

Our Computing Curriculum

Intent of the Computing Curriculum

All pupils at Netherhall St James Nursery and Infant School have the right to rich, deep learning experiences that balance all aspects of computing. With technology playing such a significant role in society today, our high-quality CLICK Curriculum for Computing aims to provide opportunities to prepare our children effectively and safely for this digital world.

We provide our children with a wide range of technology such as: computers, iPads, programmable toys, cameras and interactive whiteboards allowing them to continually practice and improve the skills they learn.

We focus on 3 areas in computing- **computer science**, **information technology** and **digital literacy**.

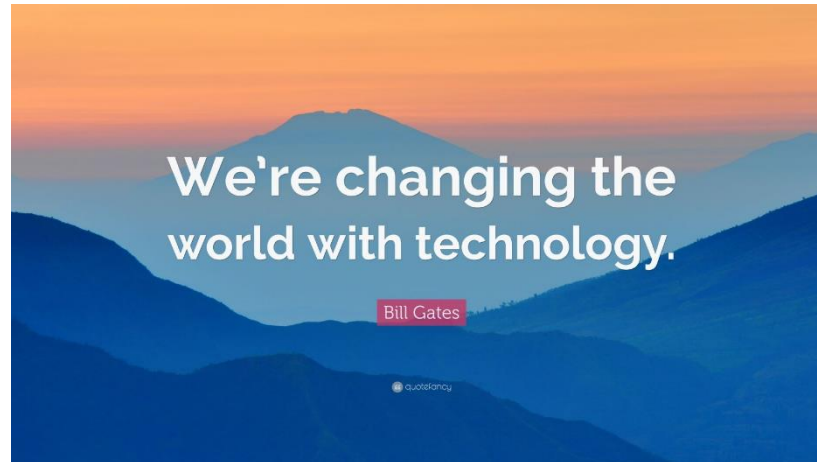
The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content.

E-Safety/ digital literacy

Netherhall St James Nursery and Infant School takes internet safety extremely seriously. We have an E-Safety Policy that provides guidance for teachers and children about how to use the internet safely. Every year group participates in lessons on e-safety and children understand how to stay safe when using technology.

Implementation of the Computing Curriculum

As of September 2023, in line with the Computing Action Plan, Year 2 are to use the Purple Mash scheme of Work to deliver explicit Computing and Digital Literacy curriculum. The units have been reordered to fit in with the current topics across Year 2 but can be changed if deemed necessary. EYFS and Nursery can make use of the Purple Mash resources in their curriculum, however, they will not be using a specific scheme of work.





Subject: Computing Nursery

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	Nursery Rhymes	Brilliant Birds	Pets	Splash	Transport	Mini beast Madness
Focus/Content		Dressing Lecky in appropriate clothes for the weather game on the IWB	Using a camera to take a picture of their favourite animal.	Using Beabots to find the hidden treasure on the squared board.	Colouring a bear outline on Purple Mash, focus on mouse control. Using remote control cars.	Using I-pads to draw mini beasts. Programming code-a-pillars.
NB: Due to a change in the EYFS curriculum Computing no longer comes under the EYFS development matters objectives. However, Computing skills are still taught using meaningful topic links as well as part of numeracy and literacy session throughout the year and opportunities to develop these skills are provided in the provision with free access to iPad and other ICT software.						
Skills	I can identify simple technology within my home and classroom. I can press buttons to turn technology on and off.	I can identify simple technology within my home and classroom. I can press buttons to turn technology on and off. I can select and move the cursor on an <u>ipad</u> or smartboard.	I can press a button on a camera/ <u>ipad</u> to take a picture. I can select and move the cursor on an <u>ipad</u> or smartboard.	I can use a programmable toy.	I can select and move the cursor on an <u>ipad</u> or smartboard.	I can select and move the cursor on an <u>ipad</u> or smartboard to draw a picture.
Knowledge	I know the names of technological devices in my home and classroom.	I know when I move my finger whilst touching the screen that it will move the cursor.	I know how to use the Camera on the iPad to take pictures	I know how to make the robot go forwards or backwards.	I know which buttons control the remote control car I know how to make simple selections on purple mash	I know how to code the caterpillar to move forwards and backwards I know how to make simple selections on purple mash
Vocabulary <i>*Ambitious vocabulary</i> <i>*previous vocabulary</i>	Toy Button Switch on/off iPad Smartboard Camera Click Sound Press Computer, Keyboard Mouse					



Subject: Computing Reception

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	Friendship – Can we be friends?	Who helps us?	What's it like far away?	Can we save the world?	What did grandma used to read?	What's it like down on the farm?
Focus/Content	Google earth – to look at our homes	Topic themed Beetle activity/Purple mash	Pre-coding penguins Ipad – Animal art Shapes – build a penguin (CBC kids)		Topic themed Beetle activity/Purple mash	Topic themed Beetle activity/Purple mash
<p>NB: Due to a change in the EYFS curriculum Computing no longer comes under the EYFS development matters objectives. However, Computing skills are still taught using meaningful topic links as well as part of numeracy and literacy session throughout the year and opportunities to develop these skills are provided in the provision with free access to iPad and other ICT software.</p>						
Skills	<p>I can identify simple technology within my home and classroom. I can press buttons to turn technology on and off. I can select and move the cursor on an ipad or smartboard. I can press a button on a camera/ipad to take a picture. I can use a programmable toy. I can complete a simple game on the ipad/computer I can use a mouse to make a simple selection I can turn the computer on/off</p>					
Knowledge	<p>I know the names of technological devices in my home and classroom. I know when I move my finger whilst touching the screen that it will move the cursor. I know how to use the Camera on the iPad to take pictures I know which buttons control the remote control car I know the names of the different parts of a computer I know how to program a bee-bot to travel to a simple destination</p>					
Vocabulary	<p>Toy Button Switch on/off iPad Smartboard Camera Click Sound Press Computer, Keyboard Mouse</p>					
*Ambitious vocabulary						
*previous vocabulary						

Year 1

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	Getting to know me and my world.	A Toy's Story	Our Animal Adventures	To infinity and Beyond	Bright lights, Big city.	Ready, Steady, Grow
UNIT Focus/ Content	<p>PURPLE MASH UNIT Unit 1:1 Online safety and exploring Purple Mash (4 lessons)</p> <p><i>Dominant strand for this unit:</i> Digital Literacy 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</p>	<p>PURPLE MASH UNIT Unit 1:2 Grouping and Sorting (2 lessons) Unit 1:3 Pictograms and Data (3 lessons)</p> <p><i>Dominant strand for this unit(1.2):</i> Computer Science Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p><i>Dominant strand for this unit(1.3):</i> Information Technology Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p>	<p>PURPLE MASH UNIT Unit 1:4 Lego Builders (3 lessons)</p> <p>INTERNET SAFETY Internet Safety Day Tuesday 11th February 2025</p> <p><i>Dominant strand for this unit (1.4) :</i> Computer Science Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</p> <p>Internet Safety - Digital Literacy (see skills and knowledge from Unit 1.1)</p>	<p>PURPLE MASH UNIT Unit 1:6 Animated Story Book (5 lessons) Unit 1:8 Spreadsheets (3 lessons)</p> <p><i>Dominant strand for this unit(1.6):</i> Information Technology Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p><i>Dominant strand for this unit(1.8):</i> Information Technology Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>PURPLE MASH UNIT Unit 1:5 Maze Explorers (3 lessons)</p> <p><i>Dominant strand for this unit:</i> Computer Science</p> <ul style="list-style-type: none"> 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 	<p>PURPLE MASH UNIT Unit 1:7 Coding (6 lessons)</p> <p><i>Dominant strand for this unit:</i> Computer Science</p> <ul style="list-style-type: none"> 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
Skills (Procedural)	<p><i>By the end of this unit (1.1) children will be able to:</i></p> <ul style="list-style-type: none"> Access Purple Mash from home and school. Give reasons why it is important to keep a password safe and not share it with other people. Explain why passwords display as ***** on the screen. Access their work area on Purple Mash and the school drive. Sort their work using a folder system. Save work in their folder. Make and edit their own avatar. Consider why an avatar is better than a photo for an online account. 	<p><i>By the end of this unit (1.2) children will be able to:</i></p> <ul style="list-style-type: none"> Describe physical items that are needing to be sorted thinking about all the different ways they could be described. Identify criteria that can be used to sort items into two groups. Explain how items have been sorted. Check that items sorted into two categories are correct using the criteria decided upon. Look at an algorithm a human has followed to sort shapes and compare it to the algorithm a computer program has used to identify if the shapes are correctly sorted. Follow 	<p><i>By the end of this unit (1.4) children will be able to:</i></p> <ul style="list-style-type: none"> Recognise whether instructions have been followed correctly when comparing two Lego models. Give clear, precise and concise building instructions for someone to follow. Recognise how important it is to have clear, precise and concise instructions and the implications of this. Test that instructions have been followed by comparing the results of something built with the instructions. Open a painting activity on Purple Mash. 	<p><i>By the end of this unit (1.6) children will be able to:</i></p> <ul style="list-style-type: none"> Identify differences and similarities between traditional books and e-books and explain the advantages of both formats. Identify 2Create a Story as an e-book creator tool. Open 2Create a Story and explain what the common tools such as eraser, undo/redo do and the textured pens. Use the textured pens to create a drawing. Use the eraser, undo/redo buttons when creating the image if a mistake is made. Save the 2Create a Story file. Open previously saved work from within 2Create a Story. 	<p><i>By the end of this unit (1.5) children will be able to:</i></p> <ul style="list-style-type: none"> Open 2Go and be familiar with its environment. Use the direction keys to make a character (turtle) on the screen move in different directions. Experiment with moving the character using alternative routes to get it to a desired location Make use of diagonal key commands when moving a character to help move the character to a desired location with the least number of commands. Combine diagonal commands with 	<p><i>By the end of this unit (1.7) children will be able to:</i></p> <ul style="list-style-type: none"> Give clear instructions that others can follow. Receive instructions that others can follow. Draw symbols to represent instructions. Can recognise an object in printed code block form. Can recognise an action in printed code block form. Can arrange a printed object block next to a printed action block e.g. 'Tuna left'. Can recognise the set of code blocks arranged to create actions is known as an algorithm. Recognise object code blocks in 2Code. Recognise action code blocks in 2Code.

	<ul style="list-style-type: none"> • Locate work they have done previously in their work folder. • Listen and read teacher comments. • Open the file by double clicking on it. • Use a mouse and keyboard competently to access the learning. 	<ul style="list-style-type: none"> • a human algorithm to sorting shapes. • Follow a computer program algorithm checking shapes have been sorted correctly. • Open a sorting activity within Purple Mash. Become familiar with the layout of computer sorting activities recognising items that need sorting and the areas they can be moved to. Identify what each criterion container is. • Drag objects into the correct criterion container. • Recognise some objects may fit into an overlap criterion. <p>By the end of this unit (1.3) children will be able to:</p> <ul style="list-style-type: none"> • Collect data on a common theme such as how children travel to school. • When collecting data, recognise that there are efficient ways of collecting data such as writing it down or entering it into a computer program. • Represent data collected as a class using physically created pictograms. • Interpret a pictogram by comparing amounts of different categories. • Interrogate a pictogram by thinking of questions that they would like answers to. • Look at a pictogram and compare each category. • Identify the totals in each category. • Increase or decrease amounts of items from a column by using the plus or minus buttons • Change an image representing a piece of data. 	<ul style="list-style-type: none"> • Follow the simple instruction of painting given animals and compare the finished results with others. • Follow a set list of instructions that everyone uses to paint a bird, recognising that the instructions have resulted in everyone's finished pieces are very similar • Identify why a sequence of instructions for making a sandwich is incorrect. • Explore the possible outcomes of following incorrectly sequenced instructions. • Find simple errors in a simple algorithm for making a sandwich. • Correct the algorithm sequence by re-ordering it. • Recognise when an algorithm has been debugged. • Apply learning about debugging an algorithm to other incorrectly sequenced instructions such as baking cakes. 	<ul style="list-style-type: none"> • Identify the animation tool. • Test each animation effect within the animation tool for a selected image. • Apply an animation effect. • Use the play button to see the effect of the animation within the e-book. • Overwrite any work that was done previously if needed such as changing an image. • Add additional pages using the add page button. • Scroll between pages using the back and forward arrows. • Save any new changes. • Open previously saved work from within 2Create a Story. • Locate the sound button. • Record sound using the microphone and apply to a page. • Insert a sound effect from the gallery and apply to a page. • Insert a piece of music created from the piano synthesizer and apply to a page. • Test the effects of adding sound by clicking the play button. • Open previously saved work from within 2Create a Story. • Locate the clip art gallery icon. • Select a background for a page from the gallery. • Create a background for a page using the pen tools. • Locate the camera icon and use this to apply an image taken from a camera as a background to a page. • Select previously written text from a file. • Locate text button. • Experiment with changing the font type, colour and size. • Apply any text changes to a page that contains text • Open previous work within 2Create a Story. • Locate the copy button. • Select copy to perform a copy of a page. 	<p>standard four direction commands and number keys to efficiently move a character to a desired location.</p> <ul style="list-style-type: none"> • In 2Go use the direction keys combined with number keys to get an object to a specific place on a screen. • Reference an onscreen grid with number keys when creating commands • Identify where a character needs to go. • Formulate a list of instructions to move the character from the start to end point. • Drag instructions into the algorithm box. • Run the instructions and test they achieve the correct result. • Debug by modifying the instructions so that the character moves to the correct location. • Make use of the undo button to help with changes to commands. • Use the extend algorithm button when more than five commands are needed. 	<ul style="list-style-type: none"> • Make a command in 2Code by using an object and action together. • See what happens when a command they have made is executed. • Recognise When Clicked code block as an event block. • Arrange a When Clicked code block in front of an object. • Give an object code block an action when it is clicked. • Run code with a When Clicked event and observe what happens when the event occurs. • Execute code by clicking the Run button. • Stop code executing by clicking the Stop button. • See the colour change on blocks of code being executed • Analyse where their code isn't working properly. • Arrange blocks into different places. • Change actions attributed to objects. • Can execute code and test if changes have debugged a simple program. • Switch to design view. • Select a background using the background icon. • Click on an object and change the size of it by changing the value of the scale. • Move an object where wanted within design view by clicking and dragging it. • Delete an object by clicking on it and then on the bin • Draw a plan of a scene with objects. • Plan what the objects in the scene will do. • Create a program from a plan that includes objects, actions and a When Clicked event. • Execute the program and test if it is doing what is intended in the plan. • Debug the program if the program isn't working how it was planned.
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		<ul style="list-style-type: none"> Create a suitable title for a pictogram and save. 		<ul style="list-style-type: none"> Use the next page button to locate where the copied page should be pasted. Locate the paste button. Click on the paste button to insert the copied page. Modify the copied page. <p><i>By the end of this unit (1.8) children will be able to:</i></p> <ul style="list-style-type: none"> Talk about the function of a spreadsheet and give examples. Open a blank sheet from the front screen of 2Calculate. Enter numbers and words into a sheet. Navigate from cell to cell using the arrows or by clicking in the cell. Add background colour to cells. Navigate around the sheet and are aware of what is meant by rows and columns. Save sheets. Select a cell where an image will be inserted Locate the clipart library and add an appropriate image to a single cell. Select multiple cells to add repeated versions of the same image. Use the Move tool to move an image from one cell to another. Lock an image to a cell so it can't be moved. Give an image a specific value. Use the count tool to count how many of the images are in the sheet. Use the Speak tool in their sheet. 		
<p>Knowledge (Declarative)</p>	<p><i>This Unit will teach the children that:</i></p> <ul style="list-style-type: none"> It is important to log in to a site safely and the importance of keeping passwords safe. Many online sites, including Purple Mash, have an area for their work that is accessible only to the user. 	<p><i>This Unit (1.2) will teach the children that:</i></p> <ul style="list-style-type: none"> Items can be sorted using a range of criteria. When sorting items, a logical process should be used. An algorithm is a precise, step-by-step set of instructions used to solve a problem or 	<p><i>This Unit (1.4) will teach the children that:</i></p> <ul style="list-style-type: none"> To achieve a specific effect when building something, accurate instructions must be followed. Computer programs need precise instructions to follow and these are called algorithms. If 	<p><i>This Unit (16) will teach the children that:</i></p> <ul style="list-style-type: none"> There are differences between traditional books and ebooks. Images can be created within e-book software Animations can be included in e-books. 	<p><i>This Unit (15) will teach the children that:</i></p> <ul style="list-style-type: none"> You can move a character (turtle) within specific computer programs around a computer screen such as 2Go by using direction keys. When a direction key is used it is known as a command. 	<p><i>This Unit (17) will teach the children that:</i></p> <ul style="list-style-type: none"> Tasks can be given to people and computers by using instructions. Computer programs work by following instructions called code known as algorithms. In both cases, these need to be clear and concise.

	<ul style="list-style-type: none"> An avatar is a virtual representation of them suitable for use online. Work can be loaded and saved in an online area in platforms children have access to, including Purple Mash, can be accessed by teachers. Online platforms, such as Purple Mash, have search functionality which allows users to efficiently find resources and tools. Different icons in a tools bar carry out different functions Many of the tools in sites such as Purple Mash will have a common design theme, and which means familiarity of the functionality of icons across different applications. It is important to log out when they have finished working as a way of securing personal accounts. 	<p>achieve an objective. Computer programs need clear instructions, in steps, to follow. The instructions written for a computer program are called algorithms. Humans can follow algorithms to sort items such as shapes, just as computer programs can.</p> <ul style="list-style-type: none"> Computers can be used as a way of sorting on screen objects. <p><i>This Unit (1.3) will teach the children that:</i></p> <ul style="list-style-type: none"> Data is a collection of information, used to help answer questions. A pictogram is a visual way of representing data. We can look at data represented in pictograms and ask questions as a way of interrogating data. Programs such as 2Count enable people to create pictograms on a computer. This has the advantage of being able to easily modify data and share it with lots of people. 	<p>instructions are vague, outcomes will vary for any given task.</p> <ul style="list-style-type: none"> The order of instructions for a task affects the results. Correcting errors in an algorithm or program is called debugging. 	<ul style="list-style-type: none"> E-book software allows pages to be added and overwriting of work. Audio such as sound effects, voice recordings and music can be included within e-books. Backgrounds can be included in e-books to help engage an audience. Text fonts and sizes can be changed in e-books to suit an intended audience Copy and paste features in e-book software can be used to speed up creation of additional pages. <p><i>This Unit (18) will teach the children that:</i></p> <ul style="list-style-type: none"> There are specific features and purposes of a spreadsheet, and they can navigate around and enter data. Specific features in spreadsheets such as 2Calculate allow user to insert content such as images into a cell. The cells content can be locked or moved using additional features. The Speak and Count tools serve a specific purpose in 2Calculate. 	<ul style="list-style-type: none"> On screen direction keys can have eight possible directions which includes diagonal movements Number keys can be combined with direction keys to give a program more accurate instructions and avoid less command clicks. Each square on a grid relates to 1 unit and that when using number keys this should be referenced Lists can be made with directional instructions within 2Go and these are known as algorithms. These lists can be changed to improve the instructions which is known as debugging. 	<ul style="list-style-type: none"> There are objects and action code block in the 2Code environment and that you can make a simple program using these. Each single instruction such as 'Object Right' is called a command. An event is something that makes a block of code run such as a user pressing a key or clicking a screen. Event, object and action code blocks can be used together. When code is run this is known as code being executed. Debugging is when we fix code that isn't working how it was designed to. Scenes can be made using backgrounds and objects. Backgrounds can be changed as well as objects and that these have attributes (properties) that can be modified. A well thought out program should be made from a plan.
<p>Vocabulary</p> <p><i>*Ambitious vocabulary</i></p> <p><i>*previous vocabulary</i></p>	<p>Unit 1:1 Online safety and exploring Purple Mash</p> <p>keyboard, monitor, mouse, internet, cursor, login, username, password, avatar, logout, save, notification, topics, My Work, tools,</p>	<p>Unit 1:2 Grouping and Sorting Sort, criteria, Unit 1:3 Pictograms and Data Pictogram, data, collate</p>	<p>Unit 1:4 Lego Builders instruction, algorithm, computer, program, debug,</p>	<p>Unit 1:6 Animated Story Book animation, e-book, font, file, sound effects, display board, search engine applications, Arrow keys, backspace</p> <p>Unit 1:8 Spreadsheets</p> <p>key, cursor, columns, cells, clipart, count tool. Delete key, image toolbox, lock tool. Move cell tool, rows, speak tool, spreadsheet</p>	<p>Unit 1:7 Coding action, code, event, algorithm, background, command, debug / debugging, execute input, instructions, object, output, properties, run, scale, scene, sound, when clicked, Purple Mash paint – stamp Beebot – directions Google Maps – directions / algorithm</p>	<p>Unit 1:5 Maze Explorers Beebot, Direction, rewind, challenge, forward, backwards, right turn, undo, arrow, left turn, debug, instruction, algorithm,</p>

Year 2

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	Wonders of the World If you had a magic carpet where would you go?	African Adventure What is it like to live in Africa?	Ahoy there! What is it like to be a pirate	London's Burning! What was it like in London in 1666?	Glorious gardens! Where and how do plants grow?	Transport Travelling, trains and the Titanic!
Focus/ Content	<p>Computer Science Unit 2:1 Coding Suggested cross – curricular computing activities Beebots on a world map – give instructions to find continents. Use bee bots to give instructions and de – bug.</p> <p>Digital Literacy Logging on using a password. Reminding why we have a password and what its purpose is</p> <p><i>Reminder of ways to keep safe when using technology and what to do during certain situations.</i></p> <p><i>(May discuss current e-safety issues which are relevant to children and age appropriate)</i></p>	<p>Information Technology Unit 2:6 Creating Pictures Suggested cross – curricular computing activities Use Purple Mash to create a repeating poppy print wallpaper using stamp tool.</p> <p>Purple mash- fact file of Great Fire of London. Save and retrieve.</p> <p>Digital Literacy <i>Reminder of ways to keep safe when using technology and what to do during certain situations.</i></p> <p><i>(May discuss current e-safety issues which are relevant to children and age appropriate)</i></p>	<p>Information Technology Unit 2:7 Making Music Digital Literacy Unit 2:2 Online Safety E- Safety week.</p> <p><i>Reminder of how to keep safe when using technology and what to do during certain situations.</i></p> <p><i>(May discuss current e-safety issues which are relevant to children and age appropriate)</i></p>	<p>Information Technology Unit2:3 Spreadsheets Suggested cross –curricular computing activities Inserts for Mothers' day cards. Inserting and editing text. Save.</p> <p>Inserts for Easter cards. Inserting and editing text. Save.</p> <p>Use word to create digital content – Blackbeard.</p> <p>Create a map on Purple mash.</p> <p>Digital Literacy <i>Reminder of ways to keep safe when using technology and what to do during certain situations.</i></p> <p><i>(May discuss current e-safety issues which are relevant to children and age appropriate)</i></p>	<p>Information Technology Unit2:4 Questioning Suggested cross –curricular computing activities Find facts about plants and record using word.</p> <p>Create plant diary using purple mash</p> <p>Digital Literacy UNIT 2:5 Effective Searching <i>Reminder of ways to keep safe when using technology and what to do during certain situations.</i></p> <p><i>(May discuss current e-safety issues which are relevant to children and age appropriate)</i></p>	<p>Information Technology UNIT 2:8 Presenting Ideas Suggested cross –curricular computing activities Computer Science Titanic animation</p> <p>Information Technology Use google and other search engines to find out more about famous inventors and changes in types of transport.</p> <p>Email attaching animation</p> <p>Healthy meal email</p> <p>Digital Literacy <i>Reminder of ways to keep safe when using technology and what to do during certain situations.</i></p> <p><i>(May discuss current e-safety issues which are relevant to children and age appropriate)</i></p>
Skills	<p>Computer Science</p> <ul style="list-style-type: none"> I can explain that an algorithm is a set of instructions to complete a task I know that computers need precise instruction I can create a simple program that achieves a specific purpose 	<p>Information Technology</p> <ul style="list-style-type: none"> I am confident when creating, naming, saving and retrieving content on Purple Mash or the Student drive. I can use a range of media in my digital content including photos, texts and sound. 	<p>Information Technology</p> <ul style="list-style-type: none"> I am confident when creating, naming, saving and retrieving content on Purple Mash or the Student drive. I can use a range of media in my digital content including photos, texts and sound. 	<p>Information Technology</p> <ul style="list-style-type: none"> I am confident when creating, naming, saving and retrieving content on Purple Mash or the Student drive. I can use a range of media in my digital content including photos, texts and sound. I can collect data using a wider range of different programmes and devices <p>Digital Literacy</p>	<p>Information Technology</p> <ul style="list-style-type: none"> I am confident when creating, naming, saving and retrieving content on Purple Mash or the Student drive. I can use a range of media in my digital content including photos, texts and sound. I can collect data using a wider range of different programmes and devices <p>Digital Literacy</p>	<p>Information Technology</p> <ul style="list-style-type: none"> I am confident when creating, naming, saving and retrieving content on Purple Mash or the Student drive. I can use a range of media in my digital content including photos, texts and sound. I can collect data using a wider range of different programmes and devices

	<ul style="list-style-type: none"> I can identify and correct some errors I can plan using logical reasoning to predict outcomes I can identify the parts of a program that respond to specific events 	<ul style="list-style-type: none"> I can collect data using a wider range of different programmes and devices 	<ul style="list-style-type: none"> I can collect data using a wider range of different programmes and devices <p>Digital Literacy</p> <ul style="list-style-type: none"> I can effectively retrieve relevant, purposeful digital content using a search engine I can explain rules to keep us safe when we are using technology both in and beyond the home. I understand how to use the Purple Mash and Bing search bar and know the implications of inappropriate searches I know how to report inappropriate content to my teacher If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust I can explain why it is important to be considerate and kind to people online. I can recognise that information can stay online and could be copied I can demonstrate how to navigate a simple webpage to get to information I need. I can recognise more detailed examples of information that is personal to me. i.e. passwords, dob, school, address. I understand the need for balance when using different technology 		<ul style="list-style-type: none"> I can effectively retrieve relevant, purposeful digital content using a search engine I can explain rules to keep us safe when we are using technology both in and beyond the home. I understand how to use the Purple Mash and Bing search bar and know the implications of inappropriate searches I know how to report inappropriate content to my teacher If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust I can explain why it is important to be considerate and kind to people online. I can recognise that information can stay online and could be copied I can demonstrate how to navigate a simple webpage to get to information I need. I can recognise more detailed examples of information that is personal to me. i.e. passwords, dob, school, address. I understand the need for balance when using different technology 	
Knowledge	<p>Unit 2:1 coding</p> <p>1 Algorithms</p> <ul style="list-style-type: none"> To understand what an algorithm is. To create a computer program using an algorithm. <p>2 Collision Detection</p> <ul style="list-style-type: none"> To create a program using a given design. To understand the collision detection event. <p>3 Using a Timer</p> <ul style="list-style-type: none"> To understand that algorithms follow a sequence. 	<p>Unit 2:6 creating pictures</p> <p>1 Introduction and Impressionism</p> <ul style="list-style-type: none"> To explore 2Paint A Picture. To look at the work of Impressionist artists and recreate them using the Impressionism template. <p>2 Pointillist Art</p> <ul style="list-style-type: none"> To look at the work of pointillist artists such as Seurat. To recreate pointillist art using the Pointillism template. <p>3 Piet Mondrian</p> <ul style="list-style-type: none"> To look at the work of Piet Mondrian and recreate it using the Lines template. 	<p>Unit 2:7 Making Music</p> <p>1. Introducing 2Sequence</p> <ul style="list-style-type: none"> To be introduced to making music digitally using 2Sequence. To explore, edit and combine sounds using 2Sequence. <p>2. Making Music</p> <ul style="list-style-type: none"> To add sounds to a tune to improve it. To think about how music can be used to express feelings and create tunes which depict feelings. <p>3. Soundtracks</p>	<p>Unit2:3 spreadsheets</p> <p>1 Reviewing prior use of spreadsheets</p> <ul style="list-style-type: none"> To review the work done in 2Calculate in year 1. To revise spreadsheet related vocabulary. To use some 2Calculate tools that were introduced in year 1. <p>2 Copying and Pasting Totalling tools</p> <ul style="list-style-type: none"> To use copying, cutting and pasting shortcuts in 2Calculate. To use 2Calculate totalling tools. To use 2Calculate to solve a simple puzzle <p>3 Using a spreadsheet to add amounts</p>	<p>Unit2:4 questioning</p> <p>1.Using and Creating Pictograms</p> <ul style="list-style-type: none"> To show that the information provided on pictograms is of limited use beyond answering simple questions <p>2. Asking Yes / No Questions</p> <ul style="list-style-type: none"> To use yes/no questions to separate information <p>3.Binary Trees</p> <ul style="list-style-type: none"> To construct a binary tree to separate different items. <p>4.Using 2Question</p> <ul style="list-style-type: none"> Use 2Question (a binary tree) to answer questions. <p>UNIT 2:5 Effective Searching</p>	<p>UNIT 2:8 presenting Ideas</p> <p>1 Presenting a Story Three Ways</p> <ul style="list-style-type: none"> To explore how a story can be presented in different ways. <p>2 Presenting Ideas as a Quiz</p> <ul style="list-style-type: none"> To make a quiz about a story or class topic. <p>3 Making a Non-Fiction Fact File</p> <ul style="list-style-type: none"> To make a fact file on a non-fiction topic. <p>4 Making a Presentation</p> <ul style="list-style-type: none"> To make a presentation to the class.

	<ul style="list-style-type: none"> To design an algorithm that follows a timed sequence. <p>4 Different Object Types</p> <ul style="list-style-type: none"> To understand that different objects have different properties. To understand what different events do in code. <p>5 Buttons</p> <ul style="list-style-type: none"> To create a program using a given design. To understand the function of buttons in a program. <p>6 'Smelly Code' Debugging</p> <ul style="list-style-type: none"> To know what debugging means. To understand the need to test and debug a program repeatedly. To debug simple programs. 	<p>4 William Morris and Pattern</p> <ul style="list-style-type: none"> To look at the work of William Morris and recreate it using the Patterns template. <p>5 Surrealism and eCollage</p> <ul style="list-style-type: none"> To look at some surrealist art and create your own using the eCollage function in 2Paint A Picture. 	<ul style="list-style-type: none"> 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 <p>Unit 2:2 Online Safety</p> <p>1 Searching and Sharing</p> <ul style="list-style-type: none"> 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. <p>2 Email Using 2Respond</p> <ul style="list-style-type: none"> To introduce Email as a communication tool using 2Respond simulations. To understand how we talk to others when they are not there in front of us. To open and send simple online communications in the form of email. <p>3 Digital Footprint</p> <ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> To explore the capabilities of a spreadsheet in adding up coins to match the prices of objects <p>4 Creating a table and block graph</p> <ul style="list-style-type: none"> To add and edit data in a table layout. To use the data to manually create a block graph. 	<p>1 Understanding the Internet and Searching</p> <ul style="list-style-type: none"> To understand the terminology associated with the Internet and searching. <p>2 Searching the Internet</p> <ul style="list-style-type: none"> To gain a better understanding of searching the Internet. <p>3 Sharing Knowledge of the Internet and Effective Searching</p> <ul style="list-style-type: none"> To create a leaflet to help someone search for information on the Internet. 	
<p>Vocabulary</p> <p><i>*Ambitious vocabulary</i></p> <p><i>*previous vocabulary</i></p>	<p>Unit 2:1 Coding vocab – Action, algorithm, background, button, collision detection, Debug / debugging, Design mode, Event, Key pressed, Nesting, Object, Predict, Properties, Run, Scale, Scene, Sequence, Sound, Test, Text, Timer, When clicked / swiped</p>	<p>Unit 2:6 creating pictures vocab - Impressionism, palette, pointillism, share, surrealism, template,</p>	<p>Unit 2:7 making Music vocab – bpm, composition, digitally, instrument, music, sound effects (SFX), soundtrack, tempo, volume,</p>	<p>Unit2:3 spreadsheets vocab – backspace key, copy and paste, columns, cells, count tool, delete key, equals tool, image toolbox, lock tool, move cell tool, rows, speak tool</p>	<p>UNIT 2:4 Questioning vocab Pictogram, question, data, collate, binary tree, avatar, database</p> <p>UNIT 2:5 Effective Searching vocab Internet search, search engine,</p>	<p>UNIT 2:8 Presenting Ideas vocab Concept map (mind nap), node, animated, quiz, non-fiction, presentation, narrative, audience,</p>
<p>General vocab</p>						

	keyboard, monitor, mouse, internet, cursor, login, username, password, avatar, logout, instruction, algorithm, computer, program, debug, technology, camera, photos, data, devices, personal information, online, sharing, safety, Beebot, Direction, rewind, challenge, forward, backwards, right turn, undo, arrow,
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Local links/Inspiration /Enrichment activities

Internet safety day [Online Safety Day 11th February 2025](#)

Parent workshop/ online information

Internet safety assembly **to launch internet safety week**

Key Stage 1 Statements taken from National Curriculum –(Statutory Requirements)

Pupils should be taught about:

- 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.

Statements taken from National Curriculum – Spoken Language (Literacy) (Statutory Requirements)

Pupils should be taught to:

- *Listen and respond appropriately to adults and their peers*
- *Ask relevant questions to extend their understanding and knowledge*
- *Use relevant strategies to build their vocabulary*
- *Articulate and justify answers, arguments and opinions*
- *Give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings*
- *Maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments*
- *Participate in discussions, presentations, performances, role play, improvisations and debates*
- *Consider and evaluate different viewpoints, attending to and building on the contributions of others*

Impact of the Computing Curriculum

Our computing curriculum is high quality, well thought out and is planned to demonstrate progression and consolidation. The ongoing changes to the curriculum to implement the Purple Mash scheme of Work will ensure that the curriculum is well covered and that there is a clear progression of learning across Key Stage 1.

After the implementation of this robust computing curriculum, children at Netherhall St James Nursery and Infant school will be digitally literate and able to join the rest of the world on its digital platform. They will be equipped, not only with the skills and knowledge to use technology effectively and for their own benefit, but more importantly – safely. The biggest impact we want for our children is that they understand the consequences of using the internet and that they are also aware of how to keep themselves safe online.

As children become more confident in their abilities in Computing, they will become more independent and key life skills such as problem-solving, logical thinking and self-evaluation become second nature.