Whole School Computing Overview 2021-2022

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	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	**Computer Skills** Pupils will: -use technology to purposefully manipulate and retrieve data. -use technology safely and respectfully.	**Word Processing** 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.	**Painting** Pupils will: - be taught to use technology how to manipulate a digital art software purposefully to effectively create their own digital art work.	**Programming Toys** 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.	**Scratch Jr Programming** 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.	**Using and Applying** 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	**Preparing for Turtle Logo** Pupils will: -through the use of Turtle Logo, learn what an algorithm is and how they are implemented as programs.	**Computer Art** Pupils will: -recognise common uses of IT beyond school. -become familiar with a digital art software to create their own art work	**Programming Turtle Logo and Scratch** Pupils will: -use logical reasoning to predict the behaviour of a simple program in Turtle Logo. - use algorithms to create and	**Presentation skills** Pupils will: -organise, store and retrieve files. -they will manipulate the use of PowerPoint tools for a specific purpose.	**Using the Internet/Online Safety** Pupils will: be taught what the internet and WWW are and their purpose (age relevant).	**Using and Applying** Skills check: -Pupils will show their programming and software manipulation progress in a presentation.

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	-use logical reasoning to predict the behaviour of a simple program. - use technology purposefully to debug programs.	based on a teacher led project. -store, organise and retrieve files.	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.	-use the technology safely and respectfully.	-taught how to use a search engine safely. -understand the dangers posed online.	
Year 3	**Programming Turtle Logo and Scratch** Pupils will: -understand input and output. -revise the use of Turtle Logo before moving onto Scratch to solve a problem which they decompose into smaller parts. -use sequence, selection and repetition in their program.	**Word Processing** Pupils will: -start to combine software to create a word processed document with researched images and information. -ensure technology is used safely, responsibly and respectfully. -recognise unacceptable behaviour and content and how to report.	**Drawing and DTP** Pupils will: -use a drawing package to create purposeful images and combine with other software on MS Publisher. - continue to use the technology safely, respectfully and responsibly knowing how to report concerns.	**Internet research and communication** Pupils will: -be taught how to use search technologies effectively and how results are selected and ranked. - learn how to be discerning in evaluating digital content. - how to identify a range of ways to report concerns about content and contacts.	**Presentation skills** Pupil will: -learn MS PowerPoint tools to create a PowerPoint maze game. - they will use algorithms, solve problems, use variables of input, process and output. -they will include sequencing, selecting and repetition in their programs.	**Using and applying** Skills check: -pupils will be asked to create a presentation about the school. -they will combine software used throughout the year. -they will include the use of Logo or Scratch within their presentation.
Year 4	**Online Safety** Pupils will: -learn how to keep their information safe. -learn how to recognise a safe website.	**Programming Turtle Logo** Pupils will: -learn via Turtle Logo how to design, write and debug programs. – Solve problems by decomposing into smaller parts.	**Word Processing** Pupils will: -evaluate the use of word processing software for different purposes. -be introduced to a cake sale project where they will have	**Animation** Pupils will: - be introduced to animation software such as Stykz, MovieSoup and Jellycam. They will evaluate each example.	**Scratch questions and answers** Pupils will: -use their knowledge of problem solving, testing, debugging, improving and evaluating to plan	**Using and Applying** Pupils will: -select, use and combine a variety of software to design a range of programs that include a cartoon character

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	-learn how to use search engines effectively and how the results are selected and ranked. -Learn how to recognise inappropriate online behaviour and how to report.	-use sequencing, selection and repetition in their programs. -understand input-process-output. -use logical reasoning to explain how some simple algorithms work. -detect and correct errors in algorithms and programs.	the opportunity to learn new skills and apply in a range of formats including letters, job rotas, recipe cards and e-vouchers.	-using a range of software plan, create, evaluate and improve their own animation.	and create quiz on Scratch. -include sequencing, selection, repetition and variables.	(sprite) that they create. -use appropriate software to present their progress.
Year 5	**Scratch: Developing Games** Pupils will: -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	**Flowol** Pupils will: -be introduced to flow charts and their purpose. -use Flowol to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. -use sequencing, selection, repetition, variables, input, process and output.	**Spreadsheets and databases.** Pupils will: -be introduced to a spreadsheet and database software. -they will use various functions for a specific purpose. -be presented with a challenge to collect, analyse, evaluate and present data and information effectively.	**Online Safety** Pupils will: -learn about email safety and dealing with spam. -build on knowledge of plagiarism and fair use of people's work. -scrutinise photographs and learn how easy they are to manipulate. -create a comic strip about the consequences of not following online safety rules.	**Modelling: Sketch Up** Pupils will: -select, use and combine a variety of software on a range of devices to design and create a 3D model.	**Make a website using HTML & skills check.** Pupils will: -learn basic HTML to create a website which will include images and information about the projects completed this year. Notepad++

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	how some simple algorithms work. - detect and correct errors in algorithms and programs.					
Year 6	**Scratch: Animated Stories** Pupils will: -be provided with a task to create a topic related story. -use previous skills and learn new ones for a story sequence to be created. -include audio and interactive functionalities.	**Spreadsheets and databases.** Pupils will: -be introduced to a spreadsheet and database software. -they will use various functions for a specific purpose. -be presented with a challenge to collect, analyse, evaluate and present data and information effectively.	**Programming** Pupils will: -learn about different programming languages. -be introduced to Python -they use logical reasoning to explain how algorithms will work. -input various instructions and analyse before designing, writing and debugging their own program for a simple game. https://repl.it/	**Online Safety** Pupils will: -take a more in depth look at a variety of online safety issues. -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. -they will learn about SMARTbots. -choose and use appropriate software to create an 'online safety quiz'.	**Film Making** Pupils will: -learn how to use film recording and editing hardware and software to -research, plan, write a script, interview, film, edit and publish a documentary. Green screen Do ink	**Using and Applying** Skills check: -pupils will research and design the content of a new game using known software. -they plan a launch for their game with a website or advert.

Online safety week – 2nd February 2021

Computing Club will offer HTML and Python tuition.