



## Whole School Computing Overview 2020 -2021

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Introduction to the computer room and Laptops. Lots of hands on generic skills/mouse control. Online safety - Smarty Penguin/Digi Duck/Connecting World.		Use of remote control toys. Introducing the BeeBots and directional language. De bugging when things go wrong. Using the internet for simple searches.		Introduction to digital art.	Create a Story
Year 1	<b>Computer Skills</b> Pupils will: -use technology to purposefully manipulate and retrieve data. -use technology safely and respectfully.	<b>Word Processing</b> Pupils will: -recognise uses of IT beyond school. -use technology purposefully to create a word document. -use technology purposefully to organise, store and retrieve work.	<b>Painting</b> Pupils will: - be taught to use technology how to manipulate a digital art software purposefully to effectively create their own digital art work.	<b>Programming Toys</b> Pupils will: -revise BeeBots, how to predict movement and how to program them. -learn algorithms and what they are. -learn programs and how to execute by following precise and unambiguous instructions.	<b>Scratch Jr Programming</b> Pupils will: -understand what algorithms are and how they are implemented as programs on digital devices. -use logical reasoning to predict the behaviour of simple programs in Scratch. -learn how to execute programs by following precise and ambiguous instructions.	<b>Using and Applying</b> IT skills check: – Pupils will have the opportunity to use and apply, organise, store, manipulate and retrieve data via a teacher led task using the software learnt throughout the year.
Year 2	<b>Preparing for Turtle Logo</b> Pupils will: -through the use of Turtle Logo, learn what an algorithm is	<b>Computer Art</b> Pupils will: -recognise common uses of IT beyond school.	<b>Programming Turtle Logo and Scratch</b> Pupils will: -use logical reasoning to predict the behaviour of a	<b>Presentation skills</b> Pupils will: -organise, store and retrieve files. -they will manipulate the use of	<b>Using the Internet/Online Safety</b> Pupils will: be taught what the internet and WWW	<b>Using and Applying</b> Skills check: -Pupils will show their programming



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	<p>and how they are implemented as programs.</p> <ul style="list-style-type: none"> <li>-use logical reasoning to predict the behaviour of a simple program.</li> <li>- use technology purposefully to debug programs.</li> </ul>	<ul style="list-style-type: none"> <li>-become familiar with a digital art software to create their own art work based on a teacher led project.</li> <li>-store, organise and retrieve files.</li> </ul>	<p>simple program in Turtle Logo.</p> <ul style="list-style-type: none"> <li>- use algorithms to create and implement their own simple Turtle Logo program and debug where necessary before being introduced to junior Scratch where students predict the behaviour of a simple program.</li> </ul>	<p>PowerPoint tools for a specific purpose.</p> <ul style="list-style-type: none"> <li>-use the technology safely and respectfully.</li> </ul>	<p>are and their purpose (age relevant).</p> <ul style="list-style-type: none"> <li>-taught how to use a search engine safely.</li> <li>-understand the dangers posed online.</li> </ul>	<p>and software manipulation progress in a presentation.</p>
Year 3	<p><b>Programming Turtle Logo and Scratch</b></p> <p>Pupils will:</p> <ul style="list-style-type: none"> <li>-understand input and output.</li> <li>-revise the use of Turtle Logo before moving onto Scratch to solve a problem which they decompose into smaller parts.</li> <li>-use sequence, selection and repetition in their program.</li> </ul>	<p><b>Word Processing</b></p> <p>Pupils will:</p> <ul style="list-style-type: none"> <li>-start to combine software to create a word processed document with researched images and information.</li> <li>-ensure technology is used safely, responsibly and respectfully.</li> <li>-recognise unacceptable behaviour and content and how to report.</li> </ul>	<p><b>Drawing and DTP</b></p> <p>Pupils will:</p> <ul style="list-style-type: none"> <li>-use a drawing package to create purposeful images and combine with other software on MS Publisher.</li> <li>- continue to use the technology safely, respectfully and responsibly knowing how to report concerns.</li> </ul>	<p><b>Internet research and communication</b></p> <p>Pupils will:</p> <ul style="list-style-type: none"> <li>-be taught how to use search technologies effectively and how results are selected and ranked.</li> <li>- learn how to be discerning in evaluating digital content.</li> <li>- how to identify a range of ways to report concerns about content and contacts.</li> </ul>	<p><b>Presentation skills</b></p> <p>Pupil will:</p> <ul style="list-style-type: none"> <li>-learn MS PowerPoint tools to create a PowerPoint maze game.</li> <li>- they will use algorithms, solve problems, use variables of input, process and output.</li> <li>-they will include sequencing, selecting and repetition in their programs.</li> </ul>	<p><b>Using and applying</b></p> <p>Skills check:</p> <ul style="list-style-type: none"> <li>-pupils will be asked to create a presentation about the school.</li> <li>-they will combine software used throughout the year.</li> <li>-they will include the use of Logo or Scratch within their presentation.</li> </ul>



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Year 4	<p><b>Online Safety</b> Pupils will:</p> <ul style="list-style-type: none"> <li>-learn how to keep their information safe.</li> <li>-learn how to recognise a safe website.</li> <li>-learn how to use search engines effectively and how the results are selected and ranked.</li> <li>-Learn how to recognise inappropriate online behaviour and how to report.</li> </ul>	<p><b>Programming Turtle Logo</b> Pupils will:</p> <ul style="list-style-type: none"> <li>-learn via Turtle Logo how to design, write and debug programs.</li> <li>– Solve problems by decomposing into smaller parts.</li> <li>-use sequencing, selection and repetition in their programs.</li> <li>-understand input-process-output.</li> <li>-use logical reasoning to explain how some simple algorithms work.</li> <li>-detect and correct errors in algorithms and programs.</li> </ul>	<p><b>Word Processing</b> Pupils will:</p> <ul style="list-style-type: none"> <li>-evaluate the use of word processing software for different purposes.</li> <li>-be introduced to a cake sale project where they will have the opportunity to learn new skills and apply in a range of formats including letters, job rotas, recipe cards and e-vouchers.</li> </ul>	<p><b>Animation</b> Pupils will:</p> <ul style="list-style-type: none"> <li>- be introduced to animation software such as <b>Stykz</b>, MovieSoup and Jellycam. They will evaluate each example.</li> <li>-using a range of software plan, create, evaluate and improve their own animation.</li> </ul>	<p><b>Scratch questions and answers</b> Pupils will:</p> <ul style="list-style-type: none"> <li>-use their knowledge of problem solving, testing, debugging, improving and evaluating to plan and create quiz on Scratch.</li> <li>-include sequencing, selection, repetition and variables.</li> </ul>	<p><b>Using and Applying</b> Pupils will:</p> <ul style="list-style-type: none"> <li>-select, use and combine a variety of software to design a range of programs that include a cartoon character (sprite) that they create.</li> <li>-use appropriate software to present their progress.</li> </ul>
Year 5	<p><b>Scratch: Developing Games</b> Pupils will:</p> <ul style="list-style-type: none"> <li>-design, write and debug programs that accomplish specific goals including controlling or simulating physical systems.</li> </ul>	<p><b>Flowol</b> Pupils will:</p> <ul style="list-style-type: none"> <li>-be introduced to flow charts and their purpose.</li> <li>-use <b>Flowol</b> to design, write and debug programs that accomplish specific goals, including</li> </ul>	<p><b>Spreadsheets and databases.</b> Pupils will:</p> <ul style="list-style-type: none"> <li>-be introduced to a spreadsheet and database software.</li> <li>-they will use various functions for a specific purpose.</li> </ul>	<p><b>Online Safety</b> Pupils will:</p> <ul style="list-style-type: none"> <li>-learn about email safety and dealing with spam.</li> <li>-build on knowledge of plagiarism and fair use of people’s work.</li> <li>-scrutinise photographs and</li> </ul>	<p><b>Modelling: Sketch Up</b> Pupils will:</p> <ul style="list-style-type: none"> <li>-select, use and combine a variety of software on a range of devices to design and create a 3D model.</li> </ul>	<p><b>Make a website using HTML &amp; skills check.</b> Pupils will:</p> <ul style="list-style-type: none"> <li>-learn basic HTML to create a website which will include images and information</li> </ul>



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	<ul style="list-style-type: none"> <li>-solve problems by decomposing them into smaller parts.</li> <li>-use sequence, selection and repetition in programs.</li> <li>-work with variables and various forms of input and output.</li> <li>-use logical reasoning to explain how some simple algorithms work.</li> <li>- detect and correct errors in algorithms and programs.</li> </ul>	<ul style="list-style-type: none"> <li>controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</li> <li>-use sequencing, selection, repetition, variables, input, process and output.</li> </ul>	<ul style="list-style-type: none"> <li>-be presented with a challenge to collect, analyse, evaluate and present data and information effectively.</li> </ul>	<ul style="list-style-type: none"> <li>learn how easy they are to manipulate.</li> <li>-create a comic strip about the consequences of not following online safety rules.</li> </ul>	<ul style="list-style-type: none"> <li>about the projects completed this year.</li> <li>Notepad++</li> </ul>	
Year 6	<p><b>Scratch: Animated Stories</b></p> <p>Pupils will:</p> <ul style="list-style-type: none"> <li>-be provided with a task to create a topic related story.</li> <li>-use previous skills and learn new ones for a story sequence to be created.</li> <li>-include audio and interactive functionalities.</li> </ul>	<p><b>Spreadsheets and databases.</b></p> <p>Pupils will:</p> <ul style="list-style-type: none"> <li>-be introduced to a spreadsheet and database software.</li> <li>-they will use various functions for a specific purpose.</li> <li>-be presented with a challenge to collect, analyse, evaluate and present data and information effectively.</li> </ul>	<p><b>Programming</b></p> <p>Pupils will:</p> <ul style="list-style-type: none"> <li>-learn about different programming languages.</li> <li>-be introduced to <b>Python</b></li> <li>-they use logical reasoning to explain how algorithms will work.</li> <li>-input various instructions and analyse before designing, writing</li> </ul>	<p><b>Online Safety</b></p> <p>Pupils will:</p> <ul style="list-style-type: none"> <li>-take a more in depth look at a variety of online safety issues.</li> <li>-learn how the internet is used for a variety of media and how it can be used to stereo thoughts and ideas about girls and boys.</li> <li>-they will learn about SMARTbots.</li> </ul>	<p><b>Film Making</b></p> <p>Pupils will:</p> <ul style="list-style-type: none"> <li>-learn how to use film recording and editing hardware and software to</li> <li>-research, plan, write a script, interview, film, edit and publish a documentary.</li> </ul> <p>Green screen Do ink</p>	<p><b>Using and Applying</b></p> <p>Skills check:</p> <ul style="list-style-type: none"> <li>-pupils will research and design the content of a new game using known software.</li> <li>-they plan a launch for their game with a website or advert.</li> </ul>



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and debugging their own program for a simple game.

<https://repl.it/>

-choose and use appropriate software to create an 'online safety quiz'.

Online safety week – 2nd February 2021

Computing Club will offer HTML and Python tuition.