



# Computing Milestones

Computing - Y1/Y2	
To code (Computer Science)	Purple Mash ref.
Understand and describe what an algorithm is.	
To create a simple algorithm (1-2 steps)	
To debug a simple algorithm (correct errors)	
Use logical reasoning to predict the behaviour of simple algorithms	
<b>To connect (Digital Literacy)</b>	
Recognise common uses of IT beyond school	
Use technology safely online, keeping personal information private	
Understand where to go for help and support when they have concerns about content or contact on internet (or other online technologies)	
Independently log on to the school network.	
Understand and describe online risks and the age rules for sites.	
Navigate simple webpages using forward, back and the home button.	
Switch on and shut down a device independently.	
Log-in and out of devices independently.	
Print a document with support.	
<b>To communicate</b>	
Use keyboard skills to be able to word process simple texts.	
Use word processing applications	
<b>To collect (Information Technology)</b>	
<b>Organise &amp; Store</b> - Save a document in their folder with support.	
<b>Retrieving</b> – Open work previously saved	
<b>Manipulate</b> – Edit work	
Use simple databases to find and record information in areas across the curriculum with support.	
Capture and download images/video from devices (e.g. camera) or applications (e.g. internet)	
Film short video clips with support.	

## Computing – Y3/Y4

### To code

Design and write programs that accomplish specific goals including controlling or simulating physical systems

De-bug simple algorithms by using logical reasoning

Use sequence, selection and repetition in programs

Work with variables and various forms of input and output

Use specified number of steps to travel, direction, turns & screen coordinates to control movement

### To connect

Understand the function, features and layout of a search engine.

Use search technologies effectively, locating relevant information and understanding how results are ranked.

Use technology safely and respectfully.

To know how to report concerns about online content.

Explain the need to stay safe when communicating online and understand the risks.

To know that comments made online can be hurtful or offensive and are the same as bullying.

Understand and describe the term 'copyright'.

### To communicate

Understand computer networks, including the internet

Recognise and name main components of computer hardware

Understand how networks can provide multiple services (E.g. the web; opportunities for communication and collaboration; online baking/shopping.)

To use word processing skills including bullets/numbering, text boxes, ctrl key, fonts, upper/lower cases.

### To collect

To begin to devise and construct databases

Make and explore branching databases.

Input data into a data base; generating graphs and charts.

To begin to devise and construct spreadsheets

## Computing – Y5/Y6

### To code

Design & write programs by turning a real life situation into an algorithm

Solve coding problems by decomposing them into smaller parts.

Read and predict other people's codes

De-bug increasingly complex algorithms by using logical steps

### To connect

Appraise web pages for credibility

Use search engines to provide relevant and accurate information to support their learning.

Use technology safely and respectfully and responsibly, recognising unacceptable behaviour online

To identify a range of ways to report concerns about online content and online contact.

Collaborate with others online on sites approved and moderated by teachers.

Understand the effects of cyber-bullying

Describe the dangers online and how to minimize risks and report problems.

### To communicate

Recognise and name main components of hardware which allow computers to join or form a network

Make appropriate choice about the best way to present information and best software for the purpose of the job

Manipulate images e.g cropping, changing the colour of the image etc.

Create presentations with range of links, images and sounds.

### To collect

Develop animation/filming skills: scripting, recording and editing sound, using narration and dialogue.

Edit short films and evaluate quality.

To devise and construct databases

Make and explore branching databases.

Collect, analyse, evaluate, input and present data and information generating graphs and charts.

To devise and construct spreadsheets

To make practical use of a spreadsheet to model real life situations