

Long Term Curriculum Plan Computing

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 1
Year 1	<p>Word processing Children learn how to type with two hands, use the shift, space & enter key properly, and edit work by using the backspace, delete and arrow keys. Children will then go on to learn how to use undo and redo and to select and format text.</p>	<p>Computer skills Children learn how to use a computer mouse or a trackpad and how to switch on and shut down a computer. They will apply their skills by launching applications, manipulating windows & opening and saving files and folders. They will then practise their clicking skills and learn how to drag objects</p>	<p>Programming Linked to our theme work, children will instruct a programmable toy to move around a map to find buried treasure! They will start by inputting instructions one at a time and progress to programming short sequences of instructions.</p>	<p>Programming Children use Scratch JR to develop basic understanding of algorithms and how to create precise instructions for visual working programs. It begins to develop a sense of creating, debugging and logical reasoning</p>	<p>Painting Children develop basic painting skills in a painting application on a computer or tablet device. Children will use a simple painting program to paint with different colours and brushes, create shapes, fill areas, undo and redo and add text</p>	<p>E-safety Pupils learn that they can go to exciting places online, but they need to follow certain rules to remain safe</p>
NC OBJ 2014	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.		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 behaviour of simple programs. Recognise common uses of information technology beyond school.		Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	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.
Year 2	<p>Presentation skills Children develop skills needed for safe and effective computer use and introduce some further skills concerning the use of folders, searching for files and printing. Then children create a simple presentation.</p>	<p>Stop motion Children create a stop motion animation. They will research images of the great fire of London and use these to create a stop motion animation that they can add sound to.</p>	<p>Programming Children use the basic commands in Logo to move and draw using the turtle on screen, and further develop algorithms using the "repeat" command. children to create algorithms in Scratch using a selection of blocks.</p>	<p>Programming Children to create, test and debug algorithms, and preparing children to use the language of Turtle Logo.</p>	<p>Computer Art Children learn about reproducing the painting styles of great artists using computer programs</p>	<p>E-safety Pupils learn that they can go to exciting places online, but they need to follow certain rules to remain safe to understand that they should never give out private information</p>
NC OBJ 2014	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Recognise common uses of information technology beyond school.	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 behaviour of simple programs.		Recognise common uses of information technology beyond school	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 techs.

Year 3	Communication Children learn to save webpages in a browser, as well as in a file or folder. They understand how this can be shared with others. They identify ways of communicating online, how they can keep safe and the importance of being responsible while communicating online with others.	Word processing Children develop basic word-processing skills and will learn to use various features for formatting text.	E-safety Pupils explore reasons why people use passwords, learn the benefits of using passwords, and discover strategies for creating and keeping strong, secure passwords. Pupils explore the similarities and differences between in-person and online communications, and then learn how to write clear and respectful messages.	Presentation skills Children create presentations, developing skills in slide transition, animation, hyperlinks and audio and video.	Programming Children use the basic commands in Logo to move and draw using the turtle on screen, and further develop algorithms using the "repeat" command. children to create algorithms in Scratch using a selection of blocks.	Publishing Children will learn to draw, order, group and manipulate objects to make a picture. They will also learn to evaluate and create effective layouts, combining text and images.
NC OBJ 2014	Understand computer networks including the internet; how they can provide multiple 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.		Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.		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.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
Year 4	Digital Art Children will create a number of geometric pieces of art using the computer, including tiling patterns, patterns made with repeated polygons.	We are musicians Children will learn how to use a digital audio program to experiment with sampled music and they will then create backing music for their project using recording and samples. They will then play their music as a backing to their project.	Programming Children write quizzes by combining questions. While specific skills in Scratch are taught, the unit aims to teach children the wider programming skills of solving problems, testing, debugging, improving and evaluating.	Photo Stories Introduces children to two different software choices for a creative way of presenting digital photos. Using existing images or photos taken in advance, children learning skills in Microsoft Publisher and Windows Movie Maker.	E-Safety Pupils explore what it means to be responsible to and respectful of their offline and online communities as a way to learn how to be good digital citizens	Travel presenters The children will create a short animated slideshow, with narration/ or music, telling the story
NC OBJ 2014	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.		Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.			Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Year 5	Digital Art Children visit the Whitworth Art gallery and participate in a workshop inspired by their exhibits. They further explore the gallery using Minecraft and create their own digital sculptures. The class act as curator for their digital gallery and write a description of their sculptures, drawing upon their senses.	Photography Children take and upload digital photographs. They comment critically on one another's pictures and select some photographs to enhance using editing software. As a class, they create a web-based gallery.	Web design Children search the Internet with the introduction of creating and editing a webpage. They learn how to use advanced search features in Google, such as fill in the blanks; and how to create a webpage on E-Safety which includes images and links to other webpages	3D Modelling children extend their drawing skills to create 3D models based on using the software SketchUp Make	Radio Station children to use software and digital devices for recording sound. Based around the theme of a Radio Station, it is designed to encourage a creative approach that includes interviewing, making adverts and using jingles	Programming Children use Scratch to build and edit algorithms for simple games. They develop their skills in writing their own algorithms as well as editing and debugging existing codes.
NC OBJ 2014	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.	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.	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, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.		
Year 6	Programming Children develop their skills in writing their own algorithms as well as editing and debugging existing codes. New skills introduced to structure code and animate characters and scenes, gradually building to create a short animated story.	Kodu Introduces children to programming with Kodu, a simple visual programming language made specifically for creating games	Spread Sheets Children develop an understanding of spreadsheets and how they can be used. They learn skills in formatting and entering specific formulas. They investigate skills in using the spreadsheet to solve specific problems	Film Making Children explore various aspects of film-making. They must choose and use appropriate software in order to complete tasks such as writing a script, researching information, filming and editing	E Safety Pupils learn that the Internet is a great place to develop rewarding relationships. But they also learn not to reveal private information to a person they know only online. Pupils explore how it feels to be cyberbullied, how cyberbullying is similar to or different than in-person bullying, & learn strategies for handling cyberbullying when it arises.	Using & Applying Children research and design the content for a new game using known software, then plan a launch for the game with a website or advert.
NC OBJ 2014	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.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts			

