

Cranmore Infant School

COMPUTING

(currently under review 2021/2022)

*We love to learn and together
we grow*

Intent & Vision

COMPUTING

At Cranmore Infants we strive to embrace current and emerging technologies to facilitate the learning experience of the whole school community. Computing has become part of the way we all work and integral to our daily lives and to the future of our children.

Almost everything we do at school now involves the use of Computing: lesson delivery via interactive whiteboard; online lesson research; homeschool computer link for homework and consolidation of skills; teaching plans and resource materials; communication by e-mail; document distribution and storage; assessment information analysis; production and editing of reports.

We believe that having the skills and knowledge empowers us, and that all pupils should be aware of and develop competence in. Pupils who can think in a way that uses or relates to computers are better able to conceptualise, understand and use computer-based technology, and so are better prepared for today's world and future and use it safely, respectfully and responsibly.

Implementation -Computing

Aims

Through teaching Computing we aim to facilitate children's participation in a world of rapidly-changing technology.

- Be confident, competent and discerning users of digital technology which will prepare them for participation in a rapidly changing world. We encourage children to develop initiative, independent learning skills, engage through enriched multi-media learning experiences and celebrate success.
- Appreciate the relevance of digital literacy in our society and that they see it as an essential tool for learning, communication, finding information and for controlling and understanding their environment.
- Become creative, logical, critical thinkers, who reason systematically and work collaboratively. Risk taking and innovation will be enriched through the computer science.
- Analyze problems in computational terms, and have repeated practical experience of writing basic computer programs in order to solve such problems.
- To explore their attitudes towards computing and its value to them. For example, to learn about issues of security, confidentiality and accuracy. As children's confidence grows they will be able to make informed and discerning choices about their use of digital technology
- We aim to ensure that teachers develop confidence and competence to use digital technology in the effective teaching of this subject.
- We aim to ensure that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable them to use it effectively.

Computing whole school schema

| | EYFS | Year 1 | Year 2 |
|-----------|--|---|---|
| knowledge | <ul style="list-style-type: none">• Children recognize that a range of technology is used in places such as homes and schools.• They select and use technology for particular purposes. | <ul style="list-style-type: none">• Online Safety & Exploring• Grouping & Sorting• Pictograms• Lego Builders• Maze Explorers• Animated Story Books• Coding• Spreadsheets• Technology outside school | <ul style="list-style-type: none">• Coding• Online Safety• Spreadsheets• Questioning• Effective searching• Creating pictures• Making music• Presenting ideas |

Computing whole school schema

| | EYFS | Year 1 | Year 2 |
|---------------|---|---|---|
| Key Questions | <ul style="list-style-type: none"> • What technology can you see around you? • What is it used for? • How do you make it work? • What are the computer parts called? • What programmes do you use? | <p>What is a password and why should we keep them safe?</p> <p>What is a digital avatar?</p> <p>Where is my work stored on Purple Mash?</p> <p>In what ways can we sort objects?</p> <p>What is an instruction?</p> <p>Why do we need to debug code?</p> <p>What is 2Go?</p> <p>How do I undo a mistake on 2Go?</p> <p>What is 2Create a Story?</p> <p>What is an animated story?</p> <p>How can I make my story better?</p> <p>How can you make characters move in a 2Code program?</p> <p>Why is it useful to design before coding?</p> <p>What does a spreadsheet look like?</p> <p>How could you use a spreadsheet to add up values?</p> <p>How could you use the count and speak tools?</p> <p>What is technology?</p> <p>How does technology make our lives easier?</p> | <p>What is an algorithm?</p> <p>Why is it useful in coding?</p> <p>Why is a search bar useful?</p> <p>What is an email?</p> <p>What is meant by my Digital Footprint?</p> <p>Why would you copy and paste when using a spreadsheet?</p> <p>How could a spreadsheet help you when you are planning some shopping?</p> <p>Look at the graph made in 2Calculate showing the class' favourite pets. Which is the most popular?</p> <p>How does a Pictogram show information?</p> <p>How is information organised in a binary tree?</p> <p>How can a database help organise information?</p> <p>How can I search the Internet?</p> <p>What are the main features of Impressionism?</p> <p>What are the main features of Pointillism?</p> <p>What are the main features of Surrealism?</p> <p>What is meant by digital music?</p> <p>How can I change how my music sounds?</p> <p>What is it meant by the tempo of the music?</p> |

Computing whole school scheme - progression

| Year 1 | Computer Science | | | Information technology | Digital literacy | |
|------------------|---|-----------------------------------|---|---|---|---|
| Statement | Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. | Create and debug simple programs. | Use logical reasoning to predict the behaviour of simple programs. Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. | Use logical reasoning to predict the behaviour of simple programs. Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. | Use logical reasoning to predict the behaviour of simple programs. Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. | Use logical reasoning to predict the behaviour of simple programs. Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. |

Computing whole school scheme - progression

| Year 1 | Computer Science | | | Information technology | Digital literacy | |
|----------------|---|---|---|--|--|---|
| Outcome | Children understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that an algorithm written for a computer is called a program. | Children can work out what is wrong with a simple algorithm when the steps are out of order, e.g. The Wrong Sandwich in Purple Mash and can write their own simple algorithm, e.g. Colouring in a Bird activity. Children know that an unexpected outcome is due to the code they have created and can make logical attempts to fix the code, e.g. Bubbles activity in 2Code. | When looking at a program, children can read code one line at a time and make good attempts to envision the bigger picture of the program. Children can, for example, interpret where the turtle in 2Go challenges will end up at the end of the program. | Children are able to sort, collate, edit and store simple digital content e.g. children can name, save and retrieve their work and follow simple instructions to access online resources, use Purple Mash 2Quiz example (sorting shapes), 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count. | Children understand what is meant by technology and can identify a variety of examples both in and out of school. They can make a distinction between objects that use modern technology and those that do not e.g. a microwave vs. a chair. | Children understand the importance of keeping information, such as their usernames and passwords, private and actively demonstrate this in lessons. Children take ownership of their work and save this in their own private space such as their My Work folder on Purple Mash. |

Computing whole school scheme - progression

| Year 2 | Computer Science | | | Information technology | Digital literacy | |
|------------------|--|-----------------------------------|--|--|--|--|
| Statement | Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions | Create and debug simple programs. | Use logical reasoning to predict the behaviour of simple programs. | Use technology purposefully to create, organise, store, manipulate and retrieve digital content. | Recognise common uses of information technology beyond school. | Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. |

Computing whole school scheme

| Year 2 | Computer Science | | | Information technology | Digital literacy | |
|----------------|---|---|--|---|--|--|
| Outcome | <p>Children can explain that an algorithm is a set of instructions to complete a task. When designing simple programs, children show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code.</p> | <p>Children can create a simple program that achieves a specific purpose. They can also identify and correct some errors, e.g. Debug Challenges: Chimp. Children's program designs display a growing awareness of the need for logical, programmable steps.</p> | <p>Children can identify the parts of a program that respond to specific events and initiate specific actions. For example, they can write a cause and effect sentence of what will happen in a program.</p> | <p>Children demonstrate an ability to organise data using, for example, a database such as 2Investigate and can retrieve specific data for conducting simple searches. Children are able to edit more complex digital data such as music compositions within 2Sequence. Children are confident when creating, naming, saving and retrieving content. Children use a range of media in their digital content including photos, text and sound.</p> | <p>Children can effectively retrieve relevant, purposeful digital content using a search engine. They can apply their learning of effective searching beyond the classroom. They can share this knowledge, e.g. 2Publish example template. Children make links between technology they see around them, coding and multimedia work they do in school e.g. animations, interactive code and programs.</p> | <p>Children know the implications of inappropriate online searches. Children begin to understand how things are shared electronically such as posting work to the Purple Mash display board. They develop an understanding of using email safely by using 2Respond activities on Purple Mash and know ways of reporting inappropriate behaviours and content to a trusted adult.</p> |

EYFS

Computing knowledge

- ▶ In Early Years, the children spend time exploring technology around them in order for them to recognize that there is a range of technology used both at school and at home for certain purposes.
- ▶ They interact and explore their environment finding out how things work and acquire basic skills in turning on and operating some ICT equipment.
- ▶ Talk about ICT apparatus, what it does, what they can do with it and how to use it carefully and safely.

EYFS

Computing curriculum

| Autumn | | Spring | | Summer | |
|---|---|---|--|---|--|
| Nursery | Reception | Nursery | Reception | Nursery | Reception |
| Marvellous Me | More about me | Stories and adventures | Off on an adventure My community time for a tale | Come outside | All creatures great and small |
| <p>Use IT to develop skills across areas of learning e.g. talking books, paint program, telephone, mobile phone</p> <p>Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.</p> | <p>Observe and talk about ICT in the environment e.g. telephone, fax, TV, CD player</p> <p>Use mouse to move objects round the screen -click, drag, drop</p> <p>Use a keyboard to communicate information,</p> <p>Completes a simple program on a computer.</p> <p>Knows how to operate simple equipment, e.g. turns on CD player and uses remote control.</p> | <p>Observe and talk about ICT in the environment e.g. telephone, microwave, TV, iPad</p> <p>Shows an interest in technological toys with knobs or pulleys, or real objects such as floor robots, ipads, cameras or mobile phones</p> | <p>Use mouse to select and assemble words in a sentence</p> <p>Use ICT for finding things out in relation to learning theme, and know that ICT comes from a variety of sources e.g. CD rom, internet, video, tape etc</p> <p>Can co-ordinate actions to use technology, for example, call a telephone number.</p> | <p>Knows that information can be retrieved from computers</p> <p>Can comment on the reasons why things happen or how things work.</p> <p>Completes a simple program on a computer.</p> <p>Uses ICT hardware to interact with age-appropriate computer software.</p> | <p>Early Learning Goal Children recognise that a range of technology is used in places such as homes and schools.</p> <p>They select and use technology for particular purposes.</p> |

EYFS

Key Vocabulary

| <u>E-Safety</u> | <u>Programming</u> | <u>Multimedia</u> | <u>Technology in Our Lives</u> | <u>Data Handling</u> |
|-----------------------------------|----------------------------------|--|---|------------------------------|
| Ask Internet Safety/privacy | Equipment Buttons Movement | Screen Mouse Images Keyboard Paint | Technology Share Create Internet | Collect Count Organise |
| Choices Internet Privacy | Equipment Buttons Movement | Screen Mouse Images Keyboard Paint Save open | Technology Share Create Internet | Collect Count Organise |

Programmes and resources

| Term | Autumn | Spring | Summer |
|-----------|--|--------|--------|
| Nursery | <p>Children have access to different types of technology in the classroom on a daily basis both independently and adult lead</p> <p>They use a variety of technology such as</p> <p>Interactive white board</p> <p>PC , mouse, screen and keyboard.</p> | | |
| Reception | <p>Tablet/iPad</p> <p>Technology around the school (with adult support) - Photocopier Microwave cooker, hob, breadmaker, mixer, kettle, laminator, Heating system, Washing machine, Fridge/Freezer</p> <p>Beebots/floor robots</p> <p>Re chargeable torches</p> <p>Digital postcards</p> <p>CD players/Ipods</p> <p>Remote control vehicles</p> <p>Scales</p> <p>Tills</p> <p>Role play digital items - Phones, computers, walkie talkies, thermometres</p> <p>Programmes on the computer include:</p> <p>Mini Mash/Purple Mash, Top marks, ICT games, phonics play,</p> | | |

Year One

Computing Knowledge - key learning

Years One builds upon what has been taught in the Early Years as the children look in more depth at each technological area of the computing curriculum. (NC statements) These are mainly taught through Purple mash.

- **Computer Science**
- **Information technology**
- **Digital literacy**

Year One

Computing Knowledge - key learning

| | | | |
|-----|---|-----|--|
| 1.1 | <p>To log in safely and to understand the importance of logging out.</p> <p>To learn how to find saved work in the Online Work area and find teacher comments.</p> <p>To learn how to search Purple Mash to find resources.</p> <p>To become familiar with the icons and types of resources available in the Topics section.</p> <p>To start to add pictures and text to work.</p> <p>To explore the Tools and Games section of Purple Mash To learn how to open, save and print.</p> | 1.4 | <p>To compare the effects of adhering strictly to instructions to completing tasks without complete instructions.</p> <p>To follow and create simple instructions on the computer.</p> <p>To consider how the order of instructions affects the result.</p> |
| 1.2 | <p>To sort items using a range of criteria.</p> <p>To sort items on the computer using the 'Grouping' activities in Purple Mash.</p> | 1.5 | <p>To understand the functionality of the direction keys.</p> <p>To understand how to create and debug a set of instructions (algorithm).</p> <p>To use the additional direction keys as part of an algorithm.</p> <p>To understand how to change and extend the algorithm list.</p> <p>To create a longer algorithm for an activity.</p> <p>To set challenges for peers.</p> <p>To access peer challenges set by the teacher as 2dos.</p> |
| 1.3 | <p>To understand that data can be represented in picture format.</p> <p>To contribute to a class pictogram.</p> <p>To use a pictogram to record the results of an experiment.</p> | 1.6 | <p>To introduce e-books and the 2Create a Story tool.</p> <p>To add animation to a story.</p> <p>To add sound to a story, including voice recording and music the children have composed.</p> <p>To work on a more complex story, including adding backgrounds and copying and pasting pages.</p> <p>To share e-books on a class display board</p> |

Year One

Computing Knowledge - key learning

| | |
|-----|--|
| 1.7 | <p>To understand what coding means.</p> <p>To use design mode to set up a scene.</p> <p>To add characters.</p> <p>To use code blocks to make the character perform actions.</p> <p>To use collision detection.</p> <p>To save and share work.</p> <p>To know the save, print, open and new icon.</p> |
| 1.8 | <p>To know what a spreadsheet program looks like.</p> <p>How to open 2Calculate in Purple Mash.</p> <p>How to enter data into spreadsheet cells.</p> <p>To use 2Calculate image tools to add clipart to cells.</p> <p>To use 2Calculate control tools: lock, move cell, speak and count.</p> |
| 1.9 | <p>To walk around the local community and find examples of where technology is used.</p> <p>To record examples of technology outside school.</p> |

Year One

Purple Mash Computing Vocabulary

Year 1 - Key Vocabulary

| 1.1 Online Safety and Exploring Purple Mash | 1.2 Grouping and sorting | 1.3 Pictograms | 1.4 Lego builders | 1.5 Maze Explorers | 1.6 Animated stories |
|---|-----------------------------|------------------------------|--|---|--|
| Log in Username Password Avatar My Work Log out Save Notification Topics Tools | Sort Criteria | Pictogram Data collate | Instruction Algorithm Computer Program Debug | Direction Challenge Arrow Undo Rewind Forward Backwards Right turn Left turn Debug Instruction Algorithm | Animation E-Book Font File Sound Effect Display Board |

Year One

Purple mash Computing Vocabulary

| Year 1 - Key Vocabulary | | |
|--|--|----------------------------------|
| 1.7 Coding | 1.8 Spreadsheets | 1.9 Technology outside school |
| Action Background Button Character Code block Code Design Coder Coding Collision Detection Command Design Mode Input Object Program Properties Scale Stop command Sound When clicked When Key | Arrow keys Backspace key Cursor Columns Cells Clipart Count Tool Delete key Toolbox Lock tool Move cell tool Rows Speak Spreadsheet | Technology |

YEAR ONE

Computing curriculum

| | Autumn 1 | Spring 1 | Summer 1 |
|--|--|--|---|
| | <ul style="list-style-type: none">Unit 1.1 Online Safety & Exploring Purple Mash Number of Weeks - 4 Tools Used - Avatar creator Paint Projects Writing Templates 2Count (Pictograms) 2Explore (Music) <p>To login safely.</p> <p>To start to introduce to the children the idea of 'ownership' of their creative work.</p> <p>To know how to find saved work in the Online Work area and find teacher comments.</p> <p>To know how to search Purple Mash to find resources.</p> <p>To become familiar with the types of resources available in the Topics section.</p> <p>To become more familiar with the icons used in the resources in the Topic section. To start to add pictures and text to work.</p> <p>To explore the Tools section of Purple Mash and to learn about the common icons used in Purple Mash for Save, Print, Open, New.</p> <p>To explore the Games section on Purple Mash. To understand the importance of logging out when they have finished</p> | <ul style="list-style-type: none">Unit 1.4 Lego Builders Weeks - 3 Programs - 2Quiz Paint Projects Writing Templates <p>To emphasise the importance of following instructions.</p> <p>To follow and create simple instructions on the computer.</p> <p>To consider how the order of instructions affects the result.</p> <ul style="list-style-type: none">Unit 1.5 Maze Explorers Weeks - 3 Programs - 2Go <p>To understand the functionality of the basic direction keys in Challenges 1 and 2.</p> <p>To be able to use the direction keys to complete the challenges successfully</p> <p>To understand the functionality of the basic direction keys in Challenges 3 and 4.</p> <p>To understand how to create and debug a set of instructions (algorithm).</p> <p>To use the additional direction keys as part of their algorithm. To understand how to change and extend the algorithm list.</p> <p>To create a longer algorithm for an activity.</p> <p>To provide an opportunity for the children to set challenges for each other.</p> <p>To provide an opportunity for the teacher to set these new challenges as 2Dos for all the class to try.</p> | <ul style="list-style-type: none">Unit 1.7 Coding Weeks - 6 Programs - 2Code <p>To understand what coding means in computing.</p> <p>To create unambiguous instructions like those required by a computer.</p> <p>To build one- and two-step instructions using the printable code cards.</p> <p>To introduce 2Code.</p> <p>To use the 2Code program to create a simple program.</p> <p>To use Design Mode to add and change backgrounds and characters. They will use the Properties table to change the look of the objects.</p> <p>To use the Properties table to change the look of the objects.</p> <p>To design a scene for a program.</p> <p>To use code blocks to make the characters move automatically when the green Play button is clicked.</p> <p>To add an additional character who moves when clicked.</p> <p>To explore the When Key and When Swiped commands (on tablets if available).</p> <p>To use the Stop button to make characters stop when the background is clicked</p> <p>To explore a method to code interactivity between objects.</p> <p>To use Collision Detection to make objects perform actions.</p> <p>To use the sound property.</p> |

YEAR ONE

Computing curriculum

| | Autumn 2 | Spring 2 | Summer 2 |
|--|---|---|--|
| | <ul style="list-style-type: none">Unit 1.2 Grouping & Sorting Weeks - 2 Programs - 2Quiz <p>To sort items using a range of criteria. To sort items on the computer using the 'Grouping' activities in Purple Mash.</p> | <ul style="list-style-type: none">Unit 1.6 Animated Story Books Weeks - 5 Programs - 2Create A Story <p>To be introduced to e-books and to 2Create a Story To continue a previously saved story. To add animation to a story. To add sound to a story including voice recording and music the children have created. To work on a more complex story including adding backgrounds and copying and pasting pages. To use additional features to enhance their stories. To share their e-books on a class display board.</p> | <ul style="list-style-type: none">Unit 1.8 Spreadsheets Weeks - 3 Programs - 2Calculate <p>Introduction to spreadsheets Adding images to a spreadsheet and using the image toolbox Using the 'speak' and 'count' tools in 2Calculate to count items</p> |
| | <ul style="list-style-type: none">Unit 1.3 Pictograms Weeks - 3 Programs - 2Count 2Connect <p>To understand that data can be represented in picture format To contribute to a class pictogram To use a pictogram to record the results of an experiment.</p> | | <ul style="list-style-type: none">Unit 1.9 Technology outside school Weeks - 2 Programs - Writing Templates <p>To walk around the local community and find examples of where technology is used. To record examples of technology outside school.</p> |

Year Two

Computing Knowledge

Years Two builds upon what has been taught in the Year One and the children look in more depth at each technological area of the computing curriculum. (NC statements) These are mainly taught through Purple mash.

- **Computer Science**
- **Information technology**
- **Digital literacy**

By the end of KS1 children will be able to-

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Year Two

Computing Knowledge - key learning

| | | | |
|-----|--|-----|---|
| 2.1 | <ul style="list-style-type: none">To understand what an algorithm is.To design algorithms and then code them.To compare different object types.To use the repeat command.To use the timer command.To know what debugging is and debug programs. | 2.4 | <ul style="list-style-type: none">To learn about data handling tools that can give more information than pictograms.To use yes/no questions to separate information.To construct a binary tree to identify items. To use 2Question (a binary tree database) to answer questions.To use a database to answer more complex search questions.To use the Search tool to find information. |
| 2.2 | <ul style="list-style-type: none">To know how to refine searches using the Search tool.To use digital technology to share work on Purple Mash to communicate and connect with others locally.To have some knowledge and understanding about sharing more globally on the Internet.To introduce Email as a communication tool using 2Respond simulations.To understand how we should talk to others in an online situation.To open and send simple online communications in the form of email.To understand that information put online leaves a digital footprint or trail.To identify the steps that can be taken to keep personal data and hardware secure. | 2.5 | <ul style="list-style-type: none">To understand the terminology associated with searching.To gain a better understanding of searching on the Internet.To create a leaflet to help someone search for information on the Internet. |
| 2.3 | <ul style="list-style-type: none">To use 2Calculate image, lock, move cell, speak and count tools to make a counting machine.To learn how to copy and paste in 2Calculate.To use the totalling tools.To use a spreadsheet for money calculations.To use the 2Calculate equals tool to check calculations.To use 2Calculate to collect data and produce a graph. | 2.6 | <ul style="list-style-type: none">To learn the functions of the 2Paint a Picture tool.To learn about and recreate the Impressionist style of art (Monet, Degas, Renoir).To recreate Pointillist art and look at the work of pointillist artists such as Seurat.To learn about the work of Piet Mondrian and recreate the style using the lines template.To learn about the work of William Morris and recreate the style using the patterns template. |

Year Two

Computing Knowledge - key learning

| | |
|---|---|
| <p>2.7 To make music digitally using 2Sequence. To explore, edit and combine sounds using 2Sequence. To edit and refine composed music. To think about how music can be used to express feelings and create tunes which depict feelings. To upload a sound from a bank of sounds into the Sounds section. To record and upload environmental sounds into Purple Mash. To use these sounds to create tunes in 2Sequence.</p> | <p>2.8 To explore how a story can be presented in different ways. To make a quiz about a story or class topic. To make a fact file on a non-fiction topic. To make a presentation to the class.</p> |
|---|---|

Year Two

Purple mash Computing Vocabulary

Black - Purple Mash Red - additional

| 2.1 Coding | 2.2 Online Safety | 2.3 Spreadsheets | 2.4 Questioning | 2.5 Effective searching | 2.6 Creating pictures |
|--|--|--|--|--|---|
| <p>Action Algorithm Bug Character Code block Code Design Command Debug/Debugging Design Mode</p> <p>Forward Backward Right-angle turn Sequence Predict</p> | <p>Search Displayboard Internet Sharing Email Attachment Digital Footprint</p> <p>Appropriate/inappro private sites Cyber-bullying Keyword searching Communication</p> | <p>Backspace key Copy and Paste Columns Cells Count Tool Delete key Equals tool Image Toolbox Lock tool Move cell tool Rows Speak Tool Spreadsheet</p> <p>Enter/return Caps lock Documents Templates</p> | <p>Pictogram Question Data Collate Binary Tree Avatar Database</p> | <p>Internet Search Search engine</p> <p>Information sources Purposes Website content</p> | <p>Impressionism Palette Pointillism Share Surrealism Template</p> <p>Paint effects Animation</p> |

Year Two

Purple mash Computing Vocabulary

| 2.7 Making music | 2.8 Presenting ideas |
|--|--|
| Bpm (Beats per min) Composition Digitally Instrument Music Sound Effects (Sfx) Soundtrack Tempo Volume | Concept Map (Mind Map) Node Animated Quiz Non-Fiction Presentation Narrative Audience |

YEAR TWO

Computing curriculum

Autumn 1

- Unit 2.1 Coding (5 weeks)
Main Programs - 2Code

To understand what an algorithm is.
To create a computer program using
To compare the Turtle and Character objects.
To use the button object.
To understand how use the Repeat command.
To understand how to use the Timer command.
To know what debugging means.
To understand the need to test and debug a program repeatedly.
To debug simple programs.
To create programs using different kinds of objects whose behaviours are limited to specific actions.
To predict what the objects will do in other programs, based on their knowledge of what the object is capable of.
To discuss how logic helped them understand that they could only predict specific actions, as that is what the objects were limited to.
To use all the coding knowledge, they have learned throughout their programming lessons to create a more complex program that tells a story.

Spring 1

- Unit 2.4 Questioning Weeks - 5 Programs - 2Question, 2Investigate 2Calculate

To show that the information provided on pictogram is of limited use beyond answering simple questions.
To use YES or No questions to separate information.
To construct a binary tree to separate different items.
Use 2Question (a binary tree) to answer questions.
To use a database to answer more complex search questions. To use the search tool to find information.

Summer 1

- Unit 2.7 Making Music Weeks - 3 Programs - 2Sequence

To be introduced to making music digitally using 2Sequence.
To explore, edit and combine sounds using 2Sequence
To add sounds to a tune they've already created to change it.
To think about how music can be used to express feelings and create tunes which depict feelings.
To upload a sound from a bank of sounds into the Sounds section.
To record their own sound and upload it into the Sounds section.
To create their own tune using the sounds which they have added to the Sounds section.

YEAR TWO

Computing curriculum

Autumn 2

- **Unit 2.2 Online Safety Weeks - 2 Programs - Writing Templates Display boards 2Respond (2Email)**

To know how to refine searches using the Search tool.

To know how to share work electronically using the display boards.

To use digital technology to share work on Purple Mash to communicate and connect with others locally.

To have some knowledge and understanding about sharing more globally on the Internet.

To introduce Email as a communication tool using 2Respond simulations.

To understand how we talk to others when they aren't there in front of us.

To open and send simple online communications in the form of email.

To understand that information put online leaves a digital footprint or trail.

To begin to think critically about the information they leave online.

To identify the steps that can be taken to keep personal data and hardware secure.

Spring 2

- **Unit 2.5 Effective Searching Weeks - 3 Programs - Browser 2Quiz Writing Templates**

To understand the terminology associated with searching.

To gain a better understanding about searching on the Internet.

To create a leaflet to help someone search for information on the Internet

Summer 2

- **Unit 2.8 Presenting Ideas Weeks - 4 Programs - 2Connect (Mind Map) 2Create a Story (ebook) 2Quiz Writing Template**

To explore how a story can be presented in different ways.

To make a quiz about a story or class topic.

To make a fact file on a nonfiction topic.

To make a presentation to the class.

YEAR TWO

Computing curriculum

Autumn 2

- **Unit 2.3 Spreadsheets Weeks - 4 Programs - 2Calculate**

Reviewing prior use of spreadsheets
Copying and Pasting Totalling tools
Using a spreadsheet to add amounts
Creating a table and block graph

Spring 2

- **Unit 2.6 Creating Pictures Weeks - 5 Programs - 2Paint A Picture Writing Templates**

To be introduced to 2Paint A Picture. To look at the impressionist style of art (Monet, Degas, Renoir).
To recreate pointillist art and look at the work of pointillist artists such as Seurat.
To look at the work of Piet Mondrian and recreate it using the Lines template.
To look at the work of William Morris and recreate it using the Patterns template.
To explore surrealism and eCollage

Summer 2

Programmes

Used in Purple mash for units

| Term | Autumn | | | Spring | | | Summer | | |
|--------|--|--|---------------------------------------|--|---|--|--------------------------------------|---|--|
| Year 1 | 1.1 Online Safety and Exploring Purple Mash Various | 1.2 Grouping and sorting 2DIY | 1.3 Pictograms 2Count | 1.4 Lego builders 2DIY | 1.5 Maze Explorers 2GO | 1.6 Animated stories 2CREATE A STORY | 1.7 Coding 2CODE | 1.8 Spreadsheets 2CALCULATE | 1.9 Technology outside school VARIOUS |
| Year 2 | 2.1 Coding 2CODE | 2.2 Online Safety Various | 2.3 Spreadsheets 2CALCULATE | 2.4 Questioning 2Question, 2Investigate | 2.5 Effective searching Browse | 2.6 Creating pictures 2PaintAPicture | 2.7 Making music 2sequence | 2.8 Presenting ideas Various | |
| OTHER | Programmes on the computer include: Top marks, ICT games, Phonics play, | | | | | | | | |