St Monica's Catholic Primary School

Philosophy

Every child is a unique gift from God, with his or her own unique gifts.

Our Catholic school, inspired by the teaching of Jesus Christ, will always endeavour to meet the needs of every child within our school.

At St. Monica's, we strive to ensure that all children and staff are offered the opportunity to develop to their full potential in individual, educational, moral, intellectual and spiritual needs.

Our Mission Statement is "Let Trust, Respect and Love live here."

What we teach and what your children learn in Computing

Please see below a summary of our plans (organised in Knowledge Organisers and Scheme of Work Summaries by Year Group) for teaching and learning in Computing at our school.

If you want further information on the curriculum, including how it is differentiated for children within classes who are at different stages of learning including your child, please contact your child's teacher of email the school on stmonicas@st-monicas.co.uk

Our Intent, Implementation and Impact statement for Computing

Intent:

At St. Monica's Catholic Primary School, we aim to prepare our learners for their future by giving them the opportunities to gain knowledge and develop skills that will equip them for an ever-changing digital world. Our Computing curriculum focuses on progression skills in computer science, information technology, digital literacy and online safety to ensure that children become competent in using technology in and informed and safe way. These skills are revisited repeatedly to ensure that the learning is embedded and that the skills are developed.

Implementation:

Computing is taught in specific Computing lessons. Teachers use the 'Purple Mash' scheme, published by 2Simple. The scheme has been closely referenced against the 2014 National Curriculum attainment targets in order to ensure progression and coverage. Lessons in the scheme have been planned in our school curriculum so they can meet the needs of all of our pupils with a particular focus on key vocabulary for our children who speak more than one language. Our plans are differentiated beyond the core knowledge listed to provide for the learning needs of all learners and to ensure all learners, including SEND, Pupil Premium and high attainers, are challenged, including through cross curricular links. Having specific lessons means that the children are able to develop depth in their knowledge and skills over the duration of each of their Computing topics.

We have over 60 laptops in school which are timetabled for use by EYFS, KS1 and KS2. Meaningful links will be made between the Computing curriculum and the wider curriculum. Employing cross-curricular links motivates pupils and supports them to make connections and remember the steps they have been taught. We also use the 2Do feature on Purple Mash to set home learning. During and at the end of topic, teachers use differentiated statements from our curriculum documents to assess children. This is based on children's work in lessons and their saved work in their own Purple Mash files, including their work on 2Do tasks. These also provide formative assessment for future learning in addition to the informal assessment which has taken place throughout the topics to close gaps, including with regard to previous learning.

Impact:

The implementation of this curriculum ensures that, when children leave St. Monica's Catholic Primary School, they are competent and safe users of IT with an understanding of how technology works. They will have developed skills to express themselves and be equipped to apply their skills in computing to different challenges going forward, including in transition to secondary school.
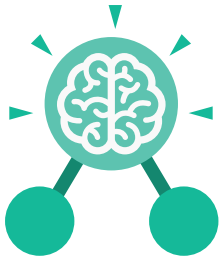
Unit: 4.1
Coding

Key Learning

- To begin to understand selection in computer programming.
- To understand how an IF statement works.
- To understand how to use co-ordinates in computer programming.
- To understand the 'repeat until' command.
- To understand how an IF/ELSE statement works.
- To understand what a variable is in programming.
- To use a number variable.
- To create a playable game.

Key Resources

purple mash
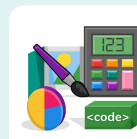
Tools   2Dos   2Chart   Free code gibbon

Key Vocabulary

Action
The way that objects change when programmed to do so. For example, move.

Alert
This is a type of output. It shows a pop up of text on the screen.

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

Background
In 2Code the background is an image in the design that does not change.

Button
A type of object that responds to being clicked on.

Code blocks
A way to write code using blocks which each have an object or an action.

Command
A single instruction in 2Code.

Debug/Debugging
Fixing code that has errors so that the code will run the way it was designed to.

Design
In coding, this is a plan for the program showing the visual look of the user interface (the screen) with the objects. The algorithm can be represented as part of the design, showing actions and events.

Execute
This is the proper word for when you run the code. We say, 'the program (or code) executes.'

2simple
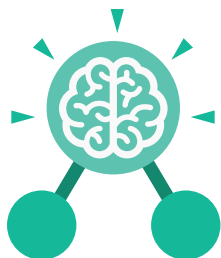
Key Vocabulary

Event
An occurrence that causes a block of code to be run. The event could be the result of user action such as the user pressing a key (when Key) or clicking or swiping the screen (when Clicked, when Swiped). In 2Code, the event commands are used to create blocks of code that are run when events happen.

Nest
When coding commands are put inside other commands. These commands only run when the outer command runs.

Implement
When a design is turned into a program using coding.

Repeat until
In 2Code this command will repeat a block of commands until a condition is met.

Flowchart
A diagram that uses specifically shaped, labelled boxes and arrows to represent an algorithm as a diagram.

'If/Else' Statement
A conditional command. This tests a statement. If the condition is true, then the commands inside the 'if block' will be run. If the condition is not met, then the commands inside the 'else block' are run.

Object
Items in a program that can be given instructions to move or change in some way (action). In 2Code Gibbon, these include character, turtle, button, vehicle, animal, food, shape, number, input and label.

Predict
Use your understanding of a situation to say what will happen in the future or will be a consequence of something.

'If' Statement
A computer uses an IF statement to decide which bit of code to run. IF a condition is true, then the commands inside the block will be run.

Input
Information going into the computer. This could be the user moving or clicking the mouse, or the user entering characters on the keyboard. On tablets there are other forms such as finger swipes, touch gestures and tilting the device.

Prompt
A question or request asked in coding to obtain information from the user in order to select which code to run.

Repeat
This command can be used to make a block of commands run a set number of times or forever.

Run
Clicking the Play button to make the computer respond to the code.

2simple
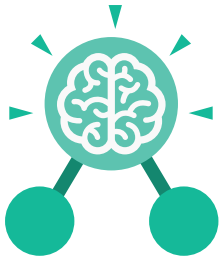
Unit: 4.1
Coding

Key Vocabulary

Properties
These determine the look and size of an object. Each object has properties such as the image, scale and position of the object.

Timer
In coding, use a timer command to run a block of commands after a timed delay or at regular intervals.

Selection
Selection is a decision command. When selection is used, a program will choose which bit of code to run depending on a condition.

Sequence
This is when a computer program runs commands in order.

Variable
A named area in computer memory. A variable has a name and a value. The program can change this variable value. Variables are used in programming to keep track of things that can change while a program is running.
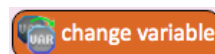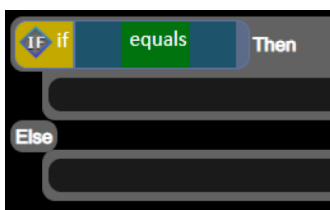
Key Images

Open design mode in 2Code.

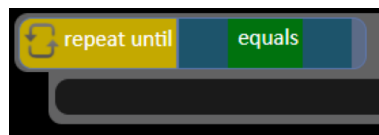Switch to code mode in 2Code.

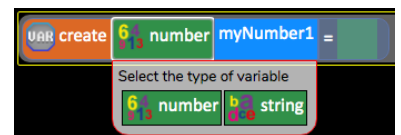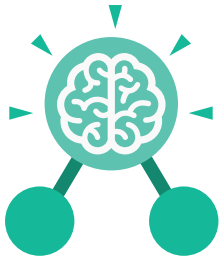A change variable block.

An 'if/Else' command.

Repeat until.

Creating a variable in 2Code.

2simple

Unit: 4.1
Coding

Key Questions

Explain the stages of the design, code, test, debug coding process.

This is a process to go through as you create a program using coding
- Design: create a design which could be a flowchart, a labelled diagram or a storyboard. This helps to think through the algorithms required
- Code: code the algorithms using to code and adapting the design.
- Test and Debug: see if the program works and fix any errors.

How can variables and if/else statements be useful when coding programs with selection?

The variable could be set either to 0 or 1 and this could be changed by user action or a timer. If/else statement outcomes could depend upon the value of the variable. command for selection.

What does selection mean in coding and how can you achieve this in 2Code?

The code will contain commands that require a decision and the next code to run will depend upon the outcome of this decision. In 2Code we used the 'if' command for selection.
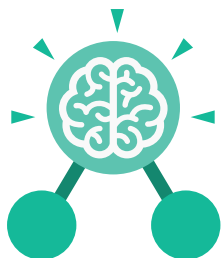
What is the difference between the different object types in 2Code Gibbon level?

The different objects have different properties. This makes then suitable for different type of programs.

- Buttons can only be clicked and have their colour and text changed.
- Vehicles have speed and angle.
- Characters have movement in 4 directions.
- Turtles have rotation, pen up and down.

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Unit: 4.2
Online Safety

Key Learning

- To understand how children can protect themselves from online identity theft.
- To understand that information put online leaves a digital footprint or trail and that this can aid identity theft.
- To identify the risks and benefits of installing software including apps.
- To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism.
- To identify appropriate behaviour when participating or contributing to collaborative online projects for learning.
- To identify the positive and negative influences of technology on health and the environment.
- To understand the importance of balancing game and screen time with other parts of their lives.

Key Questions

What is meant by a digital footprint?

A digital footprint is the information that exists about a person based upon sites that they have visited, searches that they have done, information that they have shared and other online behaviours.

What is SPAM?

SPAM messages are emails or online messages sent from a computer to many other users. The users are sent the email without requesting it. The purpose of SPAM is for advertising, phishing or malware.

What is meant by plagiarism?

Plagiarism refers to using someone else's work and claiming it to be your own.

Key Resources

purple mash

2Connect   2Investigate   SPAM

2 simple
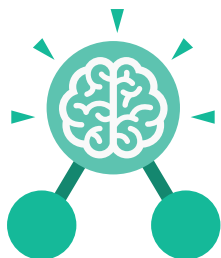
Unit: 4.2
Online Safety

Key Vocabulary

AdFly
An online advertising marketplace that allows publishers to monetize their website traffic by placing advertisements on their site.

Collaborate
To work jointly on an activity or project.

Digital footprint
The information about a person that exists on the Internet as a result of their online activity.

Plagiarism
Taking someone else's work or ideas and passing them off as one's own.

Spam
Messages sent over the Internet, typically to many users, for the purposes of advertising, phishing or spreading malware.

Attachment
A file, which could be a piece of work or a picture, that is sent with an email.

Cookies
A small amount of data generated by a website and saved by a web browser. Its purpose is to remember information about the user.

Malware
Software that is specifically designed to disrupt, damage, or gain unauthorised access to a computer system.

Ransomware
A type of malicious software designed to block access to a computer system until a sum of money is paid.

Virus
A piece of code which can copy itself and typically has a damaging effect on the device, such as corrupting the system or destroying data.

Citation
Making reference to the original source of a piece of information quotation or image.

Copyright
When the rights to something belong to a specific person.
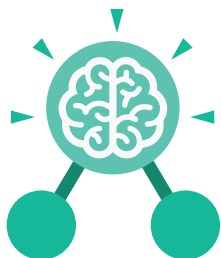
Phishing
Practice of sending email pretending to be from reputable companies in order to persuade individuals to reveal personal information, such as passwords and credit cards numbers.

SMART rules
A set of rules based around the word SMART designed to help you stay safe when online. SMART represents the words Safe, Meet, Accept, Reliable, Tell.

Watermark
Watermarks are used mainly on images or videos to show who the content belongs to.

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Unit: 4.3
Spreadsheets

Key Learning

- To format cells as currency, percentage, decimal to different decimal places or fraction.
- To use the formula wizard to calculate averages.
- To combine tools to make spreadsheet activities such as timed times tables tests.
- To use a spreadsheet to model a real-life situation.
- To add a formula to a cell to automatically make a calculation in that cell.

Key Resources

purple mash

2Calculate
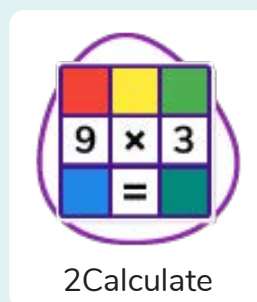
Key Vocabulary

Row
Vertical reference points for the cells in a spreadsheet.

Column
Horizontal reference points for the cells in a spreadsheet.

Spreadsheet
A computer program that represents data in **cells** in a grid of **rows** and **columns**. Any cell in the grid may contain either data or a **formula** that describes the value to be inserted based on the values in other cells.

Formula
A group of letters, numbers, or other symbols which represents a scientific or mathematical rule. The plural of formula is formulae.
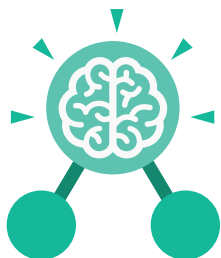
Average
A number expressing the typical value in a set of data. Also known as the mean. It is calculated by dividing the sum of the values in the set by their number.

Budget
The amount of money available to spend on a project.

Chart
A diagram that represents data. Charts include graphs and other diagrams such as pie charts or flowcharts.

Unit: 4.3
Spreadsheets

Key Vocabulary

Data
A collection of information, especially facts or numbers, obtained by observation, questions or measurement to be analysed and used to help decision-making.

Format Cell
The way that data is displayed in a cell. For example using units such as £ or $.

### Percentage
'per' 'cent' means number of parts per hundred.

Timer
When placed in the spreadsheet, clicking the timer adds 1 to the value of the cell to its right every second until it is clicked again.

Decimal place
The position of a digit to the right of a decimal point. In 2Calculate, the number of decimal places to be displayed can be chosen.

Formula Wizard
Use the formula wizard or type into the formula bar to create a formula in a cell, this will calculate the value for the cells based upon the value of other cells in the spreadsheet.

Place value
This is the value of each digit within a number. For example 354, the 3 = 3 hundreds, the 5 = 5 tens and the 3 = 3 ones.

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.

Line graph
A line graph is used to display information which can change over time. For example, temperature at different times of the day.

Random Number Tool
This tool, when clicked, will generate a random number.

Spin Tool
This tool changes a number to the right of it by one each time an arrow is pressed.
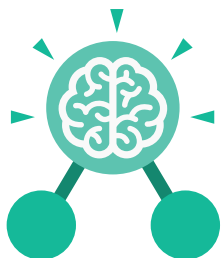
Unit: 4.3
Spreadsheets
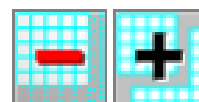
Key Images

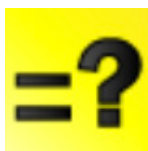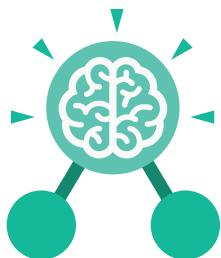|			
Open, close or share a file	Save your work	Open a previously saved file	Increase or decrease spreadsheet size
Advanced mode	Formula Wizard	Format Cell Toolbox	Charts
Totals toolbox	Image Tools	Controls Toolbox	Random Number
Spin	Equals	Timer	
To Copy	To Cut	To Paste	

Unit: 4.3
Spreadsheets

Key Questions

How would you add a formula so that the cell shows the percentage score for a test?

Click on the cell where you want the percentage score to be displayed then click the formula wizard button. Click on the cell that contains the score. Choose the ÷ operation then click on the cell that shows what the test was out of. Click OK. Click on the answer cell and then the formet cell button. Choose % as the format.

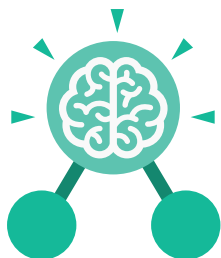### Which tools would you use to create a timed times tables test in 2Calculate?

You could use the random tool, the spin tool, the equal tool and the timer tool.

Give an example of the data that could be best represented by a line graph.

Data where both axes will contain continuous data so that you can see trends in the data. Such as ages and heights, time and temperature, years and costs.

Explain what a spreadsheet model of a real-life situation is and what it can be used for?

It represents the data of a situation for example budgeting for a party, working out how big a field needs to be for a certain number of animals, working out how to spend your pocket money over time.

Unit: 4.4
Writing for Different Audiences

Key Learning

- To explore how font size and style can affect the impact of a text.
- To use a simulated scenario to produce a news report.
- To use a simulated scenario to write for a community campaign.

Key Resources

purple mash

2Publish Plus

2Simulate

Key Images

A

Text Toolbar. Click here to format your text.

Key Vocabulary

Campaign
An organised course of action to achieve a goal.

Format
The way in which something is arranged or set out.

Font
A set of type which shows words and numbers in a particular style and size.

Genre
The style or category type of a piece of art, music or writing.

Opinion
A view or judgment someone forms about something, not always based on fact.

Reporter
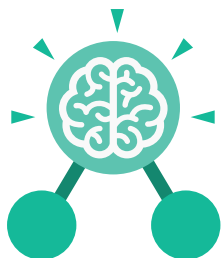A person who reports news or conducts interviews for the press or broadcasting media.

Viewpoint
The way someone sees or thinks about something.

Key Questions

Why should I change the font when I am writing?
Changing the appearance of the font can help make things easier to read and highlight important parts of the text.

2 simple

Unit: 4.5
Logo

Key Learning

- To learn the structure of the coding language of Logo.
- To input simple instructions in Logo.
- Using 2Logo to create letter shapes.
- To use the Repeat function in Logo to create shapes.
- To use and build procedures in Logo.

Key Resources

purple mash

2Logo

Key Questions

What is Logo?

Logo is a text-based coding language used to control an on-screen turtle to create mathematical patterns.

Key Vocabulary

Debugging
The process of identifying and removing errors from computer hardware or software.

LOGO Commands (e.g FD, BK, RT, LT)
A list of commands inputted into 2Logo to move the turtle around the screen.

Pen Up
Raises the screen pen so the 2Logo turtle doesn't draw on screen.

Grid
The template around which the 2Logo turtle moves.

Multi Line Mode
Type several lines of commands in the text area.

Prediction
When you say what is going to happen when you run the instructions.

LOGO
A text-based coding language used to control an on screen turtle to create mathematical patterns.

Pen Down
Lowers the screen pen so the 2Logo turtle draws a line on the screen.

Procedure
Pieces of Logo text with a procedure name that can be run by calling them by name. Saves time if you want to print to screen lots of the same shape.

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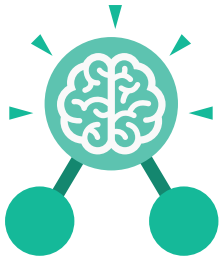
Unit: 4.5
Logo

Key Vocabulary

Repeat
A set of instructions that is run a specified number of times.

Run Speed
The speed at which the 2Logo turtle moves around the screen.

SETPC
Set pen colour to a given colour.

SETPS
Set the thickness of the pen's line.

Key Images

Open, close and share work

Choose the turtle style

Choose a background

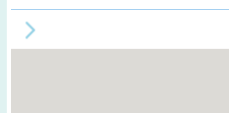Switch the grid on and off

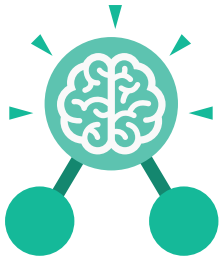Press and the logo mouse follows the instructions

Reset the mouse to the start position

Change the speed at which the mouse moves

Write the Logo instructions here

2simple

Unit: 4.6
Animation

Key Learning

- To discuss what makes a good animated film or cartoon.
- To learn how animations are created by hand.
- To find out how animation can be created in a similar way using the computer.
- To learn about onion skinning in animation.
- To add backgrounds and sounds to animations.
- To be introduced to 'stop motion' animation.
- To share animation on the class display board and by blogging.

Key Resources

purple mash
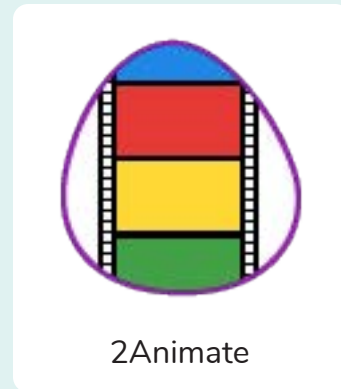
2Animate

Key Vocabulary

Animation
The process of adding movement to still objects.

FPS (Frames Per Second)
The number of frames played per second.

Frame
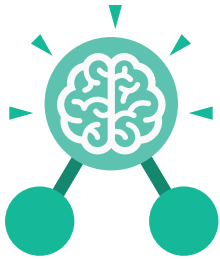A single image in an animation.

Onion Skinning
A process where the shadow image of the previous frame is present to help you line up the objects of the animation correctly.

Pause
To temporarily stop the animation.

Stop motion
A technique whereby the camera is repeatedly stopped and started, for example to give animated figures the impression of movement.

2 simple

Unit: 4.6
Animation

Key Images

Open, close or share animation.

Add or delete a frame from the animation.

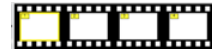**Play the animation.**

Switch onion skinning on or off.

Add a background picture to the animation.

Insert a photograph from a webcam into the animation.

Insert a sound file into the animation.

Number of frames in the animation.

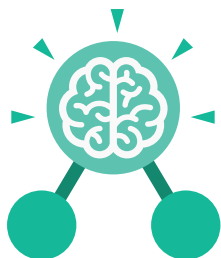## Key Questions

What is an animation?

Animation is the process of giving the illusion of movement to drawings, models, or inanimate objects. Animated motion pictures and television shows are highly popular forms of entertainment.

What is meant by onion skinning?

Onion skinning is a 2D computer graphics term for a technique used in creating animated cartoons and editing movies to see several frames at once.

What is meant by stop motion animation?

Stop motion animation is a filming technique in which objects (such as clay models) are photographed in a series of slightly different positions so that the objects seem to move.

2simple

Unit: 4.7
Effective Searching

Key Learning

- To locate information on the search results page.
- To use search effectively to find out information.
- To assess whether an information source is true and reliable.

Key Resources

purple mash

2Publish Plus

Key Questions

What is a search engine?

A search engine is a piece of software that allows the user to find and display pages from the World Wide Web.

Key Vocabulary

Balanced View
Presenting opposing points of view fairly and without bias.

Easter eggs
An unexpected or undocumented feature in a piece of computer software or on a DVD, included as a joke or a bonus.

Internet
A global computer network providing a variety of information and communication facilities.

Key words
A word or a group of words an Internet user uses to perform a search in a search engine.
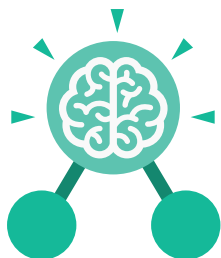
Reliability
The degree to which the result of something can be depended on to be accurate.

Results page
Where the answers to a search are displayed.

Search engine
A program that searches for and identifies items in a database. Used especially for finding sites on the World Wide Web.

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Unit: 4.8
Hardware Investigators

Key Vocabulary

Components
Parts inside the computer casing.

CPU
The 'brains' of the computer, where all the calculations take place.

Graphics Card
Also known as a video card and used for displaying images.

Hard Drive
Where the computer stores all your documents, pictures, games and videos.

Input
How information enters the computer.

Motherboard
Main printed circuit board of the computer.

Network Card
Used to connect the computer to a network such as the Internet.

Output
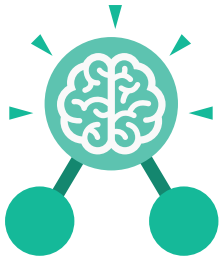Where information leaves the system.

Peripherals
Parts that are attached to the computer case.

RAM
Allows programs to store information to help the computer run quickly.

Software
The programs that run on the computer.

Key Learning

- To understand the different parts that make up a computer.
- To recall the different parts that make up a computer.

Key Resources

purple mash

2Connect

2Quiz

Key Questions

What is the difference between hardware and software?

Hardware refers to the physical parts of a computer or device. The parts inside the computer casing are often called the components. The parts that are attached to the computer case are called peripherals. Software describes the programs that run on the computer.

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Unit: 4.8
Hardware Investigators

Key Images

Motherboard

CPU

RAM

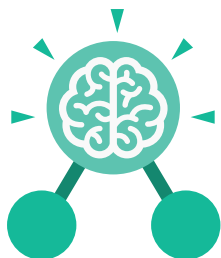Graphics card

Network card

Monitor

Speakers

Keyboard

Mouse

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Unit: 4.9
Making Music

Key Learning

- To identify and discuss the main elements of music.
- To understand and experiment with rhythm and tempo.
- To create a melodic phrase.
- To electronically compose a piece of music.

Key Questions

What is the difference between melody and rhythm?

A rhythm is a pattern of sounds based on the length of the notes and the silences. A melody is a pattern of notes based on the pitch and rhythm, which make up a memorable tune.

Key Resources

purple mash

Busy Beats

Key Vocabulary

BPM
Beats per Minute. Changing the BPM changes the speed of the music.

Melody
A sequence of notes which make up a tune.

Rhythm
A pattern of long and short sounds and silences.

Dynamics
How loud or quiet a sound is.

Pitch
How high or low a sound is.

Tempo
How slow or fast a piece of music is.

Synths
Short for synthesizer. Electronic musical instrument sounds.

Harmonious
Notes which sound tuneful and pleasant together.

Pulse
The steady beat of a piece of music.

Texture
The different sounds you can hear in a piece of music.

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Unit: 4.9
Making Music

Key Images

Open, save and share work.

Play and add different notes or synths.

Play and add different sample sounds.

Clicking on the rippler triggers the sounds.

Stop the music by pressing this button.

This changes the speed – beats per minute.

Record, stop recording and replay your work.

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Year 4 Unit Overview

Unit 4.1 – Coding

Lesson	Title	Aims (Objectives)	Success Criteria
1	Design, Code, Test and Debug	• To review coding vocabulary and knowledge. • To create a simple computer program.	• Children can explore different object types in 2Code. • Children can use a background and objects to create a scene. • Children can plan an algorithm for their scene and use 2Code to program it.
2	IF Statements	• To begin to understand selection in computer programming. • To understand how an IF statement works.	• Children can create a program that includes an IF statement. • Children can interpret a flowchart that depicts an IF statement.
3	Co-ordinates	• To understand how to use co-ordinates in computer programming. • To understand how an IF statement works.	• Children can make use of the X and Y properties of objects in their coding. • Children can create a program that includes an IF statement.
4	Repeat Until and IF/ELSE Statements	• To understand the Repeat until command. • To begin to understand selection in computer programming. • To understand how an IF/ELSE statement works.	• Children can read code that includes repeat until and IF/ ELSE and explain how it works. • Children can create a program that includes an IF/ ELSE statement. • Children can interpret a flowchart that depicts an IF/ ELSE statement.
5	Number Variables	• To understand what a variable is in programming. • To use a number variable.	• Children can explain what a variable is in programming. • Children can create and use variables when programming.
6	Making a Playable Game	• To review vocabulary and concepts learnt in Year 4 Coding. • To create a playable game.	• Children can read code that includes repeat until and IF/ ELSE and explain how it works. • Children can create a program that includes and IF/ ELSE statement. • Children can interpret a flowchart that depicts an IF/ ELSE statement.

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Unit 4.2 – Online Safety

Lesson	Title	Aims (Objectives)	Success Criteria
1	Going Phishing	• To understand how children can protect themselves from online identity theft. • To understand that information put online leaves a digital footprint or trail and that this can aid identity theft.	• Children know that security symbols such as a padlock protect their identity online. • Children know the meaning of the term 'phishing' and are aware of the existence of scam websites. • Children can explain what a digital footprint is and how it relates to identity theft. • Children can give examples of things that they would not want to be in their digital footprint.
2	Beware Malware	• To identify the risks and benefits of installing software including apps.	• Children can identify possible risks of installing free and paid for software. • Children know that malware is software that is specifically designed to disrupt, damage, or gain access to a computer. • Children know what a computer virus is.
3	Plagiarism	• To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism. • To identify appropriate behaviour when participating or contributing to collaborative online projects for learning.	• Children can determine whether activities that they undertake online, infringe another's' copyright. They know the difference between researching and using information and copying it • Children know about citing sources that they have used.
4	Healthy Screen-Time	• To identify the positive and negative influences of technology on health and the environment. • To understand the importance of balancing game and screen time with other parts of their lives.	• Children can take more informed ownership of the way that they choose to use their free time. They recognise a need to find a balance between being active and digital activities. • Children can give reasons for limiting screen time.

Unit 4.3 – Spreadsheets

Lesson	Title	Aims (Objectives)	Success Criteria
1	Formula Wizard and Formatting Cells	• To explore how the numbers entered into cells can be set to either currency or decimal. • To explore the use of the display of decimal places. • To find out how to add formulae to a cell.	• Children can use the number formatting tools within 2Calculate to appropriately format numbers. • Children can add a formula to a cell to automatically make a calculation in that cell.
2	Using the Timer and Spin Buttons	• To explore how tools can be combined to use 2Calculate to make number games. • To explore the use of the timer, random number and spin button tools.	• Children can use the timer, random number and spin button tools. • Children can combine tools to make fun ways to explore number.
3	Line Graphs	• To use the line graphing tool in 2Calculate with appropriate data. • To interpret a line graph to estimate values between data readings.	• Children can use a series of data in a spreadsheet to create a line graph. • Children can use a line graph to find out when the temperature in the playground will reach 20°C.
4	Using a Spreadsheet for Budgeting	• To use the currency formatting tool in 2Calculate. • To use 2Calculate to create a model of a real-life situation.	• Children can make practical use of a spreadsheet to help them plan actions. • Children can use the currency formatting in 2Calculate.
5	Exploring Place Value with a Spreadsheet	• To use the functions of allocating value to images in 2Calculate to make a resource to teach place value.	• Children can allocate values to images and use these to explore place value. • Children can use a spreadsheet made in 2Calculate to check their understanding of a mathematical concept.

Unit 4.4 – Writing for Different Audiences

Lesson	Title	Aims (Objectives)	Success Criteria
1	Font Styles	• To explore how font size and style can affect the impact of a text.	• Children can look at and discuss a variety of written material where the font size and type are tailored to the purpose of the text. • Children can use text formatting to make a piece of writing fit for its audience and purpose.
2 & 3	Using a Simulated Scenario to Produce a	• To use a simulated scenario to produce a news report.	• Children can role-play the job of a journalist in a newsroom.

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	News Report		• Children can interpret a variety of incoming communications and use these to build up the details of a story. • Children can use the incoming information to write their own newspaper report.
4 & 5	Writing for a Campaign	• To use a simulated scenario to write for a community campaign.	• Children can use 2Connect to mind-map ideas for a community campaign. • Children can use these ideas to write a persuasive letter or poster as part of the campaign. • Children can assess their texts using criteria to judge their suitability for the intended audience.

Unit 4.5 – Logo

Lesson	Title	Aims (Objectives)	Success Criteria
1	Introduction to 2Logo	• To learn the structure of the language of 2Logo. • To input simple instructions in 2Logo	• Children know what the common instructions are in 2Logo and how to type them. • Children can follow simple 2Logo instructions to create shapes on paper. • Children can follow simple instructions to create shapes in 2Logo.
2	Creating Letters using 2Logo	• To use 2Logo to create letter shapes.	• Children can create 2Logo instructions to draw patterns of increasing complexity. • Children understand the pu and pd commands. • Children can write 2Logo instructions for a word of four letters.
3	Using the 'Repeat' Command in 2Logo	• To use the Repeat command in 2Logo to create shapes.	• Children can follow 2Logo code to predict the outcome. • Children can create shapes using the Repeat command. • Children can find the most efficient way to draw shapes.
4	Using Procedures	• To use and build procedures in 2Logo.	• Children can use the Procedure feature. • Children can create 'flowers' or 'crystals' using 2Logo.

Unit 4.6 – Animation

Lesson	Title	Aims (Objectives)	Success Criteria
1	Animating an Object	• To decide what makes a good, animated film or cartoon and discuss favourite animations. • To learn how animations are created by hand. • To find out how 2Animate animations can be created in a similar way using technology.	• Children have put together a simple animation using paper to create a flick book. • Children understand animation frames. • Children have made a simple animation using 2Animate.
2	2Animate Tools	• To learn about onion skinning in animation. • To add backgrounds and sounds to animations.	• Children know what the Onion Skin tool does in animation. • Children can use the Onion Skin tool to create an animated image. • Children can use backgrounds and sounds to make more complex and imaginative animations.
3	Stop Motion Animation	• Introducing 'stop motion' animation. • To share animation the class blog.	• Children know what 'stop motion' animation is and how it is created. • Children have used ideas from existing 'stop motion' films to recreate their own animation. • Children have shared their animations and commented on each other's work using display boards and blogs in Purple Mash.

Unit 4.7 – Effective Searching

Lesson	Title	Aims (Objectives)	Success Criteria
1	Using a Search Engine	• To locate information on the search results page.	• Children can structure search queries to locate specific information.
2	Use Search Effectively to Answer Questions	• To use search effectively to find out information.	• Children have used search to answer a series of questions. • Children have written search questions for a friend to solve.
3	Reliable Information Sources	• To assess whether an information source is true and reliable.	• Children can analyse the contents of a web page for clues about the credibility of the information.

Unit 4.8 – Hardware Investigators

Lesson	Title	Aims (Objectives)	Success Criteria
1	Hardware	• To understand the different parts that make up a desktop computer.	• Children can name the different parts of a desktop computer. • Children know what the function of the different parts of a computer is.
2	Parts of a Computer	• To recall the different parts that make up a computer.	• Children have created a leaflet to show the function of computer parts.

Unit 4.9 – Making Music

Lesson	Title	Aims (Objectives)	Success Criteria
1	Understanding Music	• To identify and discuss the main elements of music: Pulse, Rhythm, Tempo, Pitch, Texture	• Children can use appropriate musical language to discuss a piece of music. • Children can identify sounds in a piece of music. • Children can explain how a piece of music makes them feel.
2	Rhythm and Tempo.	• To understand and experiment with rhythm and tempo.	• Children can identify and recall a simple rhythm. • Children can explain what tempo is, and how changing it can change the mood of a piece of music. • Children can create their own simple rhythm using Busy Beats.
3	Melody and Pitch	• To create a melodic phrase.	• Children can show an understanding of melody. • Children can create a simple melodic pattern using 2Sequence and Busy Beats. • Children can use a variety of notes, experimenting with pitch.
4	Creating Music	• To compose a piece of electronic music.	• Children can explore and understand how music is created. • Children can experiment with pitch, rhythm, and melody to create a piece of house music on Busy Beats.

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