

Plants/Seasonal Changes/All Living Things

Year 1 Developing	Year 1 Expected	Year 2 Expected	Year 3 Expected	Year 4 Expected	Year 5 Expected	Year 6 Expected	Year 6 Exceeded
Discuss the features of the environment and make verbal and pictorial observations	Identify and name at least 3 different common plants from a selection of garden plants, wild plants and trees, deciduous and evergreen	Observe and describe how different seeds and bulbs grow into mature plants. Through discussions, written diaries and images.	Explore the role of the flower (pollination, seed formation, seed dispersal) Understand that some vegetable plants have flowers and be able to explain this	Identify and name living plants and animals in the local and wider environment using classification keys they create.	Describe how living things are classified into broad groups according to observable characteristics including behaviour and similar prey		
Understand that all plants have roots and be able to discuss this	Identify and describe the basic structure of variety of common flowering plants using these key words: roots, stem/trunk, leaves, flower		Identify and describe the functions of variety of common flowering plants through practical application (roots, stem, leaves, flower)	Recognise that environmental changes (including human impact and natural changes) can pose dangers to all living things			
Be able to talk about the needs of a plant to survive e.g. needing food and water	Discover that plants need water, light and food to stay healthy	Describe how plants stay healthy and give at least 1 example of how different plants need different things	Explore how the living requirements vary between different plants giving examples (e.g. some flowers need constant sunlight whereas others need some shade)				
Know that weather changes throughout the year and explain how this changes their day to day lives	Observe changes across the four seasons and name the seasons confidently. Explain through pictures and writing how the weather changes throughout the seasons and how day length varies						

					Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird Describe the life processes and reproduction in some plants and animals		
					Give reasons for classifying plants and animals based on their specific characteristics		

**Animals Including Humans/Evolution**

Year 1 Developing	Year 1 Expected	Year 2 Expected	Year 3 Expected	Year 4 Expected	Year 5 Expected	Year 6 Expected	Year 6 Exceeded
Name at least 3 animals that would be found in Yorkshire	Identify and name a variety of common animals and sort them into birds, fish, amphibians, reptiles and mammals					Recognise that living things have changed over time and fossils provide information dating back millions of years	
Understand that some animals eat plants and some animals eat other animals	Identify and name a variety of common animals and sort them into carnivores, herbivores and omnivores			Construct a complex food chain identifying producers, consumers, predators and prey with at least 4 steps		Understand that living things produce offspring and normally offspring are not identical to parents, understand that this is evolution	
	Describe and compare a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)			Identify and name living plants and animals in the local and wider environment using classification keys they have designed		Identify how animals and plants are adapted to suit their environment and adaptation may lead to evolution. Compare animals and plants in different habitats and how they have adapted.	
Identify, name, draw and label the basic parts of the human body which are	Describe the basic needs of animals and humans (food, water, air)	Identify animals (and humans) need correct nutrition and they get nutrition from what they eat,	Be able to explain that animals (including humans) can not make their own food compared	Describe the simple functions of the human digestive system. Identify the different types of teeth in humans and their		Identify and name the main parts of the human circulatory system and explain functions of heart, blood vessels and blood	

associated with the senses			with plants	functions.			
Explain how we look after our bodies in simple terms e.g. staying clean, drinking water and eating our meals	Describe how to live a healthy lifestyle through exercise and healthy eating	Describe the importance for humans of exercise, eating the right amounts of different types of food through a balanced diet	Identify that humans and some animals have skeletons and muscles for support, protection and movement			Describe how nutrients and water are transported within animals and humans, specifically referring to the blood vessels	
Notice that babies grow into adults	Notice that animals, including humans, have offspring which grow into adults through nurturing			Describe the changes to the human body as humans develop to old age		Explain how diet, exercise and drugs impact upon the way bodies function throughout this life cycle	

### Everyday Materials/Forces/States of Matter/Properties and Changes of Materials

Year 1 Developing	Year 1 Expected	Year 2 Expected	Year 3 Expected	Year 4 Expected	Year 5 Expected	Year 6 Expected	Year 6 Exceeded
		Explain that a magnet only attracts metal. Use scientific vocabulary (attract and repel)	Notice that some forces need contact between two objects, but magnetic forces can act at a distance Observe that magnets can attract and repel each other and some materials Compare how things move on different surfaces, explain the role of friction Describe a magnet as having two poles. Predict whether 2 magnets will attract or repel based on the position of the poles Compare and group everyday materials on the basis of their magnetism		Understand that force and motion can be transferred through mechanical devices. Explain how an unsupported object will fall to the Earth. Explore how surface area and air resistance changes how an object falls		
Explain that	Identify and name	Identify and compare a	Compare different	Compare and group	Compare and group materials		

objects feel different and this means they are made from different things	a variety of everyday materials including wood, plastic, glass, metal, water and rock Distinguish between an object and the material it is made from	variety of everyday materials including wood, plastic, glass, metal, water, brick, paper, cardboard and rock	materials and explain why different materials are chosen to make objects Classify materials into solids, liquids and gases	materials together based on their properties, explain how groupings may change based on state of matter	based on evidence from comparative fair tests (hardness, solubility, transparency, conductivity and response to magnets). Identify effects of air resistance, water resistance and friction on objects when they move		
	Describe the simple physical properties of everyday materials using appropriate language (hard, soft, bendy, stiff, clear) Compare and group materials on the basis of their simple properties	Explore how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. Compare how different materials can change shape	Begin to understand how materials change state (chocolate can be melted to become a liquid)	Understand evaporation and condensation within the water cycle - associate evaporation with temperature changes Observe that some materials change state when they are heated or cooled (not only solid to liquid) and measure or research the temperature at which this happens in degrees Celsius (°C)	Demonstrate that dissolving, mixing and changes of state are reversible changes. Explain some changes result in formation of new materials and this is not usually reversible Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. Know some materials 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 to separate mixtures (filtering, sieving, evaporating)		

**Light/Sound**

Year 1 Developing	Year 1 Expected	Year 2 Expected	Year 3 Expected	Year 4 Expected	Year 5 Expected	Year 6 Expected	Year 6 Exceeded
			Recognise that light is needed in order to see things and that dark is the absence of light			Understand that light travels in a straight line	
			Notice that light is reflected from surfaces for us to see			Use the journey light takes to explain how we see things	
			Recognise that light from the sun can be			Use the idea that light travels in a straight line to	

			dangerous and that there are ways to protect their eyes			explain that objects are seen because they reflect light into the eye	
			Explain how shadows are formed when the light from a light source is blocked by a solid object				
			Find patterns in the way that the size of shadows change. Through experiments throughout the day			Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.	
				Identify how sounds are made - through vibration			
				Recognise that vibrations from sounds travel through a medium to the ear			
				Find the pattern between volume of a sound and strength of vibrations produced			
				Find the pattern between the pitch of sound and features of the object which produces it			
				Recognise that sounds get fainter as the distance from the sound source increases, thinking about the sound waves			

### Electricity

Year 1 Developing	Year 1 Expected	Year 2 Expected	Year 3 Expected	Year 4 Expected	Year 5 Expected	Year 6 Expected	Year 6 Exceeded
				Construct a simple series circuit identifying basic parts including cells, wires, bulbs, switches and buzzers		Use recognised symbols when representing a simple circuit in a diagram	
				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		Associate the brightness of a lamp or the volume of a buzzer with the number of cells in a circuit. Compare and give reasons for variations in how components function	

				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 common conductors and insulators - associate that metal is a good conductor			

### Earth and Space

Year 1 Developing	Year 1 Expected	Year 2 Expected	Year 3 Expected	Year 4 Expected	Year 5 Expected	Year 6 Expected	Year 6 Exceeded
					Describe the movement of 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 relatively spherical bodies		
					Use the idea of the Earth's rotation to explain day and night		