

	Terms 1&2	Terms 3&4	Terms 5&6
YEARS	We start the life of Upton's Computing Curriculum with a "Computer Skills License". This helps all children at Upton getting used to Windows, saving on the network and accessing the internet safely. With TEACH-IT, the children learn to: Use-IT, Draw-IT, Type-IT, Find-IT, Surf-IT, Merge-IT and Prove-IT. The children are encouraged to self-assess their learning by colouring in the "IT" part of their booklet either Red, Yellow or Green. This booklet is then used in the classroom, to enable effective support during a lesson with computers or Ipads. The Code-IT lessons	This term is focused on Coding Loops (Repeat and Forever). Pupils will learn what an algorithm is and will be able to express simple algorithms using symbols. They will be able to use sequences and repetition in programs and also decompose code into smaller parts to allow them to tackle problems. Finally, they will be able to find and correct errors i.e debugging, in algorithms. 1. Unplugged activity 2. Busythings <u>Rapid Router</u> 3) Creating simple instructional algorithms. (move forward, turn right etc) 4) Developing efficiency in algorithms (Shortest route, shortest algorithm) 5) Introduce loops with variables. (Run the loop 4 times) 6) Develop the use of loops to increase efficiency	This term is about consolidating algorithms using the "repeat" command in Scratch. As the children learn how to use a coding language, they then produce simple animations. By the end of the "block" ...most children will be able to: • Identify input and output devices • Insert sprites and backgrounds • Competently use common motion blocks such as move, glide • Use repeat and forever loops • Create algorithms of coding blocks
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YEAR4	This unit will teach pupils how to use Microsoft Word so they can make appealing and attractive posters and information using Word. They will learn to insert and format images and also texts and change layouts. <u>Word Processing Project</u> I can format images for a purpose. I can use formatting tools to create an effective layout. I can use the spellcheck tool. I can insert and format a table in a word processing document I can change a page layout for a purpose I can create hyperlinks within a word document.	This term, pupils will learn in coding what is an event. They will use this knowledge to initiate their scratch projects in different ways. In the later lessons they will also understand the difference between the internet and the world wide web and begin to use keyword when searching. By the end of the "block" ...most children will be able to: • explain what an event is and how it can be used to start an algorithm • Use different event blocks to start an algorithm. • recognise several ways to start algorithms • add algorithms to code effects for sprites • modify and write their own programs to tell a joke and conversation • understand how a search engine works	This unit builds on their Coding using event blocks by applying their knowledge to an external device: Microbit. They will recognise many possible events blocks that can start algorithms and will learn how these can be used to initiate code. The unit aims to teach children the wider programming skills of solving problems, testing, debugging, improving and evaluating. By the end of the "block" ...most children will be able to: • connect an external device to the computer. • recognise several ways to start algorithms • add coding blocks to create algorithms • transfer code to the external device so that it carries out the code
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YEARS	This term teaches the children how to effectively use PowerPoint to create a multimedia presentation. They will be able to transfer the skills learnt previously in Word. <u>PowerPoint Design Project</u> I can plan a branching story. I can create slide templates and organise slides with hyperlinks. I can add theme, transitions and animation to a presentation. I can insert audio and video. I can evaluate slide layout and make improvements.	In this term, pupils will learn what selection is and how selection allows a device to run. Across the term, they will create a maze game where they control their sprite to move and complete the maze. Selection is used to define the maze walls. By the end of the "block" ...most children will be able to: • design and program a sprite they can control • create a maze background using sprite editing tools • create selection code to 'electrify' the walls • use sensing to define end points • be able to identify bugs within their code • add levels of increasing difficulty to the game	This term, they will learn what selection is and how selection allows a device to run. They will learn how to program an external physical device, Lego Education Prime Spike. From creating code using an online block editor, they will then become accustomed to transferring the code to the lego kit using a bluetooth connection which will then display the outputted code. This topic will embed the skills of creating algorithms and debugging code. By the end of the "block" ...most children will be able to: • connect an external device to the computer using bluetooth • program an algorithm using the editing program and debug • transfer the code to the external device so that it carries out the code
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YEAR6	During this term children will learn to use Spreadsheets effectively. They will create data and organise it so that they can then calculate and answer questions from the data. <u>Spreadsheet Project</u> I can add, edit and calculate data using formulae into a spreadsheet. I can order and present data based on calculations. I can use a spreadsheet to solve problems. I can plan and calculate a spending budget. I can design a spreadsheet for a specific purpose.	This term, they will learn what a variable is and be able to give examples. They will begin to learn how this can be used to change how a program runs. They will learn how to program an external physical device, Lego Education Prime Spike. From creating code using an online block editor, they will then become accustomed to transferring the code to the lego kit using a bluetooth connection which will then display the outputted code and variable count. This topic will embed the skills of creating algorithms and debugging code through a series of mini projects. By the end of the "block" ...most children will be able to: • Connect an external device to the computer using bluetooth • Program an algorithm to count using the editing program and debug • Transfer the code to the external device so that it carries out the code	The children will continue to develop their knowledge of variables by programming a series of games. New variables are introduced to structure code and animate characters and scenes. Within this term, children will learn how computers communicate and share information with each other. They will recognise how to identify reliable websites and how to report websites that are not suitable. By the end of the "block". By the end of the "block" ...most children will be able to: • Explain what a variable is and how it can be used in a game • They will use variables to change how an algorithm works. • Explain how computers share information between computers
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