Curriculum
Subject – Whole School

Curriculum
Subject Rationale

At Wilbraham Primary school we recognise the importance of Computing. We intend to offer a curriculum that allows all children to explore and realise the need for the right balance and one they can continue to build on in their next stage of education and beyond. We want to develop a lifelong passion for Computing within our children.

Intent:	Technology is heavily relied upon now more than ever and it is essential that as educators, we provide the opportunities for children to feel well-equipped and confident in such a fast-changing world and to be aware of the positive impact, but also the dangers which come with it. We want our pupils to feel secure and informed about how to use technology safely and responsibly, as well as being able to apply the correct skills and knowledge learnt from the Computing curriculum to be able to use technology to the best of their abilities. Our aim is to inspire as many teaching staff as possible to develop their own confidence in Computing and to continue to develop their teaching practices to ensure that pupils are given the most innovative lessons which sparks further curiosity and enables a passion for wanting to engage further. We understand that technology holds great power and advantages for daily life and we understand that it is our duty as educators to promote this as positively as we can for pupils to acknowledge the incredible strength that it can play to support their futures.
Implementation:	The units of work fall into three broad categories: Computer Science (coding and computational thinking); Information Technology (spreadsheets; art, design and music; databases and graphing; writing and presenting); and Digital Literacy (communications and networks; internet and email). Our curriculum is designed to: • Build on prior learning year-on-year in order to secure children's knowledge and understanding of key concepts and skills in each area. • Allow for the repetition and overlapping of skills across units to ensure that children are secure and have had the opportunity to apply their knowledge in a variety of contexts. • Engage in events such as Safer Internet Day to maintain a high profile for Online Safety. • Revisit Online Safety in each unit throughout the year. • Ensure children's skills are built upon progressively each year to deepen their understanding. Our Computing curriculum enables our pupils to leave school with the knowledge of how to keep themselves and others safe online, digitally literate and with foundational skills to support them in the future.
Impact:	Pre-assessments through the means of quizzes provide teachers with a clear picture of children's knowledge. As do the vocabulary checks, so misconceptions can be addressed and lessons can be pitched accordingly to assess the need to do crash courses in subjects such as Spreadsheets or Coding. Assessment at the end of a unit via quizzes or a project, to assess the learnt knowledge for the subject. The way pupils share and publish their work will best show the impact of our curriculum. We also look for evidence through observing learning regularly.

Curriculum Map
Subject – EYFS

EYFS

Despite computing not being explicitly mentioned within the (EYFS) framework, there are many opportunities for young children to use technology to solve problems and produce creative outcomes.

	Children will:
EYFS	• Have access to a range of technology resources such as torches with switches, remote controlled cars, Bee bots, talking tins/buttons, voice recording toys, class iPads and IWB. • Use a range of technology resources to support learning in other areas of the curriculum. • Taught how to use the resources for different purposes e.g.- iPads to watch videos, play games, take photographs and listen to stories. • Opportunity to explore and use age appropriate software programmes (Purple Mash / Mini Mash). • Fine Motor skill activities to help build up the skills required for the keyboard / mouse control. • Areas are enriched with technology based toys for example – till, phones, remote controls etc. • Watch Wonderblocks on BBC player.

Curriculum Map
Subject – Reception

In early years (EYFS), computing is not about children becoming experts in complex software, but rather about laying the foundation for **computational thinking** and **digital literacy**. The focus is on playful, hands-on activities that introduce key concepts in a developmentally appropriate way.
Here are some of the key areas and activities that can be done in the early years for computing:

1. **Unplugged Activities (Computing without Computers)**
2. **Exploring and Using Technology**
3. **Understanding the World**
4. **E-Safety and Digital Citizenship**

Curriculum Map
Subject – Reception

1 **Unplugged Activities (Computing without Computers)**. These are some of the most important activities because they teach the core concepts of computing without needing a screen. They focus on problem-solving, logical reasoning, and giving instructions.

- **Algorithms:** This is the concept of a set of instructions to complete a task.
  - **Activity:** Giving a friend or a teacher a series of instructions to build a LEGO model or a block tower. "First, get a red block. Next, put it on top of the blue block. Last, add a green block."
  - **Activity:** Following a recipe to make "mud pies" or a snack. The recipe is the algorithm.
- **Sequencing and Debugging:** This is about putting instructions in the right order and fixing them if they go wrong.
  - **Activity:** Creating a sequence of movements for a "robot" (another child). "Robot, take two steps forward, turn around, and wave." If the robot does the wrong thing, the children can "debug" the instructions to make them work.
  - **Activity:** Following a picture-based set of instructions to complete a craft or a puzzle. If it doesn't look right, they can go back and check the steps.
- **Decomposition:** Breaking a big problem down into smaller, more manageable parts.
  - **Activity:** Planning to build a large den or fort. The children can discuss and draw a plan, breaking the big job into smaller tasks like "find blankets," "get pillows," and "set up the chairs.“

2. **Exploring and Using Technology** This is about understanding that technology is a tool and how it can be used for a purpose.

- **Programmable Toys:** Toys like Bee-Bots or other remote-controlled cars are perfect for this age group.
  - **Activity:** Children press buttons to program a Bee-Bot to move to a specific location on a mat, for example, from a "house" to a "car."
- **Digital Devices:** Providing access to simple, easy-to-use devices helps children become familiar with them.
  - **Activity:** Using a digital camera or tablet to take photos of their friends, their creations, or things they find in the classroom or outside. They can then view and talk about the pictures.
  - **Activity:** Using a CD player to listen to music or stories, and learning how to press "play," "pause," and "skip."
- **Creative and Interactive Software:** Using age-appropriate apps and software to create and learn.
  - **Activity:** Using a drawing or painting app to create a digital picture. They can experiment with different colours, brushes, and effects.
  - **Activity:** Engaging with educational apps that support literacy (e.g., phonics games) or numeracy (e.g., counting games).

Curriculum Map
Subject – Reception

3. **Understanding the World** Computing in early years is often integrated into the "Understanding the World" area of learning. This helps children see how technology fits into their everyday life.

- **Identifying Technology:**
  - **Activity:** Going on a "technology hunt" around the school or classroom to find and name different devices, such as a photocopier, a tablet, an interactive whiteboard, a laptop, or a camera.
- **Technology's Purpose:**
  - **Activity:** Discussing how technology helps people in their daily lives. For example, "How does a supermarket scanner work?" or "How does a parent use a phone to talk to a friend?"
  - **Activity:** Setting up a role-play area like a post office or a doctor's office with non-working keyboards, phones, and cash registers for children to use.

4. **E-Safety and Digital Citizenship** Even in early years, it's important to start building a foundation for being safe online.

- **The "Trusted Adult":**
  - **Activity:** A simple, yet crucial, rule is to teach children that if they see something that makes them feel sad, scared, or confused on a screen, they should immediately tell a trusted adult.
- **Being Kind Online:**
  - **Activity:** Discussing the importance of being kind to others, even in games or when using technology. This can be linked to wider lessons on empathy and social skills.

By focusing on these practical and foundational concepts, early years educators can provide a rich and engaging introduction to computing that is both safe and prepares children for the digital world they will grow up in.

Curriculum Map
Subject – Whole School

Y1	Introduction to purple mash	Creative Computing	Data Explorers	Creating and Following Instructions	Animated Stories	Coding	Technology Around Us	Making Beats
Y2	Route Explorers	The Internet	Creating Pictures	Spreadsheets	Questioning	Coding	Presenting ideas	Making Music **Alternative Music Labs**
Y3	Email	Route Planners	Branching Databases	Spreadsheets	Coding	Presenting Google Slides	Touch Typing BBC Dancemat	Microbit

Digital Literacy
Computer Science
Information Technology

Unplugged Computing

Curriculum Map
Subject – Whole School

Y4	Animations	Logo	Sound Stories	Effective Searching	Coding	Composing Beats	Introduction to AI	Micro:bit	
Y5	Quizzing	Databases	Game Creator	Spreadsheets	Coding	Word Processing Google	Concept Maps	Micro:Bits	
Y6	Graphing	Blogging	Data Detectives	Coding	Intro To Python	Spreadsheets	3D Modelling	Binary	Micro:Bit

- Digital Literacy
- Computer Science
- Information Technology

Unplugged Computing

Curriculum Map
Subject – Endpoints KS1

By the end of KS1

To Code	To Collect		To Communicate	To Connect	
Write and test simple programs. • To know that an algorithm is a set of instructions and that the order is important • To know how to identify a problem within a simple algorithm and how to fix it Plan write and test simple programs • To use logical reasoning to predict the behaviour of simple programs. • To know how to plan a sequence of instructions to achieve a purpose	Sort and group data • To know what criteria is • To know examples for a variety of criteria, e.g. eye colour, house type. • To know how to group items using a range of criteria • To know the difference between sorting and grouping • To know how to sort or group items using a range of criteria Spreadsheets • To understand what rows and columns are • To know how to enter data into cells • To add images to a spreadsheet • To know how to do simple calculations in a spreadsheets	Organise data and use to conduct simple searches • To know how to design a binary tree to sort pictures • To know how to use a database to answer more complex search questions • To know how to use the 'search' tool to find information in a database • To know spreadsheets can be used to create tables and graph • To know how to copy, cut and paste in a spreadsheet • To know how to use tools in a spreadsheet to automatically total rows and columns • To know how to create a table of data on spreadsheet • To know how to use data to create a block graph • To save, open and edit spreadsheets	Know how to use technology purposefully to create and store digital content. • To know how to paint with different colours and brushes • To know how to create shapes and fill areas • To know how to add text to a page/ image • To use simple edit tools (undo and redo Know how to use technology purposefully to create, organise, store, manipulate and retrieve digital content • To understand that you can make music / art and present it in different ways • To know how to retrieve a file to edit in a computer program. • To understand the importance of feedback in order to make improvements)	Recognise the common uses of information technology beyond school. • To identify and know how technology is used in school and beyond Understand how to communicate safely online. • To know what information is and how to keep it safe • To know how to be respectful (online and offline) • To recognise and report inappropriate behaviour (online and offline)	Understand what a Digital Footprint is and its implications. • To know that the information put or searched for online leaves a digital footprint. • To know how to keep personal data safe online • To know how to complete safe searches and select appropriate information. • To identify a variety of different devices that connect to the internet

Curriculum Map
Subject - Overview Y1

Year 1

Information Technology | Computer Science | Digital Literacy

Introduction to Purple Mash — 3 Lessons
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

Creative Computing — 4 Lessons
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

Data Explorers — 6 Lessons
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

Creating & Following Instructions — 3 Lessons
Understanding simple algorithms though unplugged activities before moving to sequencing activities on digital devices.

- Following instructions
- Creating Instructions
- Understanding simple algorithms

Animated Stories — 6 Lessons
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

Coding — 6 Lessons
Introducing block coding using 2Code.

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

Technology Around Us — 4 Lessons
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

Making Beats — 4 Lessons
Introducing the concept of digital music.

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

Online Safety: To be delivered throughout the year using 2BeSafe

Vocab	Knowledge Organiser	Learning Mats

Curriculum Map
Subject - Overview Y2

Year 2

Information Technology | Computer Science | Digital Literacy

Introduction to Purple Mash — 2 Lessons
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.

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

Creating Pictures — 5 Lessons
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

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

Questioning — 4 Lessons
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

Coding — 6 Lessons
Developing coding skills using 2Code.

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

Presenting Ideas — 4 Lessons
Creating mind maps using 2Connect to organise and present ideas.

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

Making Music — 3 Lessons
Composing digital melodies using 2Sequence.

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

Vocab	Knowledge Organiser	Learning Mats

Online Safety: To be delivered throughout the year using 2BeSafe

Curriculum Map
Subject – Endpoints Year 3

By the end of LKS2

To Code	To Collect			To Communicate	To Connect
Design and write programs that accomplish specific goals. • To know how to debug multiple problems within their own algorithm • To know how to use a sequence and repetition in programs. • To begin to know how to integrate multimedia components	**Create a range of charts and graphs from data in a spreadsheet** • To know how to add and edit in a table layout. • To know how spreadsheet programs can automatically create graphs from data. • To know that different charts and graphs can represent the same data. • To know how to navigate and name cells in specific locations	**Use and debug branching databases** • To know how to sort objects using just yes and no questions. • To know how to ask appropriate and relevant questions to sort information • To know how to edit and adapt an existing branching database to accommodate new entries. • To know how to create, use and debug their own branching database • To know how to select and save images.	**Present results in a range of formats and use 'sorting' to analyse results** • To know how to enter results into a graph. • To know how to discuss and compare results. • To know how to share a graph with others. • To know how to use the sorting option to make analysis easier.	**Know how to create content that accomplishes a given goal using a variety of software on a range of devices** • To know how to order and group objects. • To know how to recognise an effective layout. • To know how to combine text and images. • To know how to lay out objects effectively • To know how to input on a keyboard (touch typing, shortcuts) • To know how to create a presentation	**Recognise how technology can provide multiple services and be used for collaboration.** • To know how to search the internet and think critically about the results that are returned. • To understand how search results are selected and ranked. • To understand how websites target your digital footprint to promote advertisements. • To learn about the meaning of age-restriction symbols and to understand why PEGI restrictions exist • To know how to send and respond to emails safely • To identify a variety of different devices that allow communication with others *(email, facetime, voice memo, phone call)*

Curriculum Map
Subject – Endpoints Year 4

By the end of LKS2

To Code	To Collect	To Communicate		To Connect	
Design and write programs that include controlling or simulating physical systems. • To know how to debug multiple problems within their own algorithms/programs using a range of software • To begin to know how to integrate multi media components • To know how variables affect an outcome	**Use formulae and combine tools in spreadsheets** • To know how to use place value in a spreadsheet, including currency and decimals • To know how to add formulae to a cell to calculate results. • To know how to use a variety of tools within a spreadsheet. • To know how to use a series of data to create line graphs. • To know how to interpret a line graph. • To know how to use a spreadsheet in a real-life situation, e.g. budgeting	**To know how to design and create a range of programs and content.** • Animate objects • Build sequences of images into animations • Tell a story through animation • To know how to create simple musical rhythms • To develop more complex pieces of music involving rhythm and melody	**To know how to create content that accomplishes a given goal and presenting information to a specific audience.** • To know how to create and debug an algorithm to create a procedure. • To know how to create and debug an algorithm that uses setpos to draw shapes. To know how to create and debug an algorithm with different colours. • To know how to create and debug an algorithm to produce text.	**Recognise how to be responsible digital citizens** • To create safe online profiles and explain why • To know how to protect themselves from online threats (phishing, malware) • To understand the term plagiarism and how to avoid it. • To identify what is a reasonable, responsible balance between active and digital behaviour • To develop and further their understanding of acceptable / unacceptable online behaviour and know	**Recognise the component parts of hardware which allow computers to join and form a network** • To know and name component parts of a computer (desk top – mouse, touch pad, screen, microphone

Curriculum Map
Subject - Overview Y3

Year 3

Information Technology | Computer Science | Digital Literacy

Introduction to Purple Mash — 2 Lessons
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.

Email — 6 Lessons
Communicating electronically using 2Email. Considering safety aspects of email communication.

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

Route Planners — 5 Lessons
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

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

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

Coding — 6 Lessons
Developing coding skills using 2Code.

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

Presentations — 5 Lessons
Using industry standard software to create presentations.

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

Touch Typing — 4 Lessons
Developing touch typing skills using 2Type.

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

micro:bit — 4 Lessons
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

Online Safety: To be delivered throughout the year using 2BeSafe

Vocab	Knowledge Organiser	Learning Mats

Curriculum Map
Subject - Overview Y4

Year 4

Information Technology | Computer Science | Digital Literacy

Introduction to Purple Mash — 2 Lessons
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.

Unpacking Hardware and Software — 4 Lessons
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

Animation — 6 Lessons
Creating digital animations using the 2Animate tool.

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

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

Sound Stories — 4 Lessons
Adding narrative and sound effects to create audio books using 2Cast.

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

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

Coding — 6 Lessons
Developing coding skills using 2Code.

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

Composing Beats — 4 Lessons
Using the Busy Beats tool to explore and compose music digitally.

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

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

microbit — 4 Lessons
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

Online Safety: To be delivered throughout the year using 2BeSafe

Vocab	Knowledge Organiser	Learning Mats

Curriculum Map
Subject – Endpoints Year 5

By the end of UKS2

To Code	To Collect	To Communicate		To Connect
Design and write programs that accomplish specific goals by decomposing them into smaller parts. • To know how to simplify sequences, selection and repetition in programs • To know how to work with variables and with various forms of inputs and outputs • To know how to generate appropriate inputs and predicted outputs to test a program • To understand how to create efficient algorithms	**Create spreadsheets to solve calculations and problems** • To know that data can be organised in different ways. • To know how to enter formulae to carry out calculations. • To know that data can be presented in a range of ways. • To know how to format tables/graphs. • To know how to enter information and search their own database • To know how to create a database and add records • To know what a field is and be able to add information • To understand that there are different ways to search a database.	**To know how to select, use and combine a variety of software (including Internet services) on a range of digital devices.** • To use concept maps to plan a series of ideas • To work collaboratively to present a range of ideas • To design a game concept including a purpose and rules for play • To evaluate a game and identify improvements	**To design content by drawing and manipulating 3D shapes.** • To know how to use 3D modelling software • To know how to draw 3D shapes. • To know how to add detail to 3D drawings. • To know how to add and manipulate 3D models. • To know how to create a complex 3D model.	**Recognise how to be responsible digital citizens and the impact it has on others** • To know how images and digital technology can be presented as false reality online • To know how to apply online safety rules to real life scenarios • To know how to keep personal data safe online – eg strong passwords • To know the importance of thinking critically about online use

Curriculum Map
Subject – Endpoints Year 6

By the end of UKS2

To Code	To Collect	To Communicate	To Connect	
Design, write and explain more complex programs that fulfil specific purposes and apply with independence • To know how to simplify sequences, selection and repetition in programs and conditional coding (functions) • To know and apply knowledge of working with variables and with various forms of inputs and outputs • To know and apply knowledge how to generate appropriate inputs and predicted outputs to test a program • To know apply use efficient algorithms	**Utilise shortcuts and formulae when creating Excel spreadsheets** • To know how spreadsheets are used in real life. • To understand which formulae to use. • To understand how to copy and paste formulae. • To know how to interpret data and make conclusions. • To know how to debug errors within a spreadsheet	**To know how to select, use and combine a variety of software (including Internet services) on a range of digital devices.** **Unit 6.4 Blogging** • To plan and create a blog • To respond to a blog **Unit 6.7 Quizzing** • To understand different styles of questioning • To choose an appropriate tool for a quiz • To develop and test a quiz	**Demonstrate being responsible digital citizens** • To know and identify the benefits and pitfalls of online relationships, location sharing services, social media • To know and identify cyber bullying and strategies to be able to deal with this. • To understand (as a Year 6 child) how and why age restrictions apply	**Recognise the component parts of a network** • Know the difference between the world wide web and the internet • To know and name network hardware and types – *eg servers and routers, internets and intranets, virtual private networks*

Curriculum Map
Subject - Overview Y5

Year 5

Information Technology | Computer Science | Digital Literacy

Introduction to Purple Mash — 2 Lessons

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

Quizzing — 5 Lessons

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

Databases — 4 Lessons

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

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

Game Creator — 5 Lessons

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

Spreadsheets — 6 Lessons

Working with data using spreadsheets in the 2Calculate tool.

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

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

Word Processing — 6 Lessons

Using industry standard software to create documents.

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

Concept Maps — 4 Lessons

Using and creating concept maps using 2Connect.

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

Coding External Devices — 6 Lessons

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

micro:bit — 4 Lessons

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

Vocab	Knowledge Organiser	Learning Mats

Online Safety: To be delivered throughout the year using 2BeSafe

Curriculum Map
Subject - Overview Y6

Year 6

Information Technology | Computer Science | Digital Literacy

Introduction to Purple Mash — 2 Lessons
An optional introduction to Purpl ash and the essential skills for beginning ye year 6 scheme units. Use with classes who haven't used Purple Mash before or who need a refresher in the basics.

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

Blogging — 4 Lessons
Understanding how blogs and their features can effectively engage an audience.

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

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

Coding — 6 Lessons
Developing coding skills using 2Code.

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

Introduction to Python — 4 Lessons
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

Spreadsheets — 5 Lessons
Using industry standard software to work with spreadsheets.

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

3D Modelling — 5 Lessons
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

Binary — 5 Lessons
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

micro:bit — 5 Lessons
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

Vocab	Knowledge Organiser	Learning Mats

Online Safety: To be delivered throughout the year using 2BeSafe

Curriculum Map

Subject – 2BeSafe - Being Safe in a Digital World

	September	October	November	January	February	March	April	June
	Week of Coding Week 15th September	Week beg 6th October Mental Health Day	Week Beg 10th November Anti Bullying Week	Week Beg 19th January Blue Monday	Week Beg 9th February E-safety day	Week beg 2nd March World book Week	Week beg 13th April April Fools Day	Week beg 22nd June Diversity Week
All year groups	Privacy and Security	Online Relationships	Online Bullying	Health, wellbeing and lifestyle	Managing Online Information	Copyright and ownership	Online Reputations	Self-image and identity
Parents Invite		Year 1	Year 4 Year 6	Year 3	Year 2		Year 5	Reception

Rights Linked to each topic to be displayed in class saved in the drive *2BeSafe - Being Safe in a Digital World

	Right 16	Right 10 Right 19 Right 36	Right 19 Right 34	Right 24 Right 31 (Year 6 Right 36 aswell)	Right 17	Right 13 Right 14 Right 16 Right 17	Right 15	Right 1 Right 7