



		Those below expectations	Expectations	Those above expectations
Y1	Plants		- Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees - Identify and describe the basic structure of a variety of common flowering plants, including trees. - Know the subject specific vocabulary	
	Animals		- Identify & names common animals including fish, amphibians, reptiles, birds and mammals - Identify & name a variety of common animals that are carnivores, herbivores & omnivores. - Name parts of animals and humans. - Name the senses - Know the subject specific vocabulary	
	Materials		- identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock - Describe the simple physical properties of a variety of everyday materials compare and group together a variety of everyday materials on the basis of their simple physical properties. - Know the subject specific vocabulary	
	Seasons		- Describe weather associated with the seasons and how day length varies. - Know the subject specific vocabulary	
Y2	Plants		- Describe how seeds and bulbs grow into plants. - Describe how plants need water, light & suitable temperature to grow/stay healthy - Know the subject specific vocabulary	
	Animals		- Know that animals (incl. humans) have offspring that grow into adults - Describe the basic needs of animals (incl. humans) for survival (air water food) - Describe the importance of human exercise, eating the right amount of different foods, and hygiene - Know the subject specific vocabulary	

	Living Things		• Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other • Identify and name a variety of plants and animals in their habitats, including micro-habitats • Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. • Know the subject specific vocabulary	
	Materials		• Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. • Know the subject specific vocabulary.	



		Those below expectations		Those above expectations
Y3	Plants		- Describe the functions of parts of flowering plants: roots, stem/trunk, leaves & flowers. - Explore requirements for plant growth (air, light, water, nutrients from soil, room to grow) & how it varies from plant to plant. - Explain the way water is transported within a plant - Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation & dispersal - Know the subject specific vocabulary	
	Animals		- Identify that animals (incl. humans) need the right types & amount of nutrition, that they can't make their own food, they get nutrition from what they eat - Identify that humans and some animals have skeletons & muscles for support, protection & movement. - Know the subject specific vocabulary	
	Materials-Rocks		- Compare & group different types of rocks based on appearance & physical properties - Describe how fossils are formed when things that have lived are trapped within rock - Recognise soils are made from rocks and organic matter - Know the subject specific vocabulary	
	Light		- Know that light is reflected from surfaces - Know that light from the sun can be dangerous and that there are ways to protect their eyes - Know that shadows are formed when the light from a light source is blocked by an opaque object - Find patterns in the way that the size of shadows change. - Know the subject specific vocabulary	
	Forces		- Know that some forces need contact between two objects, but magnetic forces can act at a distance - Know that magnets attract or repel each other and attract some materials and not others - Predict whether two magnets will attract or repel each other, depending on which poles are facing. - Know the subject specific vocabulary	



		Those below expectations		Those above expectations
Y4	Living Things		- Recognise that living things can be grouped in a variety of ways - Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment - Recognise that environments can change and that this can sometimes pose dangers to living things. - Know the subject specific vocabulary.	
	Animals		- Describe the simple functions of the basic parts of the digestive system in humans - Identify the different types of teeth in humans and their simple functions - Construct and interpret a variety of food chains, identifying producers, predators and prey. - Know the subject specific vocabulary.	
	Electricity		- Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers - Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery - Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit - Recognise some common conductors and insulators, and associate metals with being good conductors. - Know the subject specific vocabulary.	
	Sound		- Identify how sounds are made, associating some of them with something vibrating - Recognise that vibrations from sounds travel through a medium to the ear - Find patterns between the pitch of a sound and features of the object that produced it - Find patterns between the volume of a sound and the strength of the vibrations that produced it - Recognise that sounds get fainter as the distance from the sound source increases. - Know the subject specific vocabulary.	
	States of Matter		Compare and group materials together, according to whether they are solids, liquids or gases	

			• Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) • Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. • Know the subject specific vocabulary.	
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 KALEIDOSCOPE Multi Academy Trust Kaleidoscope Multi Academy Trust Science Milestones				
		Those below expectations		Those above expectations
Y5	Living things and their habitats		• describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird • describe the life process of reproduction in some plants and animals. • Know the subject specific vocabulary.	
	Animals including humans		• Describe the changes as humans develop to old age (incl. changes in puberty). • Identify & name the main parts of the human circulatory system, & describe the functions of the heart, blood vessels and blood. • Recognise the impact of diet, exercise, drugs & lifestyle on the way their bodies function. • Describe the ways in which nutrients and water are transported within animals incl. humans. • Know the subject specific vocabulary.	
	Earth and Space		• Describe the movement of the Earth, and other planets, relative to the Sun in the solar system • Describe the movement of the Moon relative to the Earth • 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. • Know the subject specific vocabulary.	

	Forces		• Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object • Identify the effects of air resistance, water resistance and friction, that act between moving surfaces • Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. • Know the subject specific vocabulary.	
	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 • Know the subject specific vocabulary.	

	 KALEIDOSCOPE Multi Academy Trust	Kaleidoscope Multi Academy Trust Science Milestones		
Y6	Living things and their habitats		- Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals - Give reasons for classifying plants and animals based on specific characteristics. - Know the subject specific vocabulary	
	Animals including Humans		- Identify & name the main parts of the human circulatory system, & describe the functions of the heart, blood vessels and blood. - Recognise the impact of diet, exercise, drugs & lifestyle on the way their bodies function. - Know the subject specific vocabulary	
	Light		- Recognise that light appears to travel in straight lines - Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye - Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes - Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. - Know the subject specific vocabulary.	
	Electricity		- Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit - Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches - Use recognised symbols when representing a simple circuit in a diagram. - Know the subject specific vocabulary.	
	Evolution and Inheritance		- Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago - Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents - Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. - Know the subject specific vocabulary.	