

Multiple Year Long term planning for Computing

The KS1 and KS2 national curriculum (remembering we have half of KS2)

KS1		Understand algorithms <ul style="list-style-type: none"> How they are implemented and how programs execute by following precise and unambiguous instructions. 	Create and debug simple programs	Use logical reasoning to predict the behaviour of simple programs	Using IT to create, organise, store, manipulate and retrieve digital content.	Recognise common uses of IT beyond school	Use technology safely and respectfully <ul style="list-style-type: none"> keep personal info private, identify where to go for help and support about content or contact
KS2	Understand computer networks Including the internet, how they provide service and opportunities for communication and collaboration.	Design, write and debug programs that accomplish specific goals <ul style="list-style-type: none"> controlling physical systems solve problems by decomposing into smaller parts 	Use sequence, selection and repetition in programs, work with variables and various forms of input and output.	Use logical reasoning <ul style="list-style-type: none"> to explain how some simple algorithms work, detect and correct errors in algorithms and programs 	Select, use and combine a variety of software on a range of devices to design & create programs System and content that accomplish given goals including collecting, analysing, evaluating and presenting data / info.	Use search technologies effectively <ul style="list-style-type: none"> how results are ranked be discerning in evaluating content 	Use technology safety, respectfully and responsibly <ul style="list-style-type: none"> recognise unacceptable behaviour identify a range of ways to report concerns about content and contact

Early years – making connections to KS1.

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Computing topic for the half term	E-safety Use IT	Common uses / understand networks / Use IT	Use IT / & search effectively	E-safety refresher Algorithms	Programming / physical systems	Programming E-safety refresher
	<ul style="list-style-type: none"> Recognise simple technologies in the world around us (phones, computers, printers etc.). Know to tell someone if they view content they think is inappropriate or upsetting Use a variety of input devices 	<ul style="list-style-type: none"> Understand that ICT can be used to communicate ideas in different ways With support logon to the network and/or learning journal platform and save screens and save their work. 	<ul style="list-style-type: none"> With support, use appropriate websites to locate small amounts of information, choose images and enter text into a search engine to find specific given web sites. 	<ul style="list-style-type: none"> Explore outcomes when individual buttons are pressed on programmable toys Be able to follow and give simple instructions to operate programmable toys and computer software 	<ul style="list-style-type: none"> Identify mistakes in simple instructions Use equipment that simulates control devices such as push button toys 	<ul style="list-style-type: none"> Develop simple classification skills by carrying out simple sorting activities Respect the work of others

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2021/22 and 2023/24	KS1: E-safety first. Smartie the Penguin / Project Evolve Logging in and off the computers and iPads / how to save and find files on our system Theme in 2021: Asia / Chinese writing link to internet – recognising ways it can be used to communicate. Create presentations. Theme in 2023: London : digital tour of London.		Creating spreadsheets & graphs to present information KS1: j2data – pictogram creator	KS1: Project Evolve KS1: algorithms lessons from barefoot computing: <ul style="list-style-type: none"> • Crazy characters • Bee-bot iPad app • Blue Bot simple algorithms / programs 	Simple algorithms <ul style="list-style-type: none"> • De-bugging • Predictions • Daisy the Dinosaur 	KS1: who can you tell? Simple programs <ul style="list-style-type: none"> • School360 little pirate ship • Hour of code
	KS2: childnet SMART e-safety / Project Evolve Refresher on how to save and find files on our system. Create posters using Publisher. Explain how networks work. Explain how the internet works. 2021: Asia /History of writing link includes creating mini e-books for a purpose). 2023: London : mini blog 'live tweets' of the great fire.		KS2: excel spreadsheets with charts.	KS2: think u know e-safety / Project Evolve KS2: inputs and outputs – theory and practical <ul style="list-style-type: none"> • Intro to scratch • Makey makey game controllers 	KS2: physical systems <ul style="list-style-type: none"> • Classroom volume monitor using scratch / laptop microphone. 	KS2: reporting concerns KS2: programming <ul style="list-style-type: none"> • Off line programming work i.e. How to make a jam sandwich (debugging & predicting) • Hour of code
2022/23 and 2024/25	E-safety first. Penguins KS1: Common uses of technology KS1: recap on how to save and find files on our system, then Busy Things KS1 paint and publisher linked to Farming and Food theme (2022) Or film video on iPad to fit with That's Entertainment (2024)		KS1: J2data Chart (bar / pie)	KS1: Think u know / Digi-duck <ul style="list-style-type: none"> • offline algorithms (barefoot) Sharing sweets • Blue-Bot 	KS1: <ul style="list-style-type: none"> • Busy Things through school360 for sequencing monster grid • JIT turtle 	KS1: who can you tell? KS1: junior scratch
	KS2: childnet SMART e-safety KS2: understand search technology, then use the internet effectively and safely to research for: A ppt presentation linked to the topic Farming and Food Or create iMovie trailers to fit with That's entertainment (2024)		KS2: J2data Branching databases	KS2: think u know e-safety <ul style="list-style-type: none"> • Algorithms A.L.E.X. / lightbot • Hour of code 	KS2: physical systems Crumble?	KS2: reporting concerns KS2: create a maze game in scratch