

EYFS Computing: Overview

EYFS	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Whole school	Shared values: Excellence	Shared values: Responsibility and Respect	Shared values: Determination	Shared values: Independence	Shared values: Unity	Shared values: Trust
Statutory Early Learning Goal	Children require access to a range of technologies, both digital and non-digital in their early lives. Exploring with different technologies through play provides opportunities to develop skills that children will go on to develop in their lifetimes. Investigations, scientific inquiry and exploration are essential components of learning about and with technology both digitally and in the natural world. Through technology children have additional opportunities to learn across all areas in both formal and informal ways. Technologies should be seen as tools to learn both from and with, in order to integrate technology effectively within early years practice.					
Range	Range 1-2	Range 3	Range 4	Range 5	Range 6	Range 6
What a child might be doing	The beginnings of understanding technology lie in babies exploring and making sense of objects and how they behave.	Anticipates repeated sounds, sights and actions, e.g. when an adult demonstrates an action toy several times Shows interest in toys with buttons, flaps and simple mechanisms and begins to learn to operate them	Seeks to acquire basic skills in turning on and operating some digital equipment Operates mechanical toys, e.g. turns the knob on a wind-up toy or pulls back on a friction car Plays with water to investigate "low technology" such as washing and cleaning Uses pipes, funnels and other tools to carry/ transport water from one place to another	Knows how to operate simple equipment, e.g. turns on CD player, uses a remote control, can navigate touch-capable technology with support Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones and tablets Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound,	Completes a simple program on electronic devices Uses ICT hardware to interact with age appropriate computer software Can create content such as a video recording, stories, and/or draw a picture on screen Develops digital literacy skills by being able to access, understand and interact with a range of technologies Can use the internet with adult supervision to find and retrieve	Continue range six.

			<p>movements or new images</p> <p>Knows that information can be retrieved from digital devices and the internet</p> <p>Plays with a range of materials to learn cause and effect, for example, makes a string puppet using dowels and string to suspend the puppet</p>	information of interest to them		
What adults might do		<p>Comment on the ways in which young children investigate how to push, pull, lift or press parts of toys and domestic equipment. • Talk about the effect of children's actions, as they investigate what things can do.</p>	<p>Support children in exploring the control technology of toys, e.g. toy electronic keyboard.</p> <p>Talk about digital and other electric equipment, what it does, what they can do with it and how to use it safely.</p> <p>Talk to children about "low technologies" such as washing and drying, transporting water and using water to make things "work"</p>	<p>Support and extend the skills children develop as they become familiar with simple equipment, such as twisting or turning a knob.</p> <p>Draw young children's attention to pieces of digital apparatus they see or that they use with adult supervision.</p> <p>Talk to children about their uses of technologies at home and in other environments to begin to understand what they already know about and can</p>	<p>Encourage children to speculate on the reasons why things happen or how things work.</p> <p>In conversation highlight technology in aspects of nature, e.g. encouraging models of birds showing purposes and functions of wing feathers, body feathers, beaks, feet reflecting differences of different kinds of birds.</p> <p>Support children to coordinate actions to use technology, for example, call a telephone number</p>	Continue range six.

				<p>do with different technologies. Ask open-ended questions and have conversations about children's interest in technological toys to enable children to learn about different technologies. Support children to be curious in grappling with cause and effect, e.g. learning that pulling a string may make a puppet arm lift.</p>	<p>or create a video recording. Teach and encourage children to click on different icons to cause things to happen in a computer program. Talk to children about their actions, and support children to understand different purposes of different technologies. Retrieve content and use to facilitate discussions, allowing children to recall trips/ past events to enable them to connect to their wider community.</p>	
What adults might provide		<p>Have available robust resources with knobs, flaps, keys or shutters. Incorporate technology resources that children recognise into their play, such as a camera.</p>	<p>Provide safe equipment to play with, such as torches and walkie-talkies. Let children use machines like the photocopier to copy their own pictures. • Provide a range of materials for children to "stain" and have a go at washing, rinsing and drying</p>	<p>When out in the locality, ask children to help to press the button at the pelican crossing, or speak into an intercom to tell somebody you have come back. When in the community and on trips to places such as the park, encourage children</p>	<p>Provide a range of materials and objects to play with that work in different ways for different purposes, for example, egg whisk, torch, other household implements, pulleys, construction kits. Provide a range of programmable toys</p>	Continue range six.

			<p>outside in the sunshine. Provide a range of pipes, funnels, containers, water wheels and water for children to play with.</p>	<p>to take photographs and use mobile apps of things that interest them, ready to revisit later. Provide a range of materials that enable children to explore cause and effect.</p>	<p>for children to play with, as well as equipment involving ICT, such as computers, touchscreen devices and internet-connected toys.</p>	
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Year 1 Computing: Overview

Year 1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer1	Summer 2
Key Learning	<p>Information Technology - To create a digital image by taking a line for a walk To be able to create a picture using straight lines To be able to use an online resource to create an animated line picture</p> <p>Digital Literacy (Communication/Emails) - To be able to create some text using the 'write' aspect of JIT To create a simple image and blog it for all to view</p>	<p>Digital Literacy – To know when to ask for help To know who to go to if there was a problem online – their trusted adult(s) To be able to search safely online To be able to discuss the e-safety message from an online resource To be able to find out information from a website</p>	<p>Computer Science - To understand that many everyday objects need instructions To be able to give a set of precise instructions To understand the importance of giving precise instructions Information Technology – To create an image and add own text</p>	<p>Computer Science - To be able to programme a device To be able to give and record precise instructions To be able to design a map</p>	<p>Computer Science – To be able to create an algorithm To be able to code using blocks To be able to give and follow precise instructions To be able to use logical reasoning to predict the behaviour of on-screen objects To program a route online To be able to use trial and error to edit instructions</p>	<p>Information Technology– To be able to create simple animations to support story writing To understand how to sort a group of objects To be able to sort on-screen objects using the computer To be able to use graphing software to record numbers of objects in different groups To be able to access and take part in an online vote</p>
Curriculum Reference	<p>Use logical reasoning to predict the behaviour of simple programs Use technology purposefully to create, organise, store, manipulate and retrieve digital content use technology purposefully to create, organise, store, manipulate and retrieve digital content use technology safely and respectfully</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>understand what algorithms are; <i>how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</i> Recognise common uses of information technology beyond school</p>	<p>Create and debug simple programs .. that programs execute by following precise and unambiguous instructions use logical reasoning to predict the behaviour of simple programs</p>	<p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the</p>	<p>use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information technology beyond school.</p>

			use technology purposefully to create, organise, store, manipulate and retrieve digital content		behaviour of simple programs Recognise common uses of information technology beyond school	
Key Vocabulary	Fill, mouse, click, shift, undo, save, digital, painting tools, software, blog, online safety, trusted adults	Search engine, online safety, trusted adults, website	Algorithm, trial and error, debug, instructions, precise	BeeBot, precise, instructions, algorithm, programming, device, trial and error, debug, code	BeeBot, precise, instructions, algorithm, programming, device, trial and error, debug, code, predict, sprite, edit	Software, graph, vote, sort, animation, object
Outdoor learning opportunities			Giving precise instructions to others outdoors, getting from one point to another.			To go onto Lillie Road and observe and create a tally chart of the modes of transport on the road. This data can then be applied to creating a graph online of the data that has been collected.
Cultural Capital / Enrichment						

Year 2 Computing: Overview

Year 2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Learning	<p>Information technology –</p> <ul style="list-style-type: none"> To be able to create and comment on a blog post To understand the need for care in what a comment contains online <p>Digital Literacy –</p> <ul style="list-style-type: none"> To be able to respond appropriately when sending a message To understand the need to take care of personal information 	<p>Digital Literacy (Communication/Emails)</p> <ul style="list-style-type: none"> - To be able to describe and demonstrate how to get help from a trusted adult or helpline To be able to describe why other people’s work belongs to them To be able to recognise that content on the internet may belong to other people To be able to create a resource with image and text and understand the idea of ‘copyright’ 	<p>Computer Science (Algorithms) –</p> <ul style="list-style-type: none"> To be able to give a set of simple instructions to program a device To understand that electronic devices need precise instructions to be programmed To be able to recognise and talk about some common uses of ICT in the world around them 	<p>Computer Science (Programming) –</p> <ul style="list-style-type: none"> To be able to give a set of simple instructions to program a device To be able to use trial and error to improve/make changes in order to produce an accurate set of instructions To be able to predict the consequences of decisions/choices made To be able to describe position and direction 	<p>Information Technology –</p> <ul style="list-style-type: none"> To be able to create and store some data To be able to find answers to straight-forward questions To understand that not all websites are good to use To write questions to sort animals To be able to extract own information from a database and create a record 	<p>Information Technology –</p> <ul style="list-style-type: none"> To be able to create digital content for a clear purpose To make straight-forward edits of their digital work To be able to save and retrieve work To be able to import a photograph and ‘paint’ a new design over it To be able to modify an image within a poster To be able to give a set of simple instructions to a program To be able to chart some data and ask simple questions
Curriculum Reference	<p>use technology purposefully to create, organise, store, manipulate and retrieve digital content’</p> <p>use technology safely and respectfully....</p> <p>keeping personal information private;</p> <p><i>identify where to go for help and support when</i></p>	<p>Use technology safely and respectfully, keeping personal information private;</p> <p>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>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p>	<p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Use logical reasoning to predict the behaviour of simple programs</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content ... understand that programs execute by</p>

	<i>they have concerns about content or contact on the internet or other online technologies</i> Recognise common uses of information technology beyond school		Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs	create and debug simple programs use logical reasoning to predict the behaviour of simple programs		following precise and unambiguous instructions. Use technology safely ... keeping personal information private ...
Key Vocabulary	Blog, blogging, comment, communication, post, suitable, personal information	Trusted adults, helpline, online safety, copyright, import, image	BeeBot, network, algorithm, program, debug, editing, website, robot, forward, right, left, backwards, clear, stop, go, trial and error, precise instructions	BeeBot, network, algorithm, program, debug, editing, website, robot, forward, right, left, backwards, clear, stop, go, trial and error, precise instructions, sprite	Sort, classify, questions, branching, diagram, minibeasts, database, record	Vandalism, graffiti, save, photograph, paint, edit, copyright, poster, chart, data, algorithm, online safety
Outdoor learning opportunities			Giving precise instructions to others outdoors, getting from one point to another.	Cooking: Adult to be a robot – creating a jam sandwich in front of the children whilst they give precise instructions for each step. Partner work of child giving their partner precise instructions of how to make a different sandwich.		To have a walk in their local area to spot graffiti and discuss how they could make it look better and share their opinion on it.
Cultural Capital / Enrichment			Go to the Science Museum to see how technology of computers has changed over time.			

Year 3 Computing: Overview

Year 3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Learning	<p>Digital literacy –</p> <ul style="list-style-type: none"> To be able to plan and create a simple presentation To be able to comment on blog presentations To be able to create and share some information online, understanding the need to be respectful and safe To be able to make edits to their digital work <p>Computer Science –</p> <ul style="list-style-type: none"> To understand how digital devices work To explore simple written algorithms 	<p>Digital literacy –</p> <ul style="list-style-type: none"> To understand the difference between fact, fiction and opinion To be able to use key phrases in search engines To describe how to search for information within a wide group of technologies To understand that not everything that you see online is true To understand when you should ask a trusted adult for help To understand why passwords are important To be able to describe strategies for keeping personal information private To understand the SMART rules and to create a resource to promote message 	<p>Computer Science (Algorithms) –</p> <ul style="list-style-type: none"> To be able to use trial and error and predict some consequences of decisions made To be able to produce an accurate set of simple instructions, to program an on-screen or floor robot 	<p>Computer Science (Programming) –</p> <ul style="list-style-type: none"> To be able to produce an accurate set of simple instructions, to program an on-screen or floor robot To introduce sequencing To be able to add a new sprite, rename it, add a background and add simple speech 	<p>Information Technology –</p> <ul style="list-style-type: none"> To explore different tessellated shapes To be able to create their own tessellation resource from an interactive site To be able to make edits of their digital work To be able to save and retrieve work from electronic folders To be able to choose and assemble images and sound 	<p>Information Technology –</p> <ul style="list-style-type: none"> To be able to explore a sample database and gather some information To create a class database and find answers to questions To investigate the class database file
Curriculum Reference	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	be discerning in evaluating digital content. use technology safely, respectfully and responsibly; ...	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical	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	<i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of</i>

	<p>content that accomplish given goals, includingcollecting, analysing, evaluating.... and presenting data and information</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p>	<p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create ... content that accomplishes given goals, including ... presenting data and information</p>	<p>systems; solve problems by decomposing them into smaller parts.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</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>and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p>	<p><i>programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</i></p>
Key Vocabulary	<p>Presentation, blog, comment, image, information, save, digital device, algorithm, internet, program, procedure, website, World Wide Web</p>	<p>Search engine, belief, opinion, fact, fiction, information, website, post, online safety, password, private, SMART rules</p>	<p>Algorithm, robot, trial and error, code, debug, BeeBot, forwards, backwards, right, left, clear, go, predict, program, instructions</p>	<p>Internet, algorithm, program, World Wide Web, website, robot, trial and error, code, debug, BeeBot, forwards, backwards, right, left, clear, go, predict, program, instructions, sequencing, sprite, command, background, conversation</p>	<p>Tessellation, shapes, edit, improve, sound, save, select, move, delete, play, open</p>	<p>Database. Information, questions, file</p>
Outdoor learning						

opportunities						
Cultural Capital / Enrichment						

Year 4 Computing: Overview

Year 4	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Learning	<p>Information Technology – To be able to locate and save images. To be able to find and save relevant information. To be able to create a presentation using information found from internet sources. To be able to apply skills to find some information and create a presentation with a point of view.</p> <p>Digital literacy – To understand what a ‘packet’ is and how it relates to email. To collaborate with others by writing and receiving information via email. To be able to create and share some information online, demonstrating the need to be respectful and safe.</p>	<p>Information Technology – To be able to create a presentation using information found from internet sources. To be able to adapt a presentation for a different audience.</p> <p>Digital literacy - To be able to identify warning signs and to be able to set up privacy settings. To be able to identify who to turn to for help and support. To be able to sport manipulative tactics and the positive use of technology.</p>	<p>Computer Science (Algorithms) – To be able to produce, debug and edit an accurate sequence of instructions, including the use of repeat, to control on-screen objects. To be able to plan and create a program using decomposition, including the use of selection and/or variables.</p>	<p>Computer Science (Programming) – To be able to demonstrate logical choices and prediction when using a computer simulation. To be able to produce, debug and edit an accurate sequence of instructions, including the use of repeat, to control on-screen objects.</p>	<p>Information Technology – To be able to download sound clips, combine them and make simple edits. To create and edit an audio track. To be able to review, edit and publish an audio recording.</p>	<p>Information Technology – To be able to use software to create and combine content for meaningful purposes. To be able to use a spreadsheet to perform simple calculations. To be able to use basic formula. To be able to use a spreadsheet to store and handle a date file. To be able to manipulate an image using software. To understand protocols for searching and using suitable images online.</p>

Curriculum Reference	<p>'.....<i>understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web;</i>and the opportunities they offer for communication and collaboration.</p> <p>use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Use search technologies effectively, and be discerning in evaluating digital content.</p> <p>Select, use and combine a variety of software (including internet services) ...to accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p>	<p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Use search technologies effectively,.... and be discerning in evaluating digital content.</p> <p>Select, use and combine a variety of software (including internet services) ...to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</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>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>'Use sequence, selection, and repetition in 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>
Key Vocabulary	<p>Presentation, internet, save, search, image, facts, website, email, collaborate, writing, receiving</p>	<p>Presentation, website, comment, edit, copyright, sources, internet, audience, trust, safeguarding, disclosure,</p>	<p>Code, control, debug, algorithm, program, Logo, letters, trial and</p>	<p>Sequence, repetition, algorithm, code, debug, trial and error, program</p>	<p>Download, sound, edit, import, microphone, audio, track, recording, podcast</p>	<p>Spreadsheet, formula, download, network, tools, data, numbers, copyright, creative</p>

		technology, privacy settings	error, command, save			commons, tools, photo
Outdoor learning opportunities						
Cultural Capital / Enrichment						

Year 5 Computing: Overview

Year 5	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Learning	<p>Digital Literacy – To be able to create a text presentation. To be able to comment and collaborate on text.</p> <p>Computer Science – To explore the difference between the internet and the World Wide Web. To understand internet services and how data is transmitted across the internet.</p>	<p>Digital Literacy – To be able to use a valid and non-valid site to gather information. To be able to evaluate the suitability of websites.</p> <p>Information technology & Digital Literacy – To understand the SMART rules. To create an online safety poster.</p>	<p>Computer Science (Algorithms) – To be able to test, debug and edit a program that accomplishes a given goal and solves a problem. To be able to use logical reasoning to deconstruct programs, evaluate its effectiveness and make them more challenging or efficient.</p>	<p>Computer Science (Programming) – To be able to create an accurate program to accomplish a given goal, including the use of repetition, selection and variables. To be able to test, debug and edit a program that accomplishes a given goal to solve a problem. To be able to use logical reasoning to deconstruct programs, evaluate their effectiveness and make them more challenging or efficient.</p> <p>Information technology – To be able to use software effectively to create, design and manipulate for purposeful outcomes, such as</p>	<p>Information technology – To be able to find how to make efficient searches. To be able to compare three search engines. To be able to find relevant images that can be used freely for education use. To be able to combine resources from different sources into a digital presentation, showing clear sense of intended purpose and 'audience'.</p>	<p>Information technology – To be able to use software effectively to create, design and manipulate for purposeful outcomes. To be able to collect, analyse and draw conclusions from data. To be able to create a spreadsheet using basic formula. To be able to edit and develop own spreadsheet.</p>

				DT, art or music projects. To be able to explore simple design tools.		
Curriculum Reference	<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, includingcollecting, analysing, evaluating.... and presenting data and information</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they</p>	<p>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Select, use and combine a variety of software (including internet services) on a range of 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>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.</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>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>Select, use and combine a variety of software (including internet services) ..., including collecting, analysing, evaluating and presenting data and information</p> <p>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>Use technology safely, respectfully and responsibly.</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. ...solve problems by decomposing them into smaller parts.</p>

	offer for communication and collaboration.			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.		
Key Vocabulary	Comment, collaborate, presentation, online safety, online text, blogging, communication, internet, World Wide Web, web browsers	Information, website, suitability, reliable, trusted, content, URL name, links, adverts, evaluation, SMART rules, poster, text, images, hyperlinks, online safety	Test, debug, edit, trial and error, algorithm, code, movement, variables, game, program, sprite, challenge, efficient	Tools, design, sculpture, 3D, colour, texture, component, improve, adapt, variables program, repeat, variable, procedure, command, script	Presentation, purpose, audience, search engine, compare, efficient, World Wide Web, information, specific, copyright, information, reliable, valid	Software, design, manipulate, spreadsheet, tools, formula, sequence, edit, column, model, currency
Outdoor learning opportunities						
Cultural Capital / Enrichment						

Year 6 Computing: Overview

Year 6	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Learning	<p>Information Technology – To understand what a persuasive text is. To be able to plan a presentation that seeks to persuade. To be able to comment on presentations. To be able to use 3D shape tools effectively. To be able to use software effectively to create, design and manipulate for purposeful outcomes.</p>	<p>Computer Science - To be able to test, debug and edit a program that accomplishes a given goal, to solve a problem. To be able to create and develop programs by planning, debugging and applying programming skills of repetition, selection and variables, to accomplish specific goals. To be able to use logical reasoning to deconstruct programs and evaluate their effectiveness. To be able to use different types of input options and output options to solve a problem.</p>	<p>Digital Literacy – To be able to identify some fake online information and understanding ‘facts’ should be checked. To check and validate information through making careful web searches. To be able to explain how information can be fake.</p>	<p>Computer Science (Algorithms) – To be able to read a program and predict what it does. To be able to run and investigate a program. Digital Literacy – To investigate a scenario which is focused on advertising and body image. To investigate a scenario which is focused on advertising a life-style. To create own avatars considering image portrayed online.</p>	<p>Computer Science – To be able to make a paper fortune teller by debugging instructions. To be able to understand the difference between a syntax error and a logic error. To be able to recognise logic errors and understand how to fix them in a program.</p> <p>Information Technology – To be able to create a simple budget model. To be able to use the spreadsheet to try-out options. To be able to make changes to a spreadsheet and see the effects.</p>	<p>Information Technology – To be able to investigate animation and storyboarding ideas. To be able to plan and create an animation. To be able to showcase and review the animations.</p>
Curriculum Reference	<p>Select, use and combine a variety of software (including internet services) on</p>	<p>Design, write and debug programs that accomplish specific goals,</p>	<p><i>understand computer networks including the internet; how they can provide multiple</i></p>	<p>Design, write and debug programs that accomplish specific goals, including</p>	<p>Use logical reasoning to explain how some simple algorithms work and</p>	<p>Select, use and combine a variety of software (including internet services) on</p>

	<p>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. Solve problems by decomposing them into smaller parts.</p>	<p>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.</p>	<p>services, such as the World Wide Web; and the opportunities they offer for communication and collaboration. use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p>	<p>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'. Become digitally literate ...Use technology safely, respectfully and responsibly; recognise acceptable / unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p>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 Design, write and debug programs that accomplish specific goals ... solve problems by decomposing them into smaller parts Use sequence, selection and repetition in programs</p>	<p>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>
Key Vocabulary	Persuasive text, plan, presentation, comment, persuade, view-points, 3D,	Programming, problems, code, algorithm, trial and error, debug, sprite,	Trust, internet, web search, information, World Wide Web, facts	Algorithm, program, trial and error, debug, code, program, predict,	Variable, validate, digital footprint, spam, Wiki, syntax error, logic error,	Animation, stop-frame, storyboarding, animator, save

	tools, design, combine, shapes	instructions, design, programming script, costume		investigate, instruction, command, repeat, advert, avatar, blogs	paper fortune teller, instructions, debug, spreadsheet, party model, cell, formula, budget model	
Outdoor learning opportunities						
Cultural Capital / Enrichment						