

The logo for Purple Mash, featuring the word "purple" in a purple font and "mash" in a white font, both on a black background with a torn-edge effect.

**purple  
mash**

# **Computing Scheme Unit Content Overview**

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- Information Technology
- Computer Science
- Digital Literacy

# Year 1

## Introduction to Purple Mash

Introducing Purple Mash and the essential skills for the year 1 scheme units.

- Logging in and out of Purple Mash
- Opening and using 2Dos
- Saving work in the Work area

3 lessons

## Creative Computing

Developing mouse skills and ICT skills using the creative 2DIY tools in Purple Mash.

- Making digital art
- Making and sharing jigsaws
- Making a drag and drop game

4 lessons

## Data Explorers

Grouping and sorting objects. Relating this to organising and interpreting data. Using pictorial data on Purple Mash.

- Sorting and grouping quizzes
- Understanding what data is
- Representing data electronically

6 lessons

## Creating & Following Instructions

Understanding simple algorithms through unplugged activities before moving to sequencing activities on digital devices.

- Following instructions
- Creating Instructions
- Understanding simple algorithms

3 lessons

## Animated Stories

Creating and combining digital art and text to produce digital books using the 2Create a Story tool.

- Creating digital art and text
- Adding animation to images
- Adding sound

6 lessons

## Coding

Introducing block coding using 2Code.

- Using blocks to code
- Understanding objects, actions and events
- Planning and designing a program

6 lessons

## Technology Around Us

Defining and understanding what technology is. Relating this to school, home, outside and to its use in the wider world.

- Understanding what technology is
- Recognising technology in the local environment and wider World

4 lessons

## Making Beats

Introducing the concept of digital music.

- Creating sounds using 2Explore
- Combining instruments using 2Beat
- Composing digital music

4 lessons

**Online Safety** To be delivered throughout the year using 2BeSafe.

- Information Technology
- Computer Science
- Digital Literacy

# Year 2

## Introduction to Purple Mash

An optional introduction to Purple Mash and the essential skills for beginning the year 2 scheme units. Use with classes who haven't used Purple Mash before or who need a refresher in the basics.

2 lessons

## Route Explorers

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

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

4 lessons

## The Internet

Understanding what the internet is.

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

4 lessons

## Creating Pictures

Using a digital art tool to create art in different traditional art styles.

- Using 2Paint a Picture templates
- Exploring the features of each template
- Compiling an online art portfolio
- Comparing digital art effects to non-digital effects

5 lessons

## Spreadsheets

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

6 lessons

## Questioning

Investigating data, how it is collected and how it can be presented.

- Asking the right question to collect or present data
- Keeping a tally
- Using 2Count to present the data
- Using a branching database

4 lessons

## Coding

Developing coding skills using 2Code.

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

6 lessons

## Presenting Ideas

Creating mind maps using 2Connect to organise and present ideas.

- Using and making mind maps
- Using a mind map as a presentation tool

4 lessons

## Making Music

Composing digital melodies using 2Sequence.

- Understanding a digital music tool
- Relating the functions to musical terms
- Composing music digitally

3 lessons

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# Year 3

## Introduction to Purple Mash

An optional introduction to Purple Mash and the essential skills for beginning the year 3 scheme units. Use with classes who haven't used Purple Mash before or who need a refresher in the basics.

2 lessons

## Email

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

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

6 lessons

## Route Planners

Using 2Go to create routes for screen turtles. Coding using angles of turn and repetition.

- Writing commands using rotation
- Creating algorithms and writing code
- Planning routes
- Repetition in 2Go

5 lessons

## Branching Databases

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

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

4 lessons

## Spreadsheets

Working with data using spreadsheets in the 2Calculate tool.

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

6 lessons

## Coding

Developing coding skills using 2Code.

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

6 lessons

## Presenting Ideas

Using industry standard software to create presentations.

- Adding media
- Customising with animation and timings
- Designing an effective presentation

5 lessons

## Touch Typing

Developing touch typing skills using 2Type.

- Recognising keyboard locations
- Understanding correct finger positioning
- Improving accuracy and speed

4 lessons

## micro:bit

Coding using a micro:bit as an external device. The software includes an emulator for use in schools without micro:bits.

- Using the LED display
- Sequencing and timing
- Understanding inputs and outputs
- Adding sounds and gestures

4 lessons

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# Year 4

## Introduction to Purple Mash

An optional introduction to Purple Mash and the essential skills for beginning the year 4 scheme units. Use with classes who haven't used Purple Mash before or who need a refresher in the basics.

2 lessons

## Unpacking Hardware and Software

Understanding technology and computer systems in relation to their hardware and software.

- Defining types of technology
- Knowing how systems work together
- Identifying hardware
- Understanding software

4 lessons

## Animation

Creating digital animations using the 2Animate tool.

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

6 lessons

## Logo

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

4 lessons

## Sound Stories

Adding narrative and sound effects to create audio books using 2Cast.

- Recording audio content
- Creating sound effects
- Post-production editing

4 lessons

## Effective Searching

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

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

4 lessons

## Coding

Developing coding skills using 2Code.

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

6 lessons

## Making Music

Using the Busy Beats tool to explore and compose music digitally.

- Exploring pulse, rhythm and tempo
- Understanding pitch and texture
- Composing a melody

4 lessons

## Introduction to AI

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

4 lessons

## micro:bit

Coding using a micro:bit as an external device. Includes an emulator for schools without micro:bits.

- Exploring sensor inputs and the accelerometer
- Using variables, inputs and outputs
- Coding with selection and loops

4 lessons

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# Year 5

## Introduction to Purple Mash

An optional introduction to Purple Mash and the essential skills for beginning the year 5 scheme units. Use with classes who haven't used Purple Mash before or who need a refresher in the basics.

2 lessons

## Quizzing

Making effective quizzes using 2Quiz. Exploring types of questioning and effective presentation of a quiz.

- Evaluating the features of a good quiz
- Choosing appropriate question types
- Making use of feedback and titles
- Testing and editing quizzes

5 lessons

## Databases

Using table-based databases for collecting, presenting, searching and analysing data.

- Understanding records and fields
- Creating a collaborative database
- Searching databases
- Analysing data

4 lessons

## Game Creator

Designing and making a 3D maze adventure game using 2DIY3D.

- Exploring the features of a good game
- Designing and making sprites and the game world
- Evaluating the playability of games

5 lessons

## Spreadsheets

Working with data using spreadsheets in the 2Calculate tool.

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

6 lessons

## Coding

Developing coding skills using 2Code.

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

6 lessons

## Word Processing

Using industry standard software to create documents.

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

6 lessons

## Concept Maps

Using and creating concept maps using 2Connect.

- Creating concept maps
- Presenting from a concept map
- Making collaborative concept maps

4 lessons

## Coding External Devices

Using the Purple Chip app on a tablet or phone device alongside Purple Mash.

- Using device movement
- Exploring text functions
- Coding interaction with the environment

6 lessons

## micro:bit

Coding using a micro:bit as an external device. Includes an emulator for schools without micro:bits.

- Exploring sensor inputs and the accelerometer
- Using selection, variables, inputs and outputs
- Coding for the micro:bit pins

4 lessons

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# Year 6

## Introduction to Purple Mash

An optional introduction to Purple Mash and the essential skills for beginning the year 6 scheme units. Use with classes who haven't used Purple Mash before or who need a refresher in the basics.

2 lessons

## Graphing

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

4 lessons

## Blogging

Understanding blogs and their features and how they can be used to engage an audience effectively.

- Planning the theme, content and structure
- Writing, editing and publishing a blog post
- Understanding blog moderation
- Reviewing and commenting on blog posts

4 lessons

## Data Detectives

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

4 lessons

## Networks

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

4 lessons

## Coding

Developing coding skills using 2Code.

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

6 lessons

## Introduction to Python

Introducing text-based Python coding using the Python in Pieces platform. Python in Pieces translates between block-code and Python.

- Comparing block and text code views
- Coding for text output
- Working with different datatypes
- Coding repetition in Python

4 lessons

## Spreadsheets

Using industry standard software to work with spreadsheets.

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

6 lessons

## 3D Modelling

Exploring computer aided design in 3D using the 2Design and Make tool.

- Working with viewpoints of 3D objects
- Adding and editing points on a model
- Designing for a purpose

4 lessons

## Binary

Understanding binary as a number system and its purpose and application in computing.

- Examining how binary represents data in digital systems.
- Counting in binary
- Converting from decimal to binary
- Exploring binary in relation to game states

4 lessons

## micro:bit

Coding using a micro:bit as an external device.

- Using the micro:bit as a data logger
- Measuring, recording and analysing environmental data
- Collecting data and exporting to graphical software

4 lessons

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