



# Computing

PROGRESSION OF SKILLS  
TILSTOCK C OF E PRIMARY SCHOOL



## Year 1

### Online Safety and Digital Literacy

- Know that the internet is accessed all over the world and know which devices are connected to the internet.
- Know that they should always ask a responsible adult if they want to use a device.

### Information Technology

- Know how to log onto a computer
- Know how to navigate around the screen with a mouse
- Know how to type text using space bar for separate words to create something meaningful
- Know how to independently find and open an app on a tablet

### Computer Science

- Know which button on a device represents which action e.g. Bee Bot
- Know how to program a robot to follow simple sequence of instructions (1- 2 turns)
- Know how to make simple predications about an algorithm and a program. The Bee Bot will go....
- Know how to change (debug) the program to improve the route



## Year 2

### Online Safety and Digital Literacy

- Know devices that enable direct communication between people through images and text.
- Know what personal information is and that they should never share this with anyone they don't know.
- Know that they should tell a trusted adult if they are upset or worried about anything on a device.

### Information Technology

- Know how to save, retrieve and print work
- Know how to type and format text including basic punctuation and capital letters
- Know how to confidently use pointing device
- Know how to add simple images
- Know how to combine simple text and graphics, for instance create a poster for a purpose.

### Computer Science

- Know how to program a robot to achieve set goal (sequence of 6-7 instructions: maze, point collecting)
- Begin to use block programming e.g. Scratch Junior (Alex, Daisy Dino) to complete a simple program.
- Know how to debug more complex problems
- e.g. a route on a Bee Bot / Blue Bot / Alex / Logo etc... maze.



## Year 3

### Online Safety and Digital Literacy

- Know that some people on the internet should not be trusted
- Know that concerns about what they see on-line should be reported to a trusted adult
- Use a simple password
- Use a Search engine to find information given key words
- Know which websites are useful
- Know how to log in and out of websites used at school

### Information Technology

- Know how to log in to computer system as themselves and can find their documents (personal drive)
- Know how to open shared documents and pictures.
- Know how to use software to create a simple brochure or poster, Publisher or Pages
- Know how to sequence and add to slides to make a simple presentation Keynote, Powerpoint, iMovie
- Create a meaningful document that contains both pictures and text

### Computer Science

- Know how to use a block program (Scratch Jun, Scratch, Microbit Blocks)) to make a simple programme using sequencing and timing.
- Inputs sets of instructions according to programming language and environment (Logo, Scratch Jnr, Microbit etc..)
- Use a program Logo or Scratch to draw regular 2D shapes
- Independently know how to debug basic mistakes
- Begin to use conditionals - If I click here then this happens... Scratch Junior, Scratch, Microbit



## Year 4

### Online Safety and Digital Literacy

- Know that pictures and text share on-line can end up with strangers
- Reliably know what to do if they are exposed to unpleasant materials on any device
- Reliably uses a more complex password to access resources.
- Know what the key words are to enter into a Search engine to find information they want.
- Can select useful websites from the results of a search.
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### Information Technology

- Know how to save a document in a shared folder and retrieve this to continue working on it. Computer. On an iPad work could be shared by Airdrop or equivalent.
- Know how to organise their personal folder effectively for instance by organising work into folders for each year at school
- Know how to change font size and style; include shapes and backgrounds and to use the Spellcheck function
- Know how to use sequence to create an effective presentation or video Keynote, Powerpoint or iMovie.
- Know how to deliver a simple presentation to their peers

### Computer Science

- Know how to use a program to sequence, use conditionals and use a variety of inputs and outputs (Logo/Scratch).
- Know how to explain how their program works
- Know how to modify their program and Know how to predict the effects of any changes
- Know how to break sets of instructions into short steps to achieve goal. For instance drawing repeated squares to make a pattern,



## Year 5

### Online Safety and Digital Literacy

- Know the risks posed to them by using Social Media, including understanding that people may not be who they say they are.
- Know that it is irresponsible to share images of friends on-line without their permission.
- Know how to report concerns on-line.
- Effectively use a search engine to find multiple criteria using AND/OR to refine searches
- Know how to compare information from different websites and know that some sites may show bias

### Information Technology

- Know how to share their work from their personal folder to work collaboratively with others.
- Know how to use software to create an effective poster or leaflet.
- Know how to select the best program for the task.
- Using software know how to add data into a prepared spreadsheet to answer simple questions. For instance using Excel
- Independently, prepare an effective presentation to show their learning to others which includes some elements of timing or sequence. For instance in Keynote, Powerpoint, iMovie

### Computer Science

- Use customisation to change a working program to change its effect (backgrounds and sprite in scratch)
- Uses loops to achieve goals (Scratch – shapes, letters)
- Uses variables, conditional sentences (when/then), external triggers and loops to achieve set goals (creating game in Scratch, an interactive slides in Powerpoint or Keynote for instance to create an interactive story)



## Year 6

### Online Safety and Digital Literacy

- Know how to reduce the risks posed by using Social Media by managing their friends lists and privacy settings.
- Know that it is illegal to post or view 'rude' images of children.
- Know that hacking or misusing someone else's account is illegal.
- Know that search results can be manipulated by sponsorship and advertising.
- Know how to validate information found through searches by checking more than one source.
- Know that some news is 'fake.'

### Information Technology

- Know how to use the main features of office software to produce suitable documents and presentations for an audience. Microsoft Office or Apple suite or equivalent.
- Know how to edit a picture. For instance in Paint.net
- Know how to create a simple formula in a spreadsheet to work out given mathematical tasks such as adding a set of numbers.
- to create and sequence a video, add sound effects, transitions and title/subtitles. iMovie – much harder in Windows software.
- Know how to use two or more programmes to create a final piece of work. (eg, edit a picture before inserting into a document).

### Computer Science

- Use conditional sentences (when/then) to program objects (Kodu, Scratch)
- As above but use mathematical expressions when constructing conditionals eg trigger winning when (If loops >5 then...)
- Know how to explain what a program might do and accurately predict the effect of changes