and changes of materials	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							
	know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution							

	use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating				
	give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic				
	demonstrate 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				