

**Computing scheme of work sequence.**

Year R/1 One cycle

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Algorithms- Creating and following instructions	Coding	E safety Data explorers	Animated stories	Technology around us	Creative computing

Year 2 One cycle

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
The internet		Route explorers	Spreadsheets	Coding	Use of Word/ powerpoint to present ideas

Year 5/6 Cycle A

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Word processing		Spreadsheets and graphing		Coding	

Year 5/6 Cycle B

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Networking		Data bases- data detectives		Coding	

Year 3/4 Cycle A

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Emails	Coding	Branching data base		Logos	Spreadsheets

Year 3/4 Cycle B

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Animation	Effective searching and presenting ideas	Introduction to AI			Coding

## Year R/! One cycle

<p><b>Creative Computing</b> <span>4 Lessons</span></p> <p>Developing mouse skills and ICT skills using the creative 2DIY tools in Purple Mash.</p> <ul style="list-style-type: none"><li>● Making digital art</li><li>● Making and sharing jigsaws</li><li>● Making a drag and drop game</li></ul>	<p><b>Technology Around Us</b> <span>4 Lessons</span></p> <p>Defining and understanding what technology is. Relating this to school, home, outside and to its use in the wider world.</p> <ul style="list-style-type: none"><li>● Understanding what technology is</li><li>● Recognising technology in the local environment and wider world</li></ul>	<p><b>Animated Stories</b> <span>6 Lessons</span></p> <p>Creating and combining digital art and text to produce digital books using the 2Create a Story tool.</p> <ul style="list-style-type: none"><li>● Creating digital art and text</li><li>● Adding animation to images</li><li>● Adding sound</li></ul>
<p><b>Data Explorers</b> <span>6 Lessons</span></p> <p>Grouping and sorting objects. Relating this to organising and interpreting data. Using pictorial data on Purple Mash.</p> <ul style="list-style-type: none"><li>● Sorting and grouping quizzes</li><li>● Understanding what data is</li><li>● Representing data electronically</li></ul>	<p><b>Coding</b> <span>6 Lessons</span></p> <p>Introducing block coding using 2Code.</p> <ul style="list-style-type: none"><li>● Using blocks to code</li><li>● Understanding objects, actions and events</li><li>● Planning and designing a program</li></ul>	<p><b>Creating &amp; Following Instructions</b> <span>3 Lessons</span></p> <p>Understanding simple algorithms through unplugged activities before moving to sequencing activities on digital devices.</p> <ul style="list-style-type: none"><li>● Following instructions</li><li>● Creating Instructions</li><li>● Understanding simple algorithms</li></ul>

## Year 2 One cycle

### **Route Explorers**

4 Lessons

Coding using 2Go. Writing simple instructions to move a screen turtle along routes.

- Considering direction and distance
- Creating commands
- Building an algorithm

### **The Internet**

4 Lessons

Understanding what the internet is.

- Defining the World Wide Web
- Recognising browsers and websites
- Connecting to the internet

### **Coding**

6 Lessons

Developing coding skills using 2Code.

- Understanding algorithms
- Introducing sequencing
- Coding interaction between objects
- Using timers
- Debugging

### **Spreadsheets**

6 Lessons

Introducing spreadsheets and the way they organise data using the 2Calculate tool.

- Understanding cells and columns
- Inserting images with values
- Using totalling tools
- Creating graphs

## Year 3/ 4 Cycle A

### Spreadsheets

6 Lessons

Working with data using spreadsheets in the 2Calculate tool.

- Creating graphs
- Understanding cell addresses
- Using the formula bar
- Combining 2Calculate functions to analyse data

### Branching Databases

4 Lessons

Creating branching databases (binary tree databases) using 2Question.

- Asking binary questions
- Completing branching databases in 2Question
- Creating and testing branching databases

### Coding

6 Lessons

Developing coding skills using 2Code.

- Using flowcharts in 2Chart
- Using timers
- Introducing repetition
- Testing and debugging

### Email

6 Lessons

Communicating electronically using 2Email. Considering safety aspects of email communication.

- Composing and replying to emails
- Opening and sending attachments
- Using email safety

### Logo

4 Lessons

Learning the text-based Logo coding language to create patterns and shapes. Coding sequences, repetition, and procedures.

- Using Logo commands
- Writing commands in a sequence
- Refining code using repetition and procedures

## Year 3/ 4 Cycle B

### **Coding**

6 Lessons

Developing coding skills using 2Code.

- Introducing selection
- Exploring design properties
- Introducing loops
- Coding number variables

### **Animation**

6 Lessons

Creating digital animations using the 2Animate tool.

- Knowing the types of animation
- Understanding onion skinning
- Exploring animation features
- Using storyboarding

### **Introduction to AI**

4 Lessons

Understanding what artificial intelligence is, how it can help and the ethics around its use.

- Exploring how AI works
- Investigating the positive and negative impacts of AI
- Considering AI in the future

### **Effective Searching**

4 Lessons

Exploring how to effectively search the internet. Exploring safety aspects of online information.

- Using a search engine
- Search rankings
- Reliable searching
- Search algorithms

## Year 5/6 Cycle A

### Graphing

4 Lessons

Understanding the benefits of creating common graph types digitally. Using appropriate features to present data in the best possible way.

- Creating a range of graph types
- Incorporating multiple datasets
- Using graphs to solve a problem
- Exporting and importing files

### Spreadsheets

6 Lessons

Working with data using spreadsheets in the 2Calculate tool.

- Using formulae
- Exploring measurement conversions
- Carrying out numerical investigations
- Creating computational models

### Spreadsheets

5 Lessons

Using industry standard software to work with spreadsheets.

- Performing calculations
- Entering and using formulae
- Presenting data
- Solving real life problems

### Word Processing

6 Lessons

Using industry standard software to create documents.

- Creating documents
- Using images
- Entering and editing text
- Using tables and templates

### Coding

6 Lessons

Developing coding skills using 2Code.

- Coding efficiently by refining code
- Simulating a physical system
- Exploring decomposition and abstraction
- Using functions and variables

## Year 5/6 Cycle B

### **Coding**

6 Lessons

Developing coding skills using 2Code.

- Using functions
- Understanding flowcharts and control simulations
- Coding for user input

### **Data Detectives**

4 Lessons

Using the Data Detectives tool to work with large datasets to analyse complex data and answer questions.

- Filtering and sorting data
- Grouping data
- Linking tables

### **Networks**

4 Lessons

Learning what networks do and how they connect devices. Considering safety aspects of networks and collaboration.

- Identifying examples of networks
- Recognising types of networks
- Understanding internet services
- Discussing positive and negative use of networks