



## LONG TERM PLANNING

### Key Stage 1 Computing

#### The Purpose of Study

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world.

Computing has deep links with mathematics, science, and design technology and provides insights into both natural and artificial systems. At the core of computing is computing science, in which pupils are taught the principals of information and computation, how design systems work, and how to put this knowledge to use through programming. Building on all of this, children are equipped to use IT to create programs, systems and a range of content. Computing also ensures that children become digitally literate – able to use and express themselves and develop their ideas through computing – at a level suitable for the future workplace and as active participants in a digital world.

#### Aims of study

That all children:

- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- Can analyse problems in computational terms and have repeated practical experience of writing computer programs to solve such problems.
- Can evaluate and apply IT, including new or unfamiliar technologies, analytically to solve problems.
- Are responsible, competent, confident and creative users of ICT.



Based on the **Purple Mash** the following coverage occurs across the year:

	Autumn	Spring	Summer
Year 1	<p><b>Introduction to Purple Mash</b>- Introducing the essential skills for using Purple Mash.</p> <p><b>Creative Computing</b>– develop mouse skills and ICT skills using creative 2DIY tools.</p> <p><b>Data Explorers</b> – Grouping and Sorting objects.</p>	<p><b>Creating and following instructions</b>– understanding algorithms through unplugged activities before moving to sequential activities on digital devices.</p> <p><b>Animated Stories</b>– creating and combining digital art and text using 2Create.</p> <p><b>Coding</b> – Introducing block coding.</p>	<p><b>Technology around us</b> – defining and understanding what technology is, relating it to school, home and in the wider world.</p> <p><b>Making beats</b> –introducing the concept of digital music.</p>
Year 2	<p><b>Introduction to Purple Mash</b> – Refresher on using purple mash and essential skills for Year 2.</p> <p><b>Route Explorers</b>- Coding using 2GO. Writing simple instructions to move a screen turtle along routes.</p> <p><b>The Internet</b> – Understanding what the internet is.</p>	<p><b>Creating pictures</b> – Using a digital art tool to create art in different traditional styles.</p> <p><b>Spreadsheets</b>– Introducing spreadsheets and the way to organise data using the 2Calculate tool.</p> <p><b>Questioning</b>–Investigating data, how it is collected and how it can be presented.</p>	<p><b>Coding</b> – Develop coding skills using 2Code.</p> <p><b>Presenting ideas</b> –Creating mind maps using 2Connect to organise and present ideas.</p> <p><b>Making music</b>–Composing digital melodies using 2sequence.</p>



## Coverage

## Key Stage 1 Computing

### Year 1

#### **Introduction to Purple Mash:**

- To know how to log in and log out of Purple Mash
- To know how to open 2Dos and how to use them.
- To know how to save work in the work area.

#### **Creative computing:**

- To know to make digital art using 2DIY.
- To make and share jigsaws.
- To make a drag and drop game.

#### **Data Explorers:**

- To know how to sort and group quizzes.
- To understand what data is.
- To know how to represent data electronically.

#### **Creating and following instructions:**

- **To follow instructions**
- To know how to create simple instructions.
- To understand a simple algorithm.

#### **Animated Stories:**

- To create a piece of digital art and text.
- To know how to add animation to images.
- To know how to add sound.

### Year 2

#### **Introduction to Purple Mash:**

- To know how to login to Purple Mash.
- To refresh skills learnt in Year 1 and understand the essential skills for Year 2.

#### **Route Explores:**

- To know how to use 2GO.
- To consider direction and distance.
- To know how to create commands.
- To build an algorithm

#### **The Internet:**

- To be able to define the World Wide Web
- To recognise browsers and websites.
- To know how to connect to the internet.

#### **Creating Pictures:**

- To know how to use 2Paint picture templates.
- To know how to explore the features of a template.
- To compile an online art portfolio.
- To compare digital art effects to non digital art effects.

#### **Spreadsheets:**

- To understand cells and columns
- To know how to insert an image with values



**Coding:**

- To know how to use blocks to code.
- To understand objects, actions and events.
- To plan and design a simple program.

**Technology around us:**

- To know and understand what technology is.
- To recognise technology in the local environment and wider world.

**Making beats:**

- To create sounds using 2Explore.
- To know how to combine instruments using 2Beat.
- To compose a piece of digital music.

- To know how to use totalling tools.
- To create a graph.

**Questioning:**

- To know which question to ask to collect or present data.
- To know how to keep a tally.
- Using 2Count to present data.
- To know how to use a branching database.

**Coding:**

- To understand algorithms.
- To know how to sequence.
- To understand coding interaction between objects.
- To use timers.
- To know how to debug.

**Presenting ideas:**

- To know how to use and to make mind maps.
- To know how to use a mind map as a presenting tool.

**Making Music:**

- To understand a digital music tool.
- Relate the functions to musical terms.
- To compose music digitally.