

YEARS

	Terms 1&2	Terms 3&4	Terms 5&6
YEARS	<p>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.</p> <p>With TEACH-IT, the children learn to:</p> <p>Use-IT, Draw-IT, Type-IT, Find-IT, Surf-IT, Merge-IT and Prove-IT.</p> <p>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</p>	<p>This term is focused on Coding Loops (Repeat and Forever). It will teach pupils to use sequences and repetition in programs and also decompose code into smaller parts to allow them to tackle problems.</p> <ol style="list-style-type: none"> 1. Unplugged activity 2. Busythings <p><u>Rapid Router</u></p> <ol style="list-style-type: none"> 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 	<p>This term is split between teaching search engines and how to effectively search using key words and also identifying common input and output devices, before finally consolidating algorithms using the "repeat" command in Scratch. As the children learn how to use a coding language, they then produce simple animations.</p> <p>By the end of the "block" ...most children will be able to:</p> <ul style="list-style-type: none"> • Identify input and output devices • Use search engines correctly • Insert sprites and backgrounds • Use common motion blocks • Use repeat and forever loops
			<p>Online Safety starters Project Evolve Knowledge maps</p> <p>Regular E-Safety lessons from National Online Safety</p> <p>Starting to search the internet safely and effectively.</p>

	Terms 1&2	Terms 3&4	Terms 5&6
YEAR4	<p>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.</p> <p><u>Word Processing Project</u> I can format images for a purpose. I can use formatting tools to create an effective layout.</p> <p>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.</p>	<p>This term will teach the pupils what a database is and how it can be used to collect, sort data. The children will learn the difference between the internet and the world wide web. They will begin to understand that when searching keywords are used for search terms rather than whole sentences and will begin to understand how search engines work. The latter lessons will introduce the importance of the Events block to initiate code when programming.</p> <p>By the end of the "block"</p> <p>...most children will be able to:</p> <ul style="list-style-type: none"> • Understand how a search engine works • Explain what data is and how a database can be used to collect and sort data • Explain what an event is and how it can be used to start an algorithm • Use different event blocks to start an algorithm. 	<p>This unit builds on their Coding by using events blocks. They will recognise many possible events blocks that can start algorithms and will learn an array of effects that can be coded for sprites.</p> <p>The unit aims to teach children the wider programming skills of solving problems, testing, debugging, improving and evaluating.</p> <p>By the end of the "block" ...most children will be able to:</p> <ul style="list-style-type: none"> • recognise several ways to start algorithms • Add algorithms to code effects for sprites • Modify and write their own programs to tell a joke or conversation
	<p>Online Safety starters Project Evolve Knowledge maps</p> <p>Regular E-Safety lessons from National Online Safety</p> <p>Starting to search the internet safely and effectively.</p>		

	Terms 1&2	Terms 3&4	Terms 5&6
YEARS	<p>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.</p> <p><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.</p>	<p>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 through a series of mini projects.</p> <p>By the end of the "block" ...most children will be able to:</p> <ul style="list-style-type: none"> • 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 	<p>In this term, children will further develop their knowledge of selection</p> <p>Using FLIP-IT, the children develop their skills using a "flipped" teaching model. The children access resources, whether it is images, videos or written examples and learn what they need to know to complete the different milestones of the task. The unit is designed to help children develop their skills in writing their own algorithms as well as editing and debugging existing codes. The children develop a simple maze game in Scratch.</p> <p>Children will also initially explore how to search effectively using Boolean operators to filter and refine their results.</p> <p>By the end of the "block" ...most children will be able to:</p> <ul style="list-style-type: none"> • Program an algorithm as a sequence of game instructions with actions and consequences through selection. • Use some Boolean operators in their searches to refine results
	<p>Online Safety starters Project Evolve Knowledge maps</p> <p>Regular E-Safety lessons from National Online Safety</p> <p>Searching the internet safely and effectively using a search engine.</p>		

	Terms 1&2	Terms 3&4	Terms 5&6
YEAR6	<p>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.</p> <p><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.</p>	<p>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.</p> <p>By the end of the "block" ...most children will be able to:</p> <ul style="list-style-type: none"> • 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 	<p>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.</p> <p>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".</p> <p>By the end of the "block" ...most children will be able to:</p> <ul style="list-style-type: none"> • 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
	<p>Online Safety starters Project Evolve Knowledge maps</p> <p>Regular E-Safety lessons from National Online Safety</p> <p>Searching the internet safely and effectively using a search engine.</p>		