

Science Skills and Knowledge



Knowledge Progression

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Year 1/2 Cycle 1	Can I name some body parts?	Can I explain that objects are made from materials? Can I name a variety of materials?	Can I name the four seasons and say changes that are associated with them?	Can I recall a variety of materials and some of their properties?	Can I use the terms carnivore, herbivore and omnivore correctly?	Can I explain how plants and animals need each other? Can I name some common plants and animals?
Year 1/2 Cycle 2	Can I use the term 'offspring' accurately? Can I explain how to obtain a healthy body?	Can I name the four seasons and explain changes that are associated with them?	Can I observe how objects are made from materials? Can I name a variety of materials? Can I use the terms 'natural' and 'man made' correctly?	Can I use the terms 'dead' 'alive' and 'never alive' correctly?	Can I describe a habitat and/ or microhabitat an animal is suited for?	Can I use the terms 'deciduous' and 'evergreen' correctly? Can I name the basic parts of a plant? Can I name some common trees?
Year 3/4 Cycle 1	Can I name and describe the functions of the main parts of the musculoskeletal system? Can I describe the different diets of animals?		Can I explain what 'dark' is? Can I explain what might cause a shadow's size to change? Can I explain in basic terms, we mean when we say that light has reflected off a surface?	Can I name, locate and describe the parts of a plant involved in transporting water and nutrients? Can I describe the requirements of plants for life and growth?	Can I name the three different states of matter and describe the characteristics of each state? Can I say what causes different materials to change state? Can I describe the water cycle, using words related to changes of state?	
Year 3/4 Cycle 2	Can I use the term 'vibration' to explain how sounds are created? Can I explain how sounds travel differently through different materials? Can I explain how vibrations are different in sounds with higher and lower pitches and volumes?	Can I explain how fossils are formed? Can I show I understand what soil is made of?	Can I name a variety of forces, and say what effects forces can have on an object? Can I name some magnetic and non-magnetic materials? Can I explain the effect of magnetism, using words like 'attract' and 'repel'?	Can I explain how environmental changes may have an impact on some living things? Can I use the terms 'predator' and 'prey' correctly?	Can I name the different types of teeth that humans have and say what they are used for? Can I name and describe the functions of the main parts of the digestive system?	Can I name appliances that run on electricity? Can I name some parts of a simple electrical circuit?
Year 5/6 Cycle 1	Can I explain how light travels from a source and name some light sources? Can I explain, using a diagram, how travelling light enables us to see objects? Can I explain how travelling light affects the shape of shadows?	Can I describe the effects of simple forces that involve contact (air and water resistance and friction)? Can I describe what gravity is and its effects? Can I identify levers, gears and pulleys and describe what they are used for?	Can I explain how fossils can provide evidence for evolution? Can I use the idea of inheritance, variation and adaptation to describe how living things have changed over time and evolved? Can I use the word 'adaptation' correctly?	Can I name some subdivisions of classification? Can I use the term microorganism correctly?	Can I explain the life cycle of mammals, amphibians, insects and birds? Can I draw or explain the human ageing process? Can I name, locate and describe the functions of the parts of a plant involved in reproduction?	Can I describe the properties of materials and explain why this makes them suitable for certain purposes? Can I describe some everyday situations when dissolving occurs? Can I name and describe four different ways of separating materials? Can I explain, with reasons, whether changes in materials are reversible or not?
Year 5/6 Cycle 2	Can I name and describe the functions of the main parts of the circulatory system? Can I describe the effects of diet, exercise, drugs and lifestyle on how the body functions?	Can I describe the shape of the Sun, Moon and Earth, and give some evidence for how we know their shape? Can I describe the relative movement of the Sun, Moon and Earth? Can I explain why the Sun appears to move across the sky? Can I explain what causes us to have day and night?		Can I recognise a variety of circuit symbols? Can I explain the effect that a higher voltage might have on the components in a circuit? Can I explain how our understanding of electricity has changed over time?	Do I know some changes that children go through during puberty?	Can I describe the properties of materials and explain why this makes them suitable for certain purposes? Can I describe some everyday situations when dissolving occurs? Can I name and describe four different ways of separating materials? Can I explain, with reasons, whether changes in materials are reversible or not?

Science Skills and Progression



Skills Progression						
Year 1/2 Cycle 1	Do I use my senses to perform an investigation?	Do I group objects based on their material and/ or basic properties?	Do I record weather data and begin to analyse it?	Do I choose an appropriate material for a given purpose?	Do I classify animals using a diagram?	Do I undertake an experiment to test what plants 'need'?
Year 1/2 Cycle 2	Do I perform an experiment to see how my body performs before and after exercise?	Do I record weather data and begin to analyse it	Do I group objects based on their material and/ or basic properties?	Do I record some data from an experiment?	Do I draw food chains?	Do I use my observations to think like a scientist?
Year 3/4 Cycle 1	Do I describe the effect that different liquids have on our teeth, using an experiment I've observed as evidence? Do I explain why keeping healthy is important?		Do I draw diagrams explaining how a shadow is formed?	Do I discuss the conditions plants need to be successful?	Do I classify items by their state of matter?	
Year 3/4 Cycle 2	Do I find and discuss patterns in sounds?	Do I classify and group rocks based on their properties?	Do I use a magnet as equipment, to classify materials according to whether they're magnetic or not? Do I plan and carry out an investigation involving forces? Do I explain what the results of my experiment tell us?	Do I classify animals accurately? Do I construct and interpret food chains?	Do I investigate teeth and hypothesise the animal's diet?	Do I construct a simple circuit? Do I work safely and understand the danger electricity poses?
Year 5/6 Cycle 1	Do I research the work that Sir Isaac Newton did into light and explain it in my own words, using diagrams?	Do I experiment with how devices and mechanisms can affect forces and describe my results?		Do I classify plants, animals and micro-organisms based on their characteristics?	Do I compare the reproductive processes and life cycles of different animals?	Do I compare and group together everyday materials on the basis of their properties? Do I plan an experiment linked to dissolving solids in liquids? Do I separate a range of materials using different techniques?
Year 5/6 Cycle 2	Do I record my pulse accurately? Do I accurately record data from an investigation into heart rate?	Do I research given questions about space and the planets?		Do I draw a circuit diagram for a simple circuit using the correct symbols? Do I use apparatus to construct and control a series circuit? Do I make and explain predictions about how changing a circuit might affect how components function?		Do I compare and group together everyday materials on the basis of their properties? Do I plan an experiment linked to dissolving solids in liquids? Do I separate a range of materials using different techniques?