Science Coverage

Programmes of study progression map

Knowledge			
	Autumn	**Spring**	**Summer**
Nursery	Talk about the differences between materials and changes they notice.	Talk about the differences between materials and changes they notice. Begin to understand the need to respect and care for the natural environment and all living things	Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal. Begin to understand the need to respect and care for the natural environment and all living things
Rec	The children will learn about their bodies and staying healthy. The children will begin to understand some important processes and changes in the natural world around them, including the seasons Children will explore the world around them, they will investigate, discover, be intrigued and discuss animals that are nocturnal and diurnal, space, light and dark. • To recognise some environments that are different to the once in which they live. • Understand the effect of changing seasons on the natural world around them.	The children will begin to explore the ecologically diverse world (production of food), the connections between plants and animals and the world around them. They will make observations and drawing pictures of animals. They will learn about similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Children will begin to understand animals that live in Britain and similar and different animals in other countries drawing on knowledge from stories, nonfiction texts and maps. They will explore the natural world around them, making observations and drawing pictures of animals. They will begin to know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. They will become aware that dinosaurs, woolly mammoths, dodo/animals were once alive but are now extinct. They will understand some important processes and changes in the natural world around them, including extinction of animals.	The children will explore the natural world around them, making observations and drawing pictures of animals and plants. They will begin to understand what is needed to grow and environments which are suitable and not suitable. They will know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. • To recognise some environments that are different to the once in which they live.
EYFS	***We understand all children have different starting points, experiences and needs, we will always cater for and focus on the individual child and their individual progress.*** **End Goal for End of Nursery:** • We aim for them to use all of their senses to explore and discuss the differences between materials and changes. • We want them to explore the natural environment and materials and discuss the similarities and differences within their properties using the wide range of vocabulary learnt. • We aim for children to understand how plants and animals grow and to understand the importance of being respectful and taking care of our natural world. We would like them to show interests in different occupations and how things work discussing different forces. **End Goal for End of Reception:** • They will explore the natural world around them, making observations and drawing pictures of animals and plants. • They will know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. • They will understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. **The above knowledge is specific to Science taken from aspect Understanding the World. However, it does relate to all other development matters and ELGs.**		

Knowledge	Plants	Animals inc humans	Everyday materials	Seasonal Changes	Living things and their habitats	Uses of everyday materials	Rocks	Light	Forces & Magnets	States of Matter	Sound	Electricity	Properties & Changes of Materials	Earth & Space	Forces	Evolution & Inheritance
Year 1	X	X	X	X												
Year 2	X	X			X	X										
Year 3	X	X					X	X	X							
Year 4		X			X					X	X	X				
Year 5		X			X								X	X	X	
Year 6		X			X			X				X				X

*Year 1 ‘Seasonal Changes’ picks up how day and night and seasons occur based on the Earth’s rotations which is covered in more detail in Y5 ‘Earth & Space’

*Year 1, Year 2, Year 4 and Year 5 all pick up materials

*Year 6 ‘Evolution & Inheritance’ picks up some aspects of fossils from Y3’s Rocks unit

*Year 3 ‘Forces & Magnets’ is built upon in Year 5 ‘Forces’

	Programme of Study	Term	Objectives	Key Vocabulary
Year 1	Plants	Summer 2	***Knowledge*** * Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees * Identify and name the basic structure of a variety of common flowering plants, including trees ***Working Scientifically*** * Identify and classify * Observe closely, using simple equipment * use their observations and ideas to suggest answers to questions * perform simple tests	Deciduous, Evergreen trees, Leaves, Flowers (blossom), Petals, Fruit, Roots, Bulb, Seed, Trunk, Branches, Stem
Year 2	Plants	Summer 1	***Knowledge*** * observe and describe how seeds and bulbs grow into mature plants * find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. ***Working Scientifically:*** * observing closely, using simple equipment * performing simple tests * identifying and classifying	Seeds, Bulbs, Water, Light, Temperature, Growth

Year 3	Plants	Summer 2	***Knowledge*** * identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers	Air, Light, Water, Nutrients, Soil, Reproduction, Transportation, Dispersal, Pollination, Flower
			* explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. * 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 * investigate the way in which water is transported within plants ***Working Scientifically*** * identify differences, similarities or changes related to simple scientific ideas and processes * set up simple practical enquiries, comparative and fair tests * record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables * gather, record, classify and present data in a variety of ways to help in answering questions	

	Programme of Study	**Term**	**Objectives**	**Key Vocabulary**

Year 1	Animals inc Humans	Spring 1 – Spring 2	***Knowledge*** * identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals * identify and name a variety of common animals that are carnivores, herbivores and omnivores ***Working Scientifically*** * identify and classify * observe closely, using simple equipment * ask simple questions and recognise that they can be answered in different ways	Fish, Reptiles, Mammals, Birds, Amphibians (+ examples of each) Herbivore, Omnivore, Carnivore, Leg, Arm, Elbow, Head, Ear, Nose, Back, Wings, Beak

Year 2	Animals inc Humans	Summer 2	***Knowledge*** * notice that animals, including humans, have offspring which grow into adults * find out about and describe the basic needs of animals, including humans, for survival (water, food and air) * describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. ***Working Scientificially*** * observing closely, using simple equipment * performing simple tests * using their observations and ideas to suggest answers to questions * gathering and recording data to help in answering questions. * ask simple questions and recognise that they can be answered in different ways	Survival, Water, Air, Food, Adult, Baby, Offspring, Kitten, Calf, Puppy, Exercise, Hygiene

Year 3	Animals inc Humans	Summer 1	***Knowledge*** * 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 * identify that humans and some other animals have skeletons and muscles for support, protection and movement. ***Working Scientifically*** * using straightforward scientific evidence to answer questions or to support their findings. * identifying differences, similarities or changes related to simple scientific ideas and processes * setting up simple practical enquiries * gather, record, classify and present data in a variety of ways to help in answering questions	Movement, Muscles, Bones, Skull, Nutrition, Skeletons,

Year 4	Animals inc Humans	Spring 2	***Knowledge*** * 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. ***Working Scientifically*** * setting up simple practical enquiries, comparative and fair tests * ask relevant questions and use different types of scientific enquiries to answer them * gathering, recording, classifying and presenting data in a variety of ways to help in answering questions * identifying differences, similarities or changes related to simple scientific ideas and processes * using straightforward scientific evidence to answer questions or to support their findings. * reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	Mouth, Tongue, Teeth, Oesophagus, Stomach, Small Intestine, Large Intestine, Herbivore, Carnivore, Canine, Incisor, Molar
Year 5	Animals inc Humans	Summer 1	***Knowledge*** * describe the changes as humans develop to old age ***Working Scientifically:*** * using test results to make predictions to set up further comparative and fair tests * identifying scientific evidence that has been used to support or refute ideas or arguments.	Foetus, Embryo, Womb, Gestation, Baby, Toddler, Teenager, Elderly, Growth, Development, Puberty

			* recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	
Year 6	Animals inc Humans	Summer 2	***Knowledge*** * identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood * recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function * describe the ways in which nutrients and water are transported within animals, including humans. ***Working Scientifically*** * planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary * taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate * recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs * using test results to make predictions to set up further comparative and fair tests	Circulatory, Heart, Blood Vessels, Veins, Arteries, Oxygenated, Deoxygenated, Valve, Exercise, Respiration

	Programme of Study	**Term**	**Objectives**	**Key Vocabulary**

Year 1	Materials	Autumn 1 – Identifying	***Knowledge***	Wood, Plastic, Glass, Paper, Water, Metal, Rock, Hard, Soft, Bendy, Rough, Smooth
		Autumn 2 – Comparing	* distinguish between an object and the material from which it is made * 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. ***Working Scientifically*** * ask simple questions and recognise that they can be answered in different ways * identify and classify * perform simple tests * gather and record data to help In answering questions	

Year 2	Materials	Spring 1 – Spring 2	***Knowledge*** * 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. ***Working Scientifically*** * Identifying and classifying * Observing closely using simple equipment * Asking simple questions and recognising that they can be answered in different ways * Gathering and recording data to help in answering questions	Hard, Soft, Stretchy, Stiff, Shiny, Dull, Rough, Smooth, Bendy, Waterproof, Absorbent, Opaque, Transparent Brick, Paper, Fabrics, Squashing, Bending, Twisting, Stretching Elastic, Foil
Year 3				

Year 4	Materials	Autumn 1	***Knowledge*** * 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. ***Working Scientifically*** * gathering, recording, classifying and presenting data in a variety of ways to help in answering questions * recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables * using straightforward scientific evidence to answer questions or to support their findings. * identifying differences, similarities or changes related to simple scientific ideas and processes	Solid, Liquid, Gas, Evaporation, Condensation, Particles, Temperature, Freezing, Heating
Year 5	Materials	Autumn 1 – Autumn 2	***Knowledge*** * 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 * give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic * know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution	Hardness, Solubility, Transparency, Conductivity, Magnetic, Filter, Evaporation, Dissolving, Mixing

			* use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating	

			* 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. ***Working Scientifically*** * record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs * 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 * take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate * planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary * using test results to make predictions to set up further comparative and fair tests	
Year 6				

	Programme of Study	Term	Objectives	Key Vocabulary
Year 1	Seasonal Changes	Summer 1	***Knowledge*** * observe changes across the four seasons * observe and describe weather associated with the seasons and how day length varies. ***Working Scientifically*** * observe closely using simple equipment * gather and record data to help in answering questions * use their observations and ideas to suggest answers to questions	Summer, Spring, Autumn, Winter, Sun, Day, Moon, Night, Light, Dark, weather
Year 2				
Year 3				
Year 4				

Year 5	Earth & Space	Spring 2	***Knowledge*** * 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 ***Working Scientifically*** * identifying scientific evidence that has been used to support or refute ideas or arguments. * reporting and presenting 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 * recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	Earth, Sun, Moon, Axis, Rotation, Day, Night, Phases of the Moon, star, constellation
Year 6				

	Programme of Study	Term	Objectives	Key Vocabulary

Year 1				
Year 2	Living things & their habitats	Autumn 1 – Autumn 2	***Knowledge*** * explore and compare the differences between things that are living, dead, and things that have never been alive * 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. * identify that most living things live in habitats to which they are suited and describe how different habitats provide for	Living, Dead, Habitat, Energy, Food chain, Predator, Prey, Woodland, Pond, Desert
			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 ***Working Scientifically*** * identifying and classifying * observing closely, using simple equipment * using their observations and ideas to suggest answers to questions * gathering and recording data to help in answering questions.	
Year 3				

Year 4	Living things & their habitats	Summer 1 – Summer 2	***Knowledge*** * 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. ***Working Scientifically*** * gathering, recording, classifying and presenting data in a variety of ways to help in answering questions * reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions * using straightforward scientific evidence to answer questions or to support their findings.	Vertebrates, Fish, Amphibians, Reptiles, Birds, Mammals, Invertebrates, Snails, Slugs, Worms, Spiders, Insects, Environment, Habitats
Year 5	Living things & their habitats	Summer 2	***Knowledge*** * 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. ***Working Scientifically*** * reporting and presenting 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 * identifying scientific evidence that has been used to support or refute ideas or arguments.	Mammal, Reproduction, Insect, Amphibian, Bird, Offspring

Year 6	Living things & their habitats	Autumn 1	***Knowledge*** * 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. ***Working Scientifically*** * identifying scientific evidence that has been used to support or refute ideas or arguments. * recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs * reporting and presenting 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	Classification, Vertebrates, Invertebrates, Micro-organisms, Amphibians, Reptiles, Mammals, Insects

	Programme of Study	**Term**	**Objectives**	**Key Vocabulary**
Year 1				
Year 2				

Year 3	Rocks	Spring 1	***Knowledge*** * compare and group together different kinds of rocks on the basis of their appearance and simple physical properties * describe in simple terms how fossils are formed when things that have lived are trapped within rock * recognise that soils are made from rocks and organic matter ***Working Scientifically*** * use straightforward scientific evidence to answer questions or to support their findings * making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers * gathering, recording, classifying and presenting data in a variety of ways to help in answering questions * identifying differences, similarities or changes related to simple scientific ideas and processes	Rock, stone, pebble, boulder, grain, crystals, layers, hard, soft, texture, absorb water, soil, fossil, marble, chalk, granite, sandstone, slate, soil, peat, sandy/chalk/clay soil
Year 4				
Year 5				

Year 6	Evolution & Inheritance	Spring 1	***Knowledge*** * 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. ***Working Scientifically*** * identifying scientific evidence that has been used to support or refute ideas or arguments. * reporting and presenting 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 * recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	Fossils, Adaptation, Evolution, Characteristics, Reproduction, Genetics

	Programme of Study	**Term**	**Objectives**	**Key Vocabulary**

Year 1				
Year 2				
Year 3	Light	Spring 2	***Knowledge*** * recognise that they need light in order to see things and that dark is the absence of light * notice that light is reflected from surfaces * recognise that light from the sun can be dangerous and that there are ways to protect their eyes * recognise 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. ***Working Scientifically*** * setting up simple practical enquiries, comparative and fair tests * ask relevant questions and use different types of scientific enquiries to answer them * making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers * report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	Light, Shadows, Mirror, Reflective, Dark, Reflection, opaque, translucent, transparent
Year 4				

Year 5				
Year 6	Light	Autumn 2	***Knowledge*** * 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. ***Working Scientifically*** * take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate * use test results to make predictions to set up further comparative and fair test * 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 * Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	Refraction, Reflection, Light, Spectrum, Rainbow, Colour,

	Programme of Study	Term	Objectives	Key Vocabulary
Year 1				
Year 2				

Year 3	Forces & Magnets	Autumn 1 – Autumn 2	***Knowledge*** * compare how things move on different surfaces * notice that some forces need contact between two objects, but magnetic forces can act at a distance * observe how magnets attract or repel each other and attract some materials and not others * 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 * describe magnets as having two poles * predict whether two magnets will attract or repel each other, depending on which poles are facing. ***Working Scientifically*** * ask relevant questions and use different types of scientific enquiries to answer them * set up simple practical enquiries, comparative and fair tests * record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables * report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	Magnetic, Force, Contact, Attract, Repel, Friction, Poles, Push, Pull
			* use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	
Year 4				

Year 5	Forces	Spring 1	***Knowledge*** * 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. ***Working Scientifically*** * plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary * record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs * taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate * using test results to make predictions to set up further comparative and fair tests * reporting and presenting 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	Air resistance, Water resistance, Friction, Gravity, Newton, Gears, Pulleys
Year 6				

	Programme of Study	Term	Objectives	Key Vocabulary
Year 1				
Year 2				
Year 3				
Year 4	Sound	Spring 1	***Knowledge*** * 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. ***Working Scientifically*** * Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including data logger * Setting up simple practical enquiries, comparative and fair tests.	Volume, Vibration, Wave, Pitch, Tone, Speaker

			* Using straightforward scientific evidence to answer questions or to support their findings. * Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. * Reporting findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	
Year 5				
Year 6				

	Programme of Study	Term	Objectives	Key Vocabulary
Year 1				
Year 2				
Year 3				

Year 4	Electricity	Autumn 2	***Knowledge*** * identify common appliances that run on 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. ***Working Scientifically*** * set up simple practical enquiries, * ask relevant questions and use different types of scientific enquiries to answer them * record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables * use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions * make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment	Cells, Wires, Bulbs, Switches, Buzzers, Battery, Circuit, Series, Conductors, Insulators N.B. Children in year 4 do not need to use standard symbols as this is taught in year 6
Year 5				

Year 6	Electricity	Spring 2	***Knowledge*** * associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit	Cells, Wires, Bulbs, Switches, Buzzers, Battery, Circuit, Series, Conductors, Insulators, Amps, Volts, Cell
			* 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. ***Working Scientifically*** * planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary * recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs * using test results to make predictions to set up further comparative and fair tests	NB Children do not need to understand what voltage is but will use volts and voltage to describe different batteries. The words cells and batteries are now used interchangeably