

Henleaze Junior School	Henleaze Junior School	Henleaze Junior School	Henleaze Junior School
Assessment Framework	Assessment Framework	Assessment Framework	Assessment Framework
Non-negotiable expectations	Non-negotiable expectations	Non-negotiable expectations	Non-negotiable expectations
Science	Science	Science	Science
By the end of Year 3 children should be able to	By the end of Year 4 children should be able to	By the end of Year 5 children should be able to	By the end of Year 6 children should be able to
	Living Things	Living Things	Living Things
	Recognise that living things can be grouped in a variety of ways	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals
	Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment	Describe the life process of reproduction in some plants and animals	Give reasons for classifying plants and animals based on specific characteristics
	Recognise that environments can change and that this can sometimes pose dangers to living things		
Animals	Animals	Animals	Animals
Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat	Describe the simple functions of the basic parts of the digestive system in humans	Describe the changes as humans develop to old age	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood
Identify that humans and some other animals have skeletons and muscles for support, protection and movement	Identify the different types of teeth in humans and their simple functions		Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function
	Construct and interpret a variety of food chains, identifying producers, predators and prey		Describe the ways in which nutrients and water are transported within animals, including humans
Plants			Evolution
Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers			Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant			Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
Investigate the way in which water is transported within plants			Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution
Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal			
Rocks	States of Matter	Materials	
Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties	Compare and group materials together, according to whether they are solids, liquids or gases	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	
Describe in simple terms how fossils are formed when things that have lived are trapped within rock	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)	Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution	
Recognise that soils are made from rocks and organic matter	Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature	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	
	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		
Light			Light
Recognise that they need light in order to see things and that dark is the absence of light			Recognise that light appears to travel in straight lines
Notice that light is reflected from surfaces			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
Recognise that light from the sun can be dangerous and that there are ways to protect their eyes			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
Recognise that shadows are formed when the light from a light source is blocked by an opaque object			Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them
Find patterns in the way that the size of shadows change			
		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	
Forces	Electricity	Forces	Electricity
Compare how things move on different surfaces	Identify common appliances that run on electricity	Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object	Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
Notice that some forces need contact between two objects, but magnetic forces can act at a distance	Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers	Identify the effects of air resistance, water resistance and friction, that act between moving surfaces	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
Observe how magnets attract or repel each other and attract some materials and not others	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 some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect	Use recognised symbols when representing a simple circuit in a diagram
Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials	Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit		
Describe magnets as having two poles	Recognise some common conductors and insulators, and associate metals with being good conductors		
Predict whether two magnets will attract or repel each other, depending on which poles are facing			
Working Scientifically	Working Scientifically	Working Scientifically	Working Scientifically
Sometimes ask relevant questions and use different types of scientific enquiries to answer them	Ask relevant questions and use different types of scientific enquiries to answer them	Begin to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
Set up simple practical enquiries and begin to use fair tests	Set up simple practical enquiries, comparative and fair tests	Take measurements, using a range of scientific equipment, with increasing accuracy and precision and begin to take repeat readings when appropriate	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
Begin to make systematic and careful observations and, where appropriate, take accurate measurements using mm, cm and m	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers, clocks and rulers	Record data and results of increasing complexity using scientific diagrams and labels, tables, bar and line graphs	Record data and results of increasing complexity and more independently using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
Begin to gather, record, classify and present data in a variety of ways to help in answering questions	Gather, record, classify and present data in a variety of ways to help in answering questions	Use test results to make predictions to set up further comparative and fair tests, suggesting reasons for predictions when asked	Use test results to independently make predictions to set up further comparative and fair tests and suggesting reasons for predictions
Record findings using simple scientific language, drawings, labelled diagrams, bar charts, and tables	Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	Report and present findings from enquiries, including conclusions and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations	Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
Begin to report on findings from enquiries, including oral and written explanations, presentations of results and conclusions	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	Begin to identify scientific evidence that has been used to support or refute ideas or arguments	Identify scientific evidence that has been used to support or refute ideas or arguments through research, debates and presenting their ideas
Make predictions and draw simple conclusions	Make predictions and use results to draw simple conclusions, suggest improvements and raise further questions		
Begin to identify differences and similarities	Identify differences, similarities or changes related to simple scientific ideas and processes		
Begin to use straightforward scientific evidence to support their findings	Use straightforward scientific evidence to answer questions or to support their findings		