



Now Press Play experience links

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery: Understanding of the world:	-To notice and become familiar with new environments. -To ask questions and talk about where they live. -Have a sense of immediate family.	-Use all senses to describe natural materials. -Talk about materials and their similarities and differences. (houses)	-To explore how things, work. - To describe what they hear, feel and see outside. (emergency services)	- To learn about life cycles; butterfly (the hungry caterpillar) -To show care for living things.	-To know about different places including habitats and terrain. (sea creatures)	-To explore the world around them. -Begin to understand the need to respect and care for the natural environment and all living things.
Reception: Understanding of the world:	-Enjoys joining in with family customs and routines. -Have a sense of immediate family.	-Looks closely at similarities, differences, patterns and change -Notice details in their environment. -Operate mechanical toys.	-Describe what they see, hear and feel whilst outside. -Explore how things work.	-Children know about similarities and differences in relation to places, objects, materials and living things. -They talk about the feature of their own immediate environment and how environments might vary from one another. -Plant seeds and care for growing plants. -They make observations of animals and plants and explain why some things occur, and talk about changes.	-Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes -Explore collections of materials. -Talk about differences between materials and changes they notice.	-Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes -To use knowledge from observation, discussions and stories. -Know similarities and differences between the natural world and contrasting environments.
Year 1 Science Computing	Seasonal change Autumn Seasons Seasonal Changes (1SC) i) observe changes across the four seasons. ii) observe and describe weather associated with the seasons and	Everyday Materials Everyday Materials i. distinguishes between an object and the material from which it is made ii. identify and name a variety of everyday materials, including wood,	Seasonal change Winter i) observe changes across the four seasons. ii) observe and describe weather associated with the seasons and how day length varies.	Seasonal change Spring +/- Animals Animals i) identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals ii) identify and name a variety of common animals that are	Seasonal change Summer +/- Plants Plants i) identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. ii) identify and describe the basic structure of a variety of common flowering plants, including trees.	Apply and consolidate Working scientifically (KS1 WS) i) asking simple questions and recognising that they can be answered in different ways ii) observing closely, using simple equipment.



	<p>how day length varies.</p> <p>Scientist study: Inez Fung</p> <p>Animals, including humans Animals / Humans</p> <p>iii) identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense</p>	<p>plastic, glass, metal, water and rock</p> <p>iii. describe the simple physical properties of a variety of everyday materials</p> <p>iv. compare and group together a variety of everyday materials on the basis of their simple physical properties</p>		<p>carnivores, herbivores and omnivores</p> <p>ii) describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)</p> <p>Scientist study: Amy Vedder</p>	<p>Scientist study: Marie Clark Taylor</p>	<p>iii) performing simple tests.</p> <p>iv) identifying and classifying</p> <p>v) using their observations and ideas to suggest answers to questions</p>
	<p>Summer 1 Creating media - Digital Painting <u>KS1 Computing</u> Use technology purposefully to create, organise, store, manipulate, and retrieve digital content <u>KS1 Art and Design</u> To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form, and space About the work of a range of artists, craft makers, and designers, describing the differences and similarities between different practices and disciplines and making links to their own work To describe what different freehand tools do To use the shape tool and the line tools To make careful choices when painting a digital picture To explain why I chose the tools I used To use a computer on my own to paint a picture To compare painting a picture on a computer and on paper</p>			<p>Summer 2 Creating media – Digital writing <u>KS1 computing</u> Use technology purposefully to create, organise, store, manipulate, and retrieve digital content Use technology safely and respectfully, keeping personal information private <u>KS1 English – writing</u> saying out loud what they are going to write about composing a sentence orally before writing it sequencing sentences to form short narratives re-reading what they have written to check that it makes sense To use a computer to write To add and remove text on a computer To identify that the look of text can be changed on a computer To make careful choices when changing text To explain why I used the tools that I chose To compare typing on a computer to writing on paper</p>		
<p>Year 2</p> <p>Science</p> <p>Computing</p>	<p>Animals including humans Animals / Humans</p> <p>i) notice that animals, including humans, have offspring which grow into adults</p> <p>ii) find out about and describe the basic needs of animals, including humans,</p>	<p>Uses of everyday materials Everyday Materials</p> <p>i) identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p>ii) find out how the shapes of solid objects made from</p>	<p>Pre experience (revisit one or more areas from year 1) Seasons</p> <p>i) observe changes across the four seasons.</p> <p>ii) observe and describe weather associated with the seasons and how day length varies.</p>	<p>Plants Plants</p> <p>i) observe and describe how seeds and bulbs grow into mature plants.</p> <p>ii) find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p>	<p>Living things and their habitats Habitats</p> <p>i) explore and compare the differences between things that are living, dead, and things that have never been alive</p> <p>ii) identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic</p>	<p>Apply and consolidate Working scientifically (KS1 WS)</p> <p>i) asking simple questions and recognising that they can be answered in different ways</p> <p>ii) observing closely, using simple equipment.</p> <p>iii) performing simple tests.</p>



	<p>for survival (water, food and air)</p> <p>iii) describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</p> <p>Scientist study: David Attenborough</p>	<p>some materials can be changed by squashing, bending, twisting and stretching</p>		<p>Scientist study: George Forrest</p>	<p>needs of different kinds of animals and plants, and how they depend on each other</p> <p>iv) 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.</p> <p>v) identify and name a variety of plants and animals in their habitats, including microhabitats.</p> <p>vi) 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.</p> <p>Scientist study: Kate Humble</p>	<p>iv) identifying and classifying</p> <p>v) using their observations and ideas to suggest answers to questions</p> <p>Focus on the key scientific skills –enquiry based curriculum</p>
<p><u>Summer 1</u> Creating media – making music</p> <p><u>KS1 computing</u></p> <p>Use technology purposefully to create, organise, store, manipulate, and retrieve digital content</p> <p><u>KS1 Music</u></p> <p><i>Play tuned and untuned instruments musically</i></p> <p><i>Listen with concentration and understanding to a range of high-quality live and recorded music</i></p> <p><i>Experiment with, create, select, and combine sounds using the interrelated dimensions of music</i></p> <p>To say how music can make us feel</p> <p>To identify that there are patterns in music</p> <p>To experiment with sound using a computer</p> <p>To use a computer to create a musical pattern</p> <p>To create music for a purpose</p> <p>To review and refine our computer work</p>				<p><u>Summer 2</u> Data and information – Pictograms (builds On Year 1 unit on Data and Information)</p> <p><u>KS1 computing</u></p> <p>use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies</p> <p><u>KS1 Maths</u></p> <p><i>interpret and construct simple pictograms, tally charts, block diagrams and simple tables</i></p> <p><i>ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity</i></p> <p><i>ask and answer questions about totalling and comparing categorical data</i></p> <p>To recognise that we can count and compare objects using tally charts</p> <p>To recognise that objects can be represented as pictures</p> <p>To create a pictogram</p> <p>To select objects by attribute and make comparisons</p> <p>To recognise that people can be described by attributes</p> <p>To explain that we can present information using a computer</p>		



<p>Year 3</p> <p>Science</p> <p>Computing</p>	<p>Forces and magnets</p> <p>Forces and magnets</p> <ul style="list-style-type: none"> i. compare how things move on different surfaces ii. notice that some forces need contact between two objects, but magnetic forces can act at a distance iii. observe how magnets attract or repel each other and attract some materials and not others iv. 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 v. describe magnets as having two poles vi. predict whether two magnets will attract or repel each other, depending on which poles are facing 	<p>Animals including humans</p> <ul style="list-style-type: none"> i. 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 ii. Identify that humans and some other animals have skeletons and muscles for support, protection and movement <p>Scientist study: Jane Goodall</p>	<p>Light</p> <ul style="list-style-type: none"> I. recognise that they need light in order to see things and that dark is the absence of light II. notice that light is reflected from surfaces III. recognise that light from the sun can be dangerous and that there are ways to protect their eyes IV. recognise that shadows are formed when the light from a light source is blocked by an opaque object V. find patterns in the way that the size of shadows change 	<p>Rocks Rocks</p> <ul style="list-style-type: none"> i. compare and group together different kinds of rocks on the basis of their appearance and simple physical properties ii. describe in simple terms how fossils are formed when things that have lived are trapped within rock iii. recognise that soils are made from rocks and organic matter <p>Scientist study: Mary Anning</p>	<p>Plants Plants</p> <ul style="list-style-type: none"> i. identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers ii. 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 iii. investigate the way in which water is transported within plants iv. explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal <p>Scientist study: Danny Clarke / Ron Finley</p>	<p>Apply and consolidate</p> <p>Working Scientifically (LKS2)</p> <p>asking relevant questions and using different types of scientific enquiries to answer them.</p> <p>Use the core scientific skills</p>
	<p><u>Summer 1</u> Data and information – Branching databases (j2e)</p> <p><u>KS2 computing</u></p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p> <p>use technology safely, respectfully and responsibly</p> <p>To create questions with yes/no answers</p> <p>To identify the attributes needed to collect data about an object</p> <p>To create a branching database</p> <p>To explain why it is helpful for a database to be well structured</p> <p>To plan the structure of a branching database</p> <p>To independently create an identification tool</p>			<p><u>Summer 2</u> Programming A – Sequencing in music (scratch)</p> <p><u>KS2 computing</u></p> <p>Design, write, and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>Use logical reasoning to explain how some simple algorithms work, and to detect and correct errors in algorithms and programs</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <p>To explore a new programming environment</p> <p>To identify that commands have an outcome</p> <p>To explain that a program has a start</p> <p>To recognise that a sequence of commands can have an order</p> <p>To change the appearance of my project</p>		



				To create a project from a task description		
Year 4	States of matter	Sound	Electricity Electricity	Animals including humans (Teeth and Eating)	Living things	Apply and consolidate
Science Computing	Materials & Changing State i) compare and group materials together, according to whether they are solids, liquids or gases ii) 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) iii) identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature	i) identify how sounds are made, associating some of them with something vibrating ii) recognise that vibrations from sounds travel through a medium to the ear iii) find patterns between the pitch of a sound and features of the object that produced it iv) find patterns between the volume of a sound and the strength of the vibrations that produced it v) recognise that sounds get fainter as the distance from the sound source increases Scientist study: Ernst Mach	i) identify common appliances that run on electricity ii) construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers iii) 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 iv) recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit v) recognise some common conductors and insulators, and associate metals with being good conductors Scientist study: Garrett Morgan	i) describe the simple functions of the basic parts of the digestive system in humans ii) identify the different types of teeth in humans and their simple functions iii) construct and interpret a variety of food chains, identifying producers, predators and prey	i) recognise that environments can change and that this can sometimes pose dangers to living things ii) recognise that living things can be grouped in a variety of ways iii) explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment iv) recognise that environments can change and that this can sometimes pose dangers to living things Scientist study: Carl Linnaeus	Working Scientifically (LKS2) i) asking relevant questions and using different types of scientific enquiries to answer them ii) setting up simple practical enquiries, comparative and fair tests iii) making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers iv) gathering, recording, classifying and presenting data in a variety of ways to help in answering questions v) recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables vi) reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions vii) using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further 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
	<p>Summer 1_Programming A – Repetition in shapes <u>KS2 Computing</u> Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information To identify that accuracy in programming is important To create a program in a text-based language To explain what 'repeat' means To modify a count-controlled loop to produce a given outcome To decompose a task into small steps To create a program that uses count-controlled loops to produce a given outcome</p>			<p>Summer 2_Programming B – Repetition in games <u>KS2 Computing</u> Design, write, and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work, and to detect and correct errors in algorithms and programs Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information To develop the use of count-controlled loops in a different programming environment To explain that in programming there are infinite loops and count-controlled loops To develop a design that includes two or more loops which run at the same time To modify an infinite loop in a given program To design a project that includes repetition To create a project that includes repetition</p>		
Year 5/6	<p>Animals including humans</p> <p>i) Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</p> <p>ii) Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>iii) Describe the ways in which nutrients and water are transported within animals, including humans</p>	<p>Earth and Space Forces</p> <p>Mission to Mars</p> <p>i. Describe the movement of the Earth, and other planets, relative to the Sun in the solar system</p> <p>ii. Describe the movement of the Moon relative to the Earth</p> <p>iii. Describe the Sun, Earth and Moon as approximately spherical bodies</p> <p>iv. Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky</p>	<p>Evolution and Inheritance</p> <p>Evolution</p> <p>i. Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</p> <p>ii. Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p> <p>iii. Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution</p> <p>Scientist study: Charles Darwin</p>	<p>Living things and their habitats</p> <p>Plants</p> <p>i. 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</p> <p>ii. Give reasons for classifying plants and animals based on specific characteristics</p>	<p>Electricity Electricity</p> <p>i. Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</p> <p>ii. 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</p> <p>iii. Use recognised symbols when representing a simple circuit in a diagram</p> <p>Light</p> <p>i. Recognise that light appears to travel in straight lines</p>	<p>Apply and consolidate</p> <p>Working scientifically</p> <p>i. planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>ii. taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>iii. recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p>
Science						
Computing						
2021/2022						
Year 5 2022 onwards						



		<p>Scientist study: Dorothy Vaughan / Mary Jackson / Katherine Johnson / Christine Darden (hidden figures)</p>			<p>ii. 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</p> <p>iii. 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</p> <p>iv. Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them</p> <p>Scientist study: Alhazen ‘a father of modern optics’.</p>	<p>iv. using test results to make predictions to set up further comparative and fair tests</p> <p>v. 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</p> <p>vi. identifying scientific evidence that has been used to support or refute ideas or arguments</p>
<p>Summer 1 Creating media – Vector drawing <u>KS2 Computing</u> Select, use, and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems, and content that accomplish given goals, including collecting, analysing, evaluating, and presenting data and information. To identify that drawing tools can be used to produce different outcomes To create a vector drawing by combining shapes To use tools to achieve a desired effect To recognise that vector drawings consist of layers To group objects to make them easier to work with To apply what I have learned about vector drawings</p>			<p>Summer 2 Programming A – Variables in games <u>KS2 computing</u> Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information To define a ‘variable’ as something that is changeable To explain why a variable is used in a program To choose how to improve a game by using variables To design a project that builds on a given example To use my design to create a project To evaluate my project</p>			

COMPUTING UNDER REVIEW