



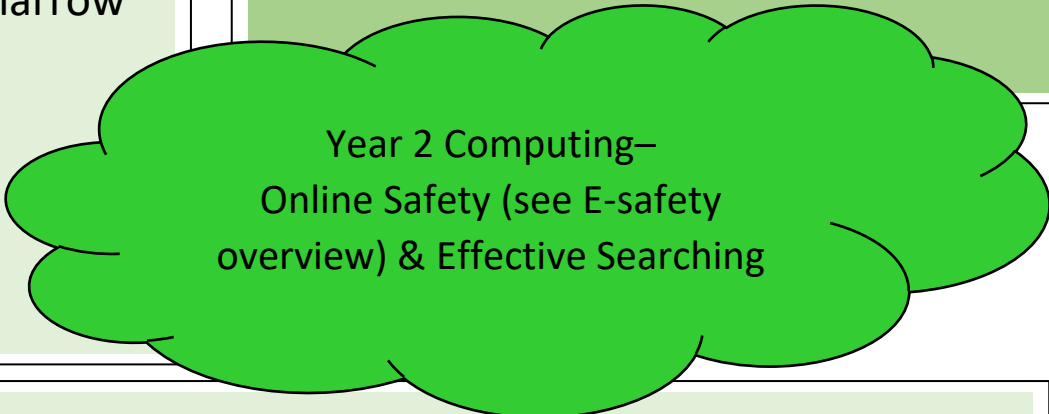
### The Big Picture

Teaching children to effectively use search engines to find answers encourages children to follow their curiosities and become independent using the internet. As the internet contains vast amounts of information, this unit teaches children to filter according to relevance which makes it easier to find what they are searching for. This unit will teach children to use appropriate vocabulary to narrow searches and to find the correct information.

### What do we already know?

#### Knowledge Retrieval:

This is a starter unit, there is no knowledge needed to begin this unit.



### NC objectives

Pupils should be taught 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

### Key unit objectives

- To know how to refine searches using the Search tool.
- 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 the terminology associated with the Internet and searching.
- To gain a better understanding of searching the Internet.
- To create a leaflet to help someone search for information on the internet.

### Key Questions

- Can children share the work they have created to a display board?
- Do children know that Email is a form of digital communication?
- Can children open and send an email to a 2Respond character?
- Can children recall the meaning of key internet and searching terms?
- Can children identify basic parts of a web search engine search page?
- Do children understand how to read a web search results page?
- Can children find information on a website?
- Can they click links in a website?

### Key vocabulary and understanding for concept connectors

Display board – In Purple Mash, this is a tool that enables you to share work with a wide audience.

Sharing – post or repost (something) on a website.

Email – messages distributed by electronic means from one computer user to one or more people.

Internet – a global computer network providing a variety of information and communication facilities, consisting of interconnected networks and computers.

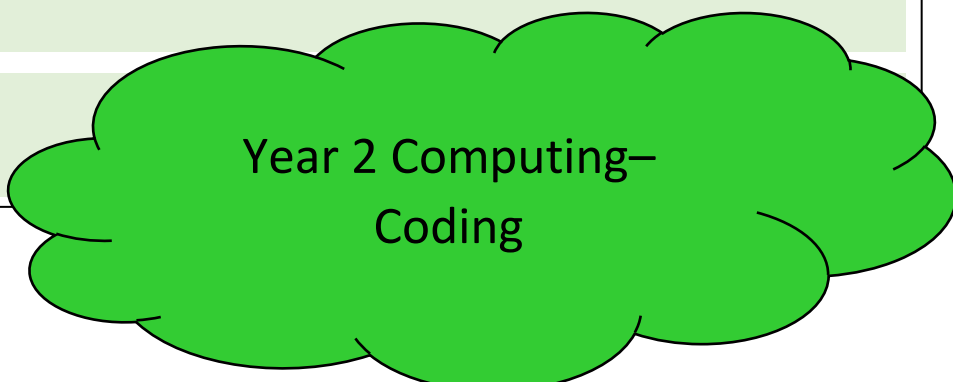
Search – look for information in a database or the World Wide Web using a search engine.

Search engine – a program that searches for and identifies items on the World Wide Web.



### The Big Picture

This unit helps children to develop problem-solving skills. They will begin to learn to quickly fix and try again in different ways when something doesn't work out. Coding also equips children with the ability to stick with a problem and work on finding a solution. This problem-solving technique is transferable to a lot of other aspects of their learning.



Year 2 Computing - Coding

### What do we already know?

#### Knowledge Retrieval:

- To understand what instructions are.
- To predict what will happen when instructions are followed.
- To understand that computer programs work by following instructions called code.
- To use code to make a computer program.
- To understand what actions are.
- To begin to understand how code executes when a program is run.

### Key vocabulary and understanding for concept connectors

Action – types of commands, which are run on an object.

Algorithm – a precise step by step set of instructions used to solve a problem or achieve an objective.

Button – an object on the screen which can be clicked.

Debug/Debugging – looking for any problems in the code, fixing and testing them.

Predict – say what you think will happen when a piece of code is run.

Run – to cause the instruction in a program to be carried out.

Test – when code is run to check that it works correctly.

Design mode – used to create the look of a 2Code computer program when it is run.

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### Key unit objectives

- To understand what an algorithm is.
- To understand that algorithms follow a sequence.
- To design an algorithm that follows a timed sequence.
- To create a program using a given design.
- To know what debugging means.
- To understand the need to test and debug a program repeatedly.
- To debug simple programs.

### Key Questions

- Can children explain that an algorithm is a set of instructions?
- Can children describe the algorithms they created?
- Can they predict the outcomes of a set of instructions?
- Can they test and amend a set of instructions?
- Can they write a simple program and test it?
- Can children explain what a button does in their program?
- Can children explain what debugging means?
- Can they debug simple programs?



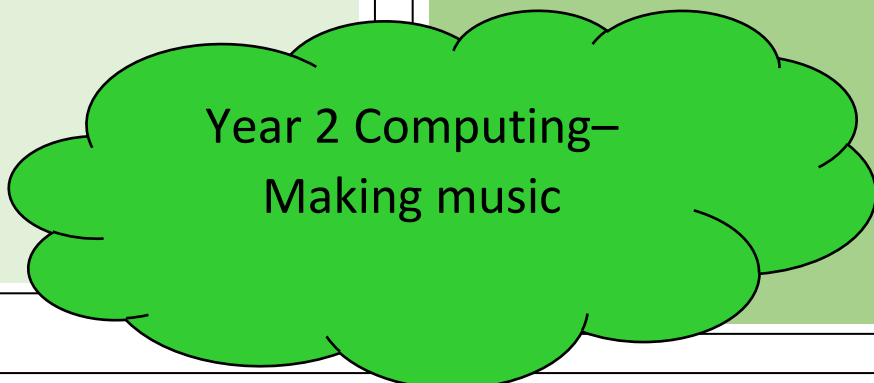
### The Big Picture

This unit provides children with new 'learning pathways' which inspire the digital skills and willingness to experiment new programs and applications. It encourages children to be creative by composing, improvising, and performing simultaneously, introducing a driving force of change in digital music learning pathways.

### What do we already know?

#### Knowledge Retrieval:

This is a starter unit, there is no knowledge needed to begin this unit.



### NC objectives

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### Key unit objectives

- To be introduced to making music digitally using 2Sequence.
- To explore, edit and combine sounds using 2Sequence.
- To add sounds to a tune to improve it.
- To think about how music can be used to express feelings and create tunes with portray feelings.
- To upload a sound from a bank of sounds.
- To create own music using sounds added to the Sounds section.

### Key Questions

- Can children understand what 2Sequence is and how it works?
- Can they use the different sounds within 2Sequence to create a tune?
- Do children understand how music can be used to express feelings?
- Can they change the volume of background sounds?
- Can children create their own tune using some of the chosen sounds?

### Key vocabulary and understanding for concept connectors

Bpm – the number of beats played in a minute.

Composition – a creative work, especially a poem or piece of music.

Instrument – an object or device for producing musical sounds.

Music – vocal or instrumental sounds (or both) played alone or combined.

Sound effects (sfx) – a sound other than speech or music made artificially for use in a play, film, or piece of music.

Soundtrack – a recording of the musical accompaniment of a film.

Tempo – the speed at which a passage of music is, or should be, played.

Volume – how loud a piece of music is.



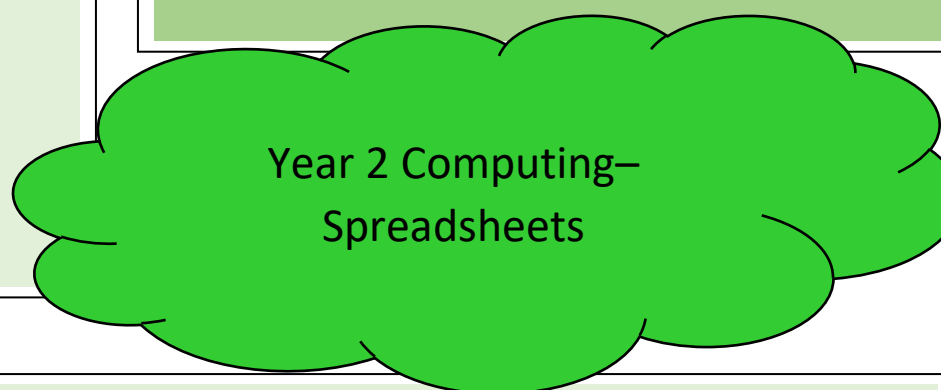
### The Big Picture

This unit gives children a basic understanding of what spreadsheets do and ensures they understand the power of a spreadsheet through mathematical concepts. It will allow children to organise, calculate, graph and analyse data. These skills provide children with a critical foundation in preparation for future studies and the workplace.

### What do we already know?

#### Knowledge Retrieval:

This is a starter unit, there is no knowledge needed to begin this unit.



### Key vocabulary and understanding for concept connectors

Cells – an individual section of a spreadsheet grid.

Columns – vertical reference points for the cells in a spreadsheet.

Delete key – use this key to remove the contents of a cell.

Equals tool – tests whether the entered calculation in the cells to the left of the tool has the correct answer in the cell to the right of the tool.

Backspace key – use this key to delete the character before the current cursor position.

Rows – vertical reference points for the cells in a spreadsheet.

Spreadsheet – a computer program that represents information in a grid of rows and columns.

Move cell tool – this tool makes a cell's contents moveable by drag-and-drop methods.

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### Key unit objectives

- To understand what a spreadsheet looks like.
- To be able to navigate around a spreadsheet and enter data.
- To learn new vocabulary related to spreadsheets.
- To use the 'move cell' tools.
- To use copying, cutting, and pasting shortcuts in 2Calculate.
- To use 2Calculate to solve a simple puzzle.
- To add and edit data in a table layout.

### Key Questions

- Can children navigate around a spreadsheet?
- Can they explain what rows and columns are?
- Can they enter data into cells?
- Can they use the 'move cell' tool so that images can be dragged around a spreadsheet?
- Can children copy, cut and paste in a spreadsheet?
- Can children use images in a spreadsheet?
- Can children use tools in a spreadsheet to automatically total rows and columns?





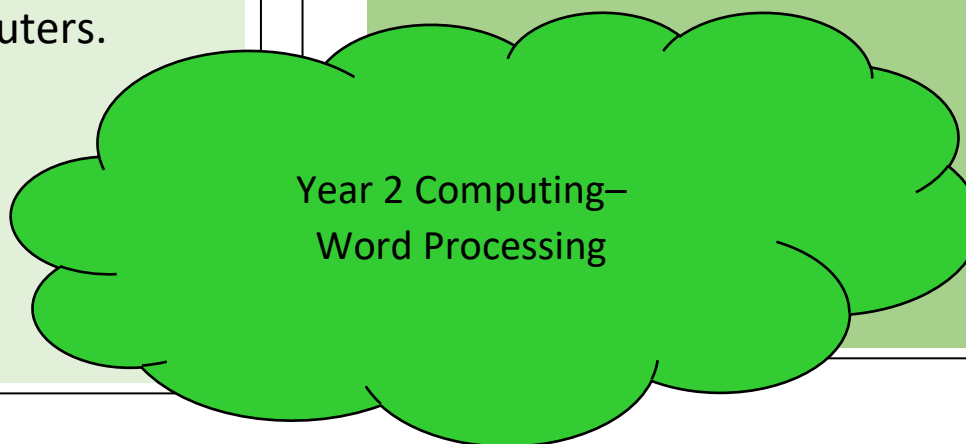
### The Big Picture

Computer skills are becoming a fundamental part of education. This unit enables children to create documents, edit them using a keyboard and mouse, store them for later retrieval, and print them to a printer. It also prepares children for the wider world as children who learn to type efficiently and use basic computer functions have significant advantage over students that have no knowledge of computers.

### What do we already know?

#### Knowledge Retrieval:

- To know what digital technology is.
- To identify and use a mouse.
- To identify and use a keyboard.



### Key vocabulary and understanding for concept connectors

Word processing – a computer program used to write and revise documents.

Bold – a set of type characters that are darker and heavier than normal.

Italic – a typeface with letters slanted slightly to the right.

Underline – a section of text in a document where the words have a line running beneath them.

Backspace key – deletes the character before the current cursor position.

Copy and paste – a way to copy information from the screen into the computer's memory and paste it elsewhere without re-typing.

Delete key – removes the contents.

Cursor – a moveable indicator on a computer screen.

Home row keys – the centre row on a keyboard that has the home keys.

Modify – make changes to something.

Document – a piece of written, printed, or electronic matter that provides information or evidence.

### NC objectives

Pupils should be taught to:

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### Key unit objectives

- To explain which the home row keys are and how to find them for typing.
- To use the spacebar and backspace correctly.
- To type and make simple alterations to text using buttons in Word Processing.
- To search for, import and alter appropriate images.
- To modify text in a document.
- To use copy and paste to copy text from one document to another.

### Key Questions

- Can children identify the home row keys?
- Are children able to use the spacebar and backspace bar appropriately?
- Do children understand how to delete or modify text?
- Can they search for an appropriate image and import it into their document?
- Are they able to use the copy and paste shortcuts to move information from one document to another?
- Can they highlight text to change its format? (**B**, *I*, U)?



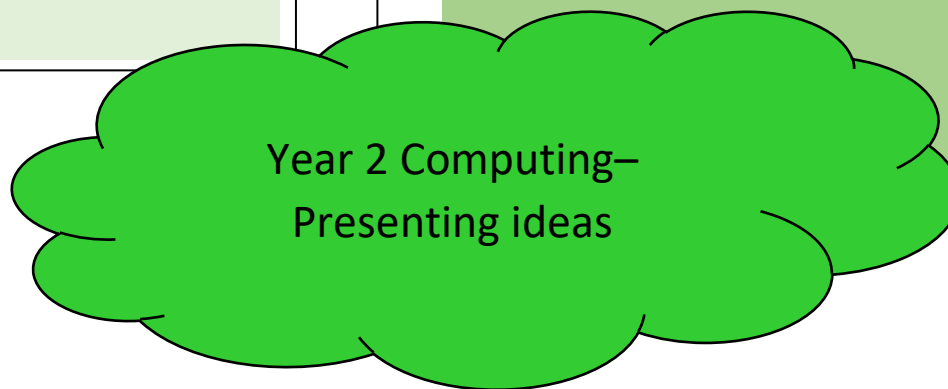
The Big Picture

In this unit, children will learn to explain and discuss ideas which allows children to learn about and interact with the world around them. These skills form a foundation for children’s engagement with learning, building knowledge, and making connections to real-world experiences. Not only is this unit beneficial to their education, but it also helps to boost their confidence as they progress throughout the school.

What do we already know?

Knowledge Retrieval:

- To know technology can be used to help with our learning in other subjects.
- To understand we can connect with people and places across the world.
- To highlight text to change its format (**B**, U, /)
- To use the shape tools to draw.
- To insert/delete a word using the mouse and arrow keys.



NC objectives

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Key unit objectives

- 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.

Key Questions

- Can children examine a traditional tale and present as a mind map, as a quiz, as an e-book and as a fact file?
- Do children know that digital content can be represented in many forms?
- Can they add an appropriate photo?
- Can children collect, organise and present data and information in digital content?
- Can they experiment with text, pictures and animation to make a simple slide show?

Key vocabulary and understanding for concept connectors

Concept Map (Mind Map) – a tool for organising and representing knowledge.

Quiz – a test of knowledge, especially as a competition between individuals or teams as a form of entertainment.

Presentation – a speech or talk in which a new product, idea, or piece of work is shown and explained to an audience.

Audience – the people giving attention to something.