White Hall Academy Progression of Skills document

Science

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
The Natural World	Animals including humans	Animals including humans	Animals including humans	Animals including humans	Animals including humans	Animals including humans
	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. I know the names of different types of animals. I can say whether these animals are fish, amphibians, reptiles, birds or mammals.	Notice that animals, including humans, have offspring which grow into adults. I know that animals have babies which grow into adults. I can recognise that laying eggs is the same as giving birth to live babies as both grow into adults.	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. I can say that animals who cannot cook like we do get the right amount of nutrition from the food they eat. I can recognise that humans eat different types of food to get the nutrition that we need.	Describe the simple functions of the basic parts of the digestive system in humans. I can describe how the human stomach works in simple terms. I can describe how the intestines work in simple terms. I can describe how the throat works in simple terms.	Describe the changes as humans develop to old age. I can describe how humans change as they get older.	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. I can name the main parts of the human circulatory system. I can describe how the heart works. I can describe how blood keeps us alive. I can describe the role of blood vessels in our body.
	Identify and name a variety of common animals that are carnivores, herbivores and omnivores. I can name some animals that are carnivores (only eat meat). I can name some animals that are herbivores (only eat plants). I can name some animals that are omnivores (eat plants and meat).	Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). I can describe what an animal needs to survive. I can describe what a human needs to survive and how that might be different to other animals.	Identify that humans and some other animals have skeletons and muscles for support, protection and movement. I can say why a human, and some animals need a skeleton for support. I can begin to describe how a skeleton offers protection to our bodies. I can begin to describe how animals and humans use their skeletons and muscles to move.	Identify the different types of teeth in humans and their simple functions. I can identify the different types of human teeth. I can describe the role of each type of tooth when it comes to the digestion of food.		Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. I can describe the positive effects that diet, exercise and lifestyle has on the human body. I can describe the negative effects that diet, lack of exercise, drugs and lifestyle has on the human body.
	Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets). I can compare and describe how the structure of common animals, including pets are different to each other.	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. I can describe why we need to exercise regularly. I can describe why we need to eat the right amounts of different food types and not all of one type.		Construct and interpret a variety of food chains, identifying producers, predators and prey. I can create a simple food chain. I can label which parts of the food chain are the producers. I can label which parts of the food chain are the prey.		Describe the ways in which nutrients and water are transported within animals, including humans. I can describe how nutrients and water move around human and animals' bodies.

		I can describe why we need to keep ourselves clean and healthy.		I can label which parts of the food chain are predators.		
	Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense I can identify and name different parts of the human body. I can draw and label these parts of the human body. I can say which of our five senses is used with that part of the body. (e.g. smell is used with nose)					

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
The Natural World	Seasonal Changes	Living things & their habitats		Living things & their habitats	Living things & their habitats	Living things & their habitats
	Observe changes across the 4 seasons. I can observe and describe how an environment changes across the four seasons and name what those seasons are.	Explore and compare the differences between things that are living, dead, and things that have never been alive. I can recognise and describe the differences between something that is alive and something that is dead. I can recognise when something has never lived and can describe how this is different to something that is alive or dead.		Recognise that living things can be grouped in a variety of ways. I can recognise and begin to group living things in different ways e.g by environment, by whether they are predator or prey etc.	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. I can compare two different living beings and compare and describe the differences in their life cycle.	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. I can describe how we classify and group living things into groups based on what we can see that is the same and different about them. This includes plants, animals and other organisms.
	Observe and describe weather associated with the seasons and how day length varies. I can observe and describe the weather that we see in different seasons. I can describe how day length changes across the seasons.	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. I can recognise that living things live in specific habitats and that they do not live as well outside of these habitats.		Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. Through exploration I can use a classification key to group and identify a variety of living things within my local environment.	Describe the life process of reproduction in some plants and animals. I can describe the process of reproduction in some animals. I can describe the process of reproduction in plants. I can recognise how both these processes are different,	Give reasons for classifying plants and animals based on specific characteristics. I can explain why I have chosen to classify plants and animals in a specific way based on characteristics I have described.

		I can describe how these habitats meet the needs of the living things living in them.		I can also use a classification key to identify living things in a wider environment.	but end with the same outcome.	
		Identify and name a variety of plants and animals in their habitats, including microhabitats. I can identify and name plants found within a specific habitat. I can identify and name animals within a specific habitat.		Recognise that environments can change and that this can sometimes pose dangers to living things. I can recognise that environments can change and can describe ways in which they might change. I can describe how these changes may affect the organisms living in them.		
		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. I can describe how animals obtain their food from plants and other animals. I can create a simple food chain to show how an animal gets its food from different plants and animals.				

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
						Evolution & 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. I can recognise that living things have changed over time. I can recognise that fossils are records of how living things have changed over time.
						Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. I can identify and explain how animals and plants are adapted to environment they live in. I can explain that by adapting to an environment, this may lead to evolution of an animal or plant.
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Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
The Natural World	Plants	Plants	Plants			
	Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. I can recognise and name a variety of plants found in the wild and in the garden. I can recognise some common trees, and say which ones are always green (evergreen) and which ones lose their leaves (deciduous).	Observe and describe how seeds and bulbs grow into mature plants. I can observe and describe how seeds and bulbs grow into plants.	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. I can describe how different parts of flower parts work including the roots, stem, leaves ands flowers.			
	Identify and describe the basic structure of a variety of common flowering plants, including trees. I can identify the different parts of common parts including trees. I can describe these basic parts.	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. I can find out and describe how and why plants need water, light and the right temperature to grow. I can suggest what happens if they get too much or too little of one of these things in simple terms.	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. I can compare how different types of plants need different amounts of air, light, water, nutrients and room to be able to grow.			

			I can recognise that while one plant needs this amount of water/light/nutrients and room to grow, but if I put a different type of plant in those conditions it may harm the plant.			
			Investigate the way in which water is transported within plants. I can discover and explain how water is moved within plants.			
			Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. I can explore and describe how pollination and seed formation helps creates seeds in the life cycle of plants. I can describe different ways in which plants disperse their seeds.			

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
The Natural World	Everyday Materials	Uses of everyday materials and forces		States of matter (materials)	Properties and changes in materials	
	Distinguish between an object and the material from which it is made. I can recognise the difference between an object and the material that it is made from.	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. I can identify a variety of everyday materials. I can compare these materials and say which is better for different uses.		Compare and group materials together, according to whether they are solids, liquids or gases. I can compare materials and group them based on whether they are solids, liquids or gasses. I can recognise what a solid, liquid and gas is.	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. I can compare and group materials based on properties such as their hardness, solubility, transparency, conductivity and whether they are magnetic.	
	Identify and name a variety of everyday materials, including	Find out how the shapes of solid objects made from some materials can be changed by		Observe that some materials change state when they are heated or cooled, and	Know that some materials will dissolve in liquid to form a solution, and describe how to	

	wood, plastic, glass, metal, water, and rock. I can identify and name a variety of everyday materials.	squashing, bending, twisting and stretching. I can discover how we can change the shapes of objects can be changed by squashing, bending, twisting and stretching.		measure or research the temperature at which this happens in degrees Celsius (°C). I can observe that materials change state when they are either heated or cooled. Through research I can find out what temperature different materials may melt, turn into a gas or turn into a solid.	recover a substance from a solution. I can recognise that some materials can dissolve into a liquid to make a solution. I can describe how to get the solid back from the solution.	
	Describe the simple physical properties of a variety of everyday materials. I can describe the properties of a material.			Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. I can identify how evaporation and condensation are important for the water cycle. I can describe how temperature speeds up or slows down the rate of evaporation and condensation.	Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. I can use my knowledge of materials to decide the best way of separating a mixture of different materials. Either through the use of sieving, filtering or evaporating.	
	Compare and group together a variety of everyday materials on the basis of their simple physical properties. I can compare different materials based on their properties. I can group these materials together based on their properties.				Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. After carrying out investigations I can say which material may be best for a given use.	
					Demonstrate that dissolving, mixing and changes of state are reversible changes. I understand that dissolving, mixing and changes of state are not permanent changes. I can suggest how to reverse these 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. I can explain how some changes are not reversable and suggest why they may not be reversable.	

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			Forces and magnets		Forces	
			Compare how things move on different surfaces. I can conduct an investigation to compare how objects move differently on different surfaces.		Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. I can describe how objects that are unsupported will fall towards the ground. I can describe that gravity is a force acting between the Earth and a falling object.	
			Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance. I can recognise that some forces need contact between two objects to have an effect. I can recognise that magnetic forces do not need contact to have an effect.		Identify the effects of air resistance, water resistance and friction, that act between moving surfaces. I can identify and describe the effects that air and water resistance, as well as friction have on an object moving on different surfaces.	
			Observe how magnets attract or repel each other and attract some materials and not others.		Recognise that some mechanisms including levers, pulleys and gears allow a	

			I can observe and describe the effects that two magnets have on each other. I can describe how magnets affect some materials, and do not affect others.		smaller force to have a greater effect. I can recognise and describe how some mechanisms allow a small force to have a bigger effect.	
			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. I can compare and group objects based on whether they are attracted to a magnet or not. I can identify some materials that are magnetic.			
			Describe magnets as having 2 poles. I can identify and name the two poles on a magnet.			
			Predict whether 2 magnets will attract or repel each other, depending on which poles are facing. I can use my knowledge of magnets to predict whether two magnets will attract or repel each other based on the way their poles are facing.			

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			Rocks			
			Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. I can compare and group together rocks based on their appearance. I can compare and group together rocks based on their physical properties.			
			Describe in simple terms how fossils are formed when things that have lived are trapped within rock.			

			I can describe how a fossil is made over millions of years.			
			Recognise that soils are made from rocks and organic matter. I can describe what makes a soil and how different soils may be different based upon what is in them.			

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
The Natural World			Light			Light
			Recognise that they need light in order to see things and that dark is the absence of light. I can recognise that we need light to see. I can recognise that darkness is when there is no light.			Recognise that light appears to travel in straight lines. I can understand that light appears to travel in straight lines.
			Notice that light is reflected from surfaces. I can understand that certain surfaces reflect light.			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. Through my understanding of light travelling in straight lines, I can explain how we see objects because they either give off or reflect light into our eyes.
			Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. I can recognise that light from the sun can be harmful. I can describe ways that we can protect ourselves from the harmful light of the sun.			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. I can explain how we see things using the knowledge that light travels from light sources to our eyes, or from a light source to an object and then to our eyes.

			Recognise that shadows are formed when the light from a light source is blocked by an opaque object. I can recognise and describe how a shadow is made based on light being blocked by an object.			Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. I can use my knowledge of light to describe why an object's shadow has the same shape as the object.
			Find patterns in the way that the size of shadows change. I can experiment with ways of changing the size of a shadow. I can explain what I discovered about how to change the size of a shadow.			

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
The Natural World				Sound		
				Identify how sounds are made, associating some of them with something vibrating. I can identify how a sound is made. I can describe how a sound is made using the idea of something vibrating.		
				Recognise that vibrations from sounds travel through a medium to the ear. I can recognise that vibrations travel through a medium (usually the air) to reach the ear so we can hear them.		
				Find patterns between the pitch of a sound and features of the object that produced it. I can discover patterns between the pitch of a sound and		

				properties of the object that made it.		
				Find patterns between the volume of a sound and the strength of the vibrations that produced it. I can find patterns between the volume of a sound and the strength of the vibrations.		
				Recognise that sounds get fainter as the distance from the sound source increases. I can recognise that the further away I am from a sound the quieter it is.		

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				Electricity		Electricity
				Identify common appliances that run on electricity. I can name some common appliances that run on electricity.		Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. I can recognise that the brightness of a bulb, or the volume of the buzzer is connected with the voltage and number of cells used in the circuit.
				Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. I can construct a simple series circuit. I can name all the parts within my 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. I can compare and give reasons for why components may function in different ways.
				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.		Use recognised symbols when representing a simple circuit in a diagram. I can use symbols for components to draw a diagram representing a simple circuit.

				I can identify whether a lamp will light or not in a series circuit based on whether or not the lamp is part of a complete circuit.		
				Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. I can recognise that a switch opens or closes a circuit based on whether it is turned on or off. I can reason whether or not a lamp will light based on whether a switch is turned on or off.		
				Recognise some common conductors and insulators, and associate metals with being good conductors. I can recognise some common conductors and insulators. I can describe whether certain metals make good conductors or not.		

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					Earth & Space	
					Describe the movement of the Earth and other planets relative to the sun in the solar system. I can describe how the Earth and other planets move in relation to the sun.	
					Describe the movement of the moon relative to the Earth. I can describe how the moon moves around the Earth.	
					Describe the sun, Earth and moon as approximately spherical bodies. I can describe the sun, earth and moon as almost perfect spheres.	
					Use the idea of the Earth's rotation to explain day and	

					night and the apparent movement of the sun across the sky. I can use the idea of the Earth's rotation to talk about the sky we see during the day and the night and how the sun moves across the sky.	

Working Scientifically

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
The Natural World	Gathering and presenting data	Gathering and presenting data	Gathering and presenting data	Gathering and presenting data	Gathering and presenting data	Gathering and presenting data
	Use simple equipment provided. I can use equipment that is provided for me.	Sort things into groups according to own criteria and choose a title for sorting. I can sort data, objects, and equipment into groups based on criteria I have selected. I can also choose an appropriate title for sorting.	Begin to raise their own questions about the world around them. I can begin to ask questions about the world around me.	With increasing independence make systematic and careful observations. I can make more careful observations on my own without support from an adult.	Make accurate and precise measurements. I can make accurate measurements using equipment provided.	Make accurate and precise measurements. I can select the appropriate equipment for making accurate measurements.
	Use a simple sources to find answers. I can use resources provided to find answers to questions that I have.	Record observations over time. I can record my observations over a period of time.	Begin to make some decisions about which types of enquiry will be the best way of answering questions. I can decide based on what type of enquiry will be the best way to answer my question.	Measure accurately using new equipment. I can take accurate measurements using new equipment.	Decide what to observe, how long to observe for and whether to repeat them. I can decide what to observe, how long to observe it for and whether I need to take any repeat measurements.	Decide what to observe, how long to observe for and whether to repeat them. I can decide how many repeats may be needed to get accurate data, as well as deciding the best interval for taking recordings.
	Investigate key concepts. I can investigate concepts about a topic I am learning about.	Talk about different drawings and charts. I can compare and talk about the differences between my drawings and charts.	Plan how to carry out a simple investigation. I can plan how to carry out an investigation.	Present results in charts or graphs. I can present my results in a chart or graph and select which is appropriate for my investigation.	Take accurate and precise measurements using standard units. I can take accurate and precise measurements using appropriate units.	Take accurate and precise measurements using standard units N, g, kg, mm, cm, mins, seconds, cm^2V, km/h, m per sec, m/ sec. I can select the appropriate standard unit for the measurements I am making.
	Present findings using drawings and simple sentences. I can represent my findings using drawings. I can represent my findings using simple sentences.	Perform a simple test. I can perform a simple test to find out whether a question is right or wrong.	Begin to make systematic and careful observations. I can take more careful observations during my enquiries.	Make systematic and careful observations over time. I can take reliable measurements over a period of time for my enquiry.	Select equipment on my own and can explain how to use it accurately. I can select the equipment I need from a variety of offered pieces of equipment and explain how I will use it accurately.	Select equipment on my own and can explain how to use it accurately. I can plan what equipment I will need for an enquiry and explain how I will use it accurately.
		Ask a simple question and consider how that question could be answered.	Decide what to observe and how long to collect observations.	Help decide which variables to keep the same and which to change.	Set up a range of comparative and fair tests.	Record data and results of increasing complexity.

		I can ask a question and think about how I might answer it.	I can decide what to observe and how long to collect observations for.	I can begin to make decisions for what variables I am going to change and which to keep the same for my enquiries.	I can set up a range of similar tests. I can ensure that I keep all these tests fair.	I can record more complex data using appropriate methods.
		Make simple measurements. I can make measurements using equipment provided.	Measure accurately using equipment with which they are familiar. I can measure accurately with equipment I am familiar with.	Collect data in a variety of ways, including labelled diagrams, bar charts and tables. I can collect data using different methods such as diagrams, charts and tables.	Begin to explain which variables need to be controlled and why. I can begin to explain why variables need to be controlled and how they may affect the enquiry.	Choose how best to present data. I can decide how I am going to present my data.
		Identify similarities and differences. I can identify and explain similarities and differences.	Record measurements on simple tables. I can record my measurements in simple tables.		Begin to suggest improvements to my test, giving reasons. I can begin to suggest improvements to my enquiry and why.	Communicate findings using detailed scientific language. I can share my findings using the correct scientific language.
			Begin to help decide which variables to keep the same and which to change. I can begin to decide which variables to keep the same and which to change though I may sometimes still need help with this.		Begin to record data and results of increasing complexity. I can begin to record more complex data from my enquiries.	
			Use simple keys. I can begin to use simple keys to make interpreting my data easier.		Begin to develop my own keys and other information records to classify and describe. I can create my own keys and records to classify and describe my data.	
			Decide upon criteria for sorting and classifying. I can decide on the rules for classifying and sorting data.			

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
The Natural World	Interpreting Results/ Evidence	Interpreting Results/ Evidence	Interpreting Results/ Evidence	Interpreting Results/ Evidence	Interpreting Results/ Evidence	Interpreting Results/ Evidence
	Talk about the investigation / enquiry being carried out and discuss what they have found out. I can talk about my investigation and share what I have found.	Discuss / talk about their investigations. I can have a discussion about the investigation I have carried out.	Begin to collect data in a variety of ways, including labelled diagrams, bar charts and tables.	Look for patterns, changes, similarities and differences. I can look for patterns, changes, similarities and differences within data I have collected.	Begin to draw scientific, causal conclusions using the results of an enquiry to justify my ideas.	Draw scientific, causal conclusions using the results of an enquiry to justify my ideas.

			I can begin to use different ways of collecting data for my investigations.		I can begin to make conclusions based on scientific knowledge and the results of my enquiry.	I can make more confident conclusions based on my results and prior scientific knowledge.
	Make comparisons using simple scientific vocabulary. I can compare my data using scientific language that I have been taught.	Make comparisons in the data / observations. I can begin to make comparisons between my observations.	Record findings using simple scientific vocabulary. I can record my findings scientific language.	Decide how to record and analyse data by selecting from a range of taught methods. I can decide how to record and analyse my data by selecting the right method for my enquiry.	Begin to communicate findings using detailed scientific language. I can use more complex scientific language to report my findings.	Distinguish opinion and facts. I understand the difference between scientific facts and opinions.
	Use photographs / diagrams to record answers to how/why questions. I can use photographs and pictures to record answers to questions I may have.	Use scientific vocabulary when making comparisons. I can begin to use scientific vocabulary that has been given to me when I am making comparisons.	Begin to communicate findings using simple scientific language. I can use simple scientific language to communicate my findings with others.	Talk about and identify differences and similarities in the properties or behaviour of living things, materials and other scientific phenomena. I can talk about any differences and similarities that occur in living things, materials and other scientific experiences.		Use my findings to make predictions and set up further enquiries. I can use my data to make predictions about further enquiries I may wish to carry out.
		Explain whether what happened was what they expected and if not why not. I can explain whether what happened in my enquiry was what I was expecting or not.	Suggest improvements to their test. I can begin to make suggestions about how to improve my test.	Identify new questions arising from data. I can identify any new questions that come from my data.		
		Collect data on templates provided. I can record data on tables that have been provided to me.		Make predictions for new values within or beyond the data they have collected. I can begin to make predictions for values I have not yet made based on data I have already collected.		

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
The Natural World	Explaining	Explaining	Explaining	Explaining	Explaining	Explaining
	Write a simple sentence to describe what they observed / compared. I can write a sentence to describe what I have observed.	Talk about their findings using the science vocabulary related to the key concept. I can talk about what I have found during my enquiry.	Begin to draw simple conclusions based on the results of my enquiry. I can begin to make a simple conclusion based on what I have found within my enquiry.	Draw simple conclusions based on the results of my enquiry. Using my results, I can make a simple conclusion.	Begin to explain my conclusion using scientific knowledge and understanding. I can begin to link my scientific knowledge with the conclusion I am making about my enquiry.	Explain my conclusion using scientific knowledge and understanding. I can use my scientific knowledge to explain any conclusions that I have made.
	Use scientific vocabulary to make comparisons.	Use diagrams, photos, pictures to show findings in a simple form.	Answer my questions using the results of my enquiry.	Answer my questions using the results of my enquiry. I can confidently answer my questions using my results.	Begin to distinguish opinion and facts.	Begin to use abstract models to explain my ideas. I can begin to use abstract models to explain ideas to others.

	I can use scientific vocabulary to make comparisons during my enquiry.	I can use photos and diagrams to explain what I have found out.	I can begin to use my results to answer my questions about my enquiry.		I can begin to recognise the difference between opinions and facts.	
	Link classroom experience to outside world. I can begin to apply what I have learned in school to experiences in the real world.	Use own observations to suggest why something happened. I can use my observations to suggest why it may have happened.	Begin to use my findings to make new predictions, suggest improvements and think of new questions. I can begin to use my findings to make new predictions or ask new questions.	Use my findings to make new predictions, suggest improvements and think of new questions. I can use my findings to make new predictions or ask new questions.	Begin to use my findings to make predictions and set up further enquiries. I can use what I have discovered to make predictions and begin to plan further enquiries.	Explain my ideas with scientific reasons. I can use my scientific knowledge to back up my ideas.
	Discuss and compare with peers what happened and what they found out. I can have a discussion and compare with my classmates about what happened and whether it was the same or different.		Begin to think of cause and effect in my explanations. I can begin to link my explanations with what may have caused it and what effect it may have made.	Consider cause and effect in my explanations. I can link my explanations with what may have caused it and what effect it may have made.	Begin to use abstract models to explain my ideas. I can begin to use abstract models to explain ideas to others.	Use scientific conventions eg trends, rogue result, support prediction. I can use my data, and any trends or errors I spot in it, to support my prediction.

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
The Natural World				Exploring and planning	Exploring and planning	Exploring and planning
				Raise their own questions about the world around them. I can begin to ask questions about what I may wish to find out about the world around me.	Begin to independently explore ideas and ask my own questions about scientific phenomena. I can begin to explore these ideas on my own and generate the questions I may wish to answer.	Plan different types of scientific enquiry to answer questions. I can play a variety of different types of enquiry to answer my questions.
				Decide which different types of scientific enquiry to answer questions. I can select an appropriate enquiry type to answer my question.	Begin to plan different types of scientific enquiry to answer questions. With guidance I can begin to plan different types of enquiry to answer my questions.	Decide which variables to control. I can select appropriate variables to control within my enquiries.
				Think about what they can measure and make accurate measurements. I can decide what I may wish to measure, and what I may want to use to measure it when planning an enquiry.	Begin to decide which variables to control. With support I can begin to decide which variables I may wish to control from a list.	
				Plan how they will record results. I can plan how I will record my results.		