

ICT and Computing long term plan 2014 - 2015

CS=Computer Science, **IT**=Information Technology and **DL**=Digital Literacy

T	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6	
1	Introduction to Algorithms - Making Food. Purple Mash Instruction Writing		C S Scratch Space Ship design and make a simple game with arrow keys		C S Introduction to flowcharts and the getting up algorithm Making a story using a flowchart and then create this in PPT		C S I T Create own educational Maths quiz game using Scratch.		C S Using Scratch to create a mobile maze game with the controls on screen		C S Using Prezi to make a presentation about WWII Searching for information	D L I T
2	Introduction to block design and programming Lego Designer block based programming Blockly Games, Scratch or 2Code		C S Finding the events of Great fire of london Scratch - telling the story of the Great Fire of London in pictures		I T C S Introduction to Scratch Making music		C S Programming Scratch to draw shapes and patterns		C S 3D Desing using Trimble SketchUp Make Design an eco house		I T Gamemaker project using scratch Christmas pong game	C S
3	Computers everywhere How are computers used outside school in the home and work Purple Mash. BBC Bitesize		D L African animals database using 2investigate		I T Design and create an online survey Using a spreadsheet to analyse the survey responses and produce simple charts.		D L I T Small group project using Google Drive and internet searching to produce a presentation about a famous montain.		I T Minecraft 3D game world design Kodu 3D game design Plan and Make a simple game		C S Minecraft Rainforest project	D L
4	Create an e-storybook 2create a story. <i>Fairy tales</i>		I T 3D maze game making using 2DIY – produce instructions and share the game 3D maze game making using 2DIY <i>Africa</i>		I T C S Survey project continued Introduction to spreadsheets and manipulating the data		D L I T Intro to Google spreadsheet using live Weather data		I T Geometry and art project using inkscape		I T introduction to Python programming using Coding Club books	C S
5	What is a computer program How to program Bee-Bot focus on Bee-Bot, Lightbot and 2go		C S introduction to Logo programming using Scratch creating simple shapes		C S Using Gmail and Google Apps for education. How to communicate safely on the internet How email works		D L Egyptian digital pop art project using paint Graphics project Inkscape		I T Understanding computer networks and how they work Google Slides presentation		D L NXT Robot building and programming using enchanting plug in for Scratch (5 Sets)	C S
6	Using the internet to search for animals and plants.		I T Google maps create a story map		D L I T Stop frame animation using web cameras and ZU3D		I T Minecraft to build and Egyptian City with tombs and temples		I T Create an E-safety using Google Sites		D L How the internet works e-safety and how to keep safe while online	D L

ICT and Computing long term plan 2014 - 2015

	KS1	KS2
CS	<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>Create and debug simple programs</p> <p>Use logical reasoning to predict the behaviour of simple 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>Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web</p> <p>Appreciate how [search] results are selected and ranked</p>
IT	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Use search technologies effectively</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>
DL	<p>Recognise common uses of information technology beyond school</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 the opportunities [networks] offer for communication and collaboration</p> <p>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>