



Name		Class of	
Science: Y4			
Statements	15	27	39 including 5 KPIs
Attainment	Year 4 Emerging	Year 4 Developing	Year 4 Secure

Working Scientifically- LKS2

Incert Assessment AT1

To ask relevant questions and use different types of scientific enquiries to answer them.	To set up simple practical enquiries, comparative and fair tests.	To make systematic and careful observations and where appropriate take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	To report findings from scientific enquiries including oral and written explanations, displays or presentations of results and conclusions	To use straight forward scientific evidence to answer questions or support their findings
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Y4 science- 45 statements	
Biology	
Animals including humans	I can identify producers, predators, prey, and examples of these.
	I can interpret food chains and gain information.
	can construct different food chains and label animals with their titles (producer, primary consumer, secondary consumer, tertiary consumer).
	I understand what the digestive system does
	I can describe simple functions of each part of the digestive system: mouth, teeth, tongue, oesophagus, stomach, large and small intestine, anus).
	I can identify the different types of teeth in the human body: incisors, canine, pre-molar and molar.
	can explain the functions of different types of teeth.
Living things and habitats	I use my knowledge of basic life processes (MRS NERG) to describe the differences between plants and animals (for example: animals clearly move/excrete – plants are less obvious).
	I can suggest ways in which an animal is suited to its environment
	I explain why different organisms are found in different habitats because of differences in environmental factors.
	I can identify ways in which an environment can change or be altered.
	I can identify why changes to an environment could be dangerous for the living things found there.
	I can describe how animals and plants in two different environments have adapted.
	I can use a classification key to group living things.
Chemistry	
Materials: States of matter	I can understand the properties of different states of matter. (solids hold their shape; liquids form a pool not a pile; gases escape from an unsealed container).
	I can describe the structure of solids, liquids and gases.
	I can create a representation of the particles in solids, liquids and gases.
	I can group materials according to whether they are solids, liquids or gases.
	I can record changes in state when objects are heated or cooled. (water – ice, water, water vapour)

	Note – avoid using heat where chemical changes occur e.g. baking or burning
	I can measure the temperature in degrees Celcius when changes in state occur in different materials (water, chocolate, butter, cream)
	I can research about changes in state with extreme temperatures. (E.g. iron melts/oxygen condenses)
	I can identify the part played by evaporation and condensation in the water cycle.
	I can explain how the rate of evaporation changes in water based on the temperature.
Physics	
Electricity	I understand what electricity is (a form of energy resulting from the existence of electrical current).
	I understand that some items require electricity to work and function.
	I can group items, which use an alternating current (mains electricity) or direct current (a battery/cell)
	I can identify common conductors and insulators.
	I understand the uses of different conductors and insulators.
	I can identify each component of an electrical circuit (cells, wires, bulbs, buzzers & switches).
	I can construct a simple series circuit.
	I can draw a pictorial representation of a circuit (NOT using symbols – these to be taught in Y6).
	I can explain how a switch works and why they are needed (to open and close a circuit and stop the electrical current).
	I can investigate the way that bulbs work in different circuits (exploring the brightness of bulbs).
	I can identify whether a bulb will light or not based on the circuit.
	I can give reasons why a bulb does not light up in an electrical circuit.
Sound	I understand that sounds are made through vibrations.
	I can identify different sources of sound.
	I can recognise that sounds travel from a source to an ear.
	I can investigate ways that different mediums absorb sound.
	I can investigate patterns between the pitch of a sound and features of the object that produced it (different types of instruments, water in bottles, ruler flicked on table).
	I can investigate patterns between the volume of a sound and the strength of the vibrations that produced it.
	I understand that sound travels in waves.
	I understand that the amplitude of waves effects the volume (taller the waves, louder the sound).
	I understand that the speed of vibrations effect the pitch (closer the waves, higher the pitch).
	I can explain how sound can travel through solids, liquids and gasses but not a vacuum (sound energy travels from particle to particle).