

## Computing Curriculum

### E-Safety

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

Nursery					
<b>Aut 1 - Nursery Rhymes</b>  Introduction to mouse skills using Tizzy' Busy Week programme.	<b>Aut 2 - Brilliant Birds</b>  Dressing Lecky in appropriate clothes for the weather game on the IWB	<b>Spr 1 - Pets</b>  Using a camera to take a picture of their favourite animal.	<b>Spr 2 - Splash</b>  Using Beebots to find the hidden treasure on the squared board.	<b>Sum 1 - 3 Bears</b>  Colouring a bear outline on Purple Mash, focus on mouse control.  Using remote control cars.	<b>Sum 2 - Mini beast Madness</b>  Using I-pads to draw mini beasts.  Programming code-a-pillars.
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.					
<b>Ongoing as part of the provision:</b> Access to computer with simple games that involve following instructions and using the mouse. I-pad sessions in small groups. Opportunities to use and explore a variety of electronic toys.					
<b>Key Vocab to be developed</b> Computer, mouse, beebot, remote control toy, ipad, phone, camera, click, CD player, SMART board, TV, switch, on/off					
Reception					
<b>Aut 1 - Friendship, Can we be friends?</b>  -Painting monsters using Purple mash soft ware -Talking phones	<b>Aut 2 - Who helps us?</b>  -bee bot emergency cars - remote control cars	<b>Spr 1 - What's it like far away?</b>  Looking for facts on Google Painting animals on Purple Mash Simple programming using positional language and direction.	<b>Spr 2 - Can we save the world?</b>  Taking pictures in the wild area  Programming code-a-pillars	<b>Sum 1 - What did Grandma use to read?</b>  -purple mash story sequencing and writing	<b>Sum 2 - What's it like down on the farm?</b>  -purple mash making a farm and labelling

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**Ongoing as part of the provision**

Ongoing use of bee-bots, Ipads and a range of technology

**Key Vocab to be developed**

Computing, ipad, computer, monitor, keyboard, mouse, drag, drop, programme, information, screen, image, click, select (choose), CD, remote, control, sound, battery, app, camera, press, toy, button, switch/on/off

**Year One Curriculum,**

Topics	Aut 1 - Getting to know me and my world.	Aut 2 - A Toy's Story	Spr 1 - Our Animal Adventures	Spr 2 - To infinity and Beyond	Sum 1 - Ready, Steady, Grow	Sum 2 - Bright lights, Big city.
	<p><b><u>Computer Science</u></b></p> <p>Bee- bot algorithm journey to school (Start 2020-2021)</p> <p><b><u>Information Technology</u></b></p> <p>Understanding the different parts of a computer and their purposes e.g. keyboard, mouse</p> <p>Looking at technology in the wider world- what different types of technology do we have in each room of our house?</p>	<p><b><u>Computer Science</u></b></p> <p>Access to different programmable toys- bee bots, remote cars etc.</p> <p><b><u>Information Technology</u></b></p> <p>Use the internet to search for images of toys. Save and retrieve these images onto word document.</p> <p>Saving and retrieving a word document</p> <p><b><u>Digital Literacy</u></b></p> <p>E Saffey story – Smartie the penguin</p>	<p><b><u>Information Technology</u></b></p> <p>Using the internet to search for databases to collect information about different animals</p> <p>Use dazzle to draw an animal and label it using text feature.</p> <p>Purple mash- Create a fact file about an animal</p> <p><b><u>Digital Literacy</u></b></p> <p>Internet Safety Day</p>	<p><b><u>Computer Science</u></b></p> <p>Bee-bot algorithm space sequencing cards</p> <p>Purple mash- 2Go Spaceman rescue coding</p> <p><b><u>Information Technology</u></b></p> <p>Use dazzle to create a solar system</p> <p>Purple mash- Create a planet fact file</p> <p><b><u>Digital Literacy</u></b></p> <p>Digiduck (To start 2020/2021)</p>	<p><b><u>Computer Science</u></b></p> <p>2Animate – flower growing</p> <p>Purple mash – labelling plants/trees.</p> <p><b><u>Information Technology</u></b></p> <p>2Animate – flower growing</p> <p>Designing Fruit Kebab</p> <p>Researching different countries where fruit grows.</p> <p><b><u>Digital Literacy</u></b></p> <p>Reminder of ways to keep safe when using technology and what to do during certain situations.</p> <p>(May discuss current e-safety issues which are</p>	<p><b><u>Computer Science</u></b></p> <p>Using google maps/3D maps/webcams to explore London landmarks.</p> <p><b><u>Information Technology</u></b></p> <p>Using the internet to search for information about the royal family – ipads/ computers</p> <p><b><u>Digital Literacy</u></b></p> <p>Reminder of ways to keep safe when using technology and what to do during certain situations.</p> <p>(May discuss current e-safety issues which are</p>

	<p>Using Dazzle application to create a self-portrait</p> <p><b><u>Digital Literacy</u></b></p> <p>Introduced to passwords- the purpose of them and why it's important to keep them safe</p> <p>Reminder of ways to keep safe when using technology and what to do during certain situations.</p> <p>(May discuss current e-safety issues which are relevant to children and age appropriate)</p>	<p>Who to ask for help when using the internet.</p> <p>Reminder of ways to keep safe when using technology and what to do during certain situations.</p> <p>(May discuss current e-safety issues which are relevant to children and age appropriate)</p>	<p>Reminder of ways to keep safe when using technology and what to do during certain situations.</p> <p>(May discuss current e-safety issues which are relevant to children and age appropriate)</p>	<p>What to keep private on the internet.</p> <p>Reminder of ways to keep safe when using technology and what to do during certain situations.</p> <p>(May discuss current e-safety issues which are relevant to children and age appropriate)</p>	<p>relevant to children and age appropriate)</p>	<p>relevant to children and age appropriate)</p>
<b>Milestones</b>	<p><b><u>Computer Science</u></b></p> <p>I understand an algorithm is a set of ordered instructions</p> <p>I can create and test an algorithm using a simple programme or programmable toy</p> <p>I can debug a simple programme</p> <p><b><u>Information Technology</u></b></p> <p>I can use a range of applications and devices to create digital content</p>	<p><b><u>Computer Science</u></b></p> <p>I understand an algorithm is a set of ordered instructions</p> <p>I can create and test an algorithm using a simple programme or programmable toy</p> <p>I can debug a simple programme</p> <p><b><u>Information Technology</u></b></p> <p>I can save and retrieve digital content</p>	<p><b><u>Information Technology</u></b></p> <p>I can search for information using the internet</p> <p>I can collect data using different programmes and devices</p> <p>I can use a range of applications and devices to create digital content</p> <p>I can use a range of applications and devices to create digital content</p>	<p><b><u>Computer Science</u></b></p> <p>I understand an algorithm is a set of ordered instructions</p> <p>I can create and test an algorithm using a simple programme or programmable toy</p> <p>I can debug a simple programme</p> <p><b><u>Information Technology</u></b></p> <p>I can use a range of applications and devices</p>	<p><b><u>Computer Science</u></b></p> <p>I understand an algorithm is a set of ordered instructions</p> <p>I can create and test an algorithm using a simple programme or programmable toy</p> <p>I can debug a simple programme</p> <p><b><u>Information Technology</u></b></p> <p>I can use a range of applications and</p>	<p><b><u>Computer Science</u></b></p> <p><b><u>Information Technology</u></b></p> <p>I can save and retrieve digital content</p> <p>I can search for information using the internet</p> <p>I can search for information using the internet</p> <p><b><u>Digital Literacy</u></b></p>

	<p>I can use a mouse and keyboard competently</p> <p>I can recognise common uses of technology beyond school</p> <p><b><u>Digital Literacy</u></b></p> <p>I understand I should not share any personal information online</p>	<p>I can search for information using the internet</p> <p>I can use a range of applications and devices to create digital content</p> <p><b><u>Digital Literacy</u></b></p> <p>I understand who I should seek help from if I see something online I do not like</p> <p>I understand I have the right to enjoy the internet and to feel safe and happy</p>	<p>I can use a mouse and keyboard competently</p> <p>I can save and retrieve digital content</p> <p><b><u>Digital Literacy</u></b></p> <p>I understand I have the right to enjoy the internet and to feel safe and happy</p> <p>I understand I should not take a photo or video of myself or others using a device/ app and share it online</p> <p>I understand I should not share any personal information online</p> <p>I understand I should only use kind words on the internet</p>	<p>to create digital content</p> <p>I can use a range of applications and devices to create digital content</p> <p><b><u>Digital Literacy</u></b></p> <p>I understand I have the right to enjoy the internet and to feel safe and happy</p> <p>I understand I should not take a photo or video of myself or others using a device/ app and share it online</p> <p>I understand I should not share any personal information online</p> <p>I understand I should only use kind words on the internet</p>	<p>devices to create digital content</p> <p>I can use a range of applications and devices to create digital content</p> <p>I can collect data using different programmes and devices</p> <p><b><u>Digital Literacy</u></b></p> <p>I understand I have the right to enjoy the internet and to feel safe and happy</p> <p>I understand I should not take a photo or video of myself or others using a device/ app and share it online</p> <p>I understand I should not share any personal information online</p> <p>I understand I should only use kind words on the internet</p>	<p>I understand I have the right to enjoy the internet and to feel safe and happy</p> <p>I understand I should not take a photo or video of myself or others using a device/ app and share it online</p> <p>I understand I should not share any personal information online</p> <p>I understand I should only use kind words on the internet</p>
<p><b>Key vocabulary to be taught</b></p> <p>Algorithm, set order, instructions, position, direction, switch on/off, test, programme, debug, beebot, ipad, mouse, keyboard, monitor, cursor, internet, database, search engine, applications, data, devices, technology, safety, personal information, online, sharing, copy, paste, save, retrieve, digital content, photos, camera, balance</p>						
<p><b>Year Two Curriculum</b></p>						

	Aut 1 – Wonders of the World If you had a magic carpet where would you go?	Aut 2 – London's Burning! What was it like in London in 1666?	Spr 1 – African Adventure What is it like to live in Africa?	Spr 2 – Ahoy there! What is it like to be a pirate?	Sum 1 – Glorious gardens! Where does chocolate come from?	Sum 2 – Transport Travelling, trains and the Titanic!
	<p><b><u>Computer Science-</u></b> Create silly character using step by step instructions.</p> <p>Beebots on a world map – give instructions to find continents.</p> <p><b><u>Information Technology</u></b></p> <p>Use dazzle to design and create a magic carpet.</p> <p>Using dazzle to create a European landmark. Save and retrieve.</p> <p><b><u>Digital Literacy</u></b></p> <p>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</i></p>	<p><b><u>Computer Science</u></b></p> <p>Use bee bots to give instructions and de – bug.</p> <p><b><u>Information Technology</u></b></p> <p>Use application 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>Model and create GFOL pictures on dazzle for display.</p> <p><b><u>Digital Literacy</u></b></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><b><u>Computer Science</u></b></p> <p>Watch tutorial on how to play maze game.</p> <p>Play example to experience.</p> <p>Choose a character and give algorithm to instruct movement.</p> <p>Build walls for maze. Look at how to debug programme if needed.</p> <p>Add prize and baddies to game and test algorithm.</p> <p>Play game and test each other's.</p> <p>Save game after each lesson.</p> <p><b><u>Digital Literacy</u></b></p> <p>E- Safety week.</p> <p><i>Reminder of ways to keep safe when using technology and what to do during certain situations.</i></p>	<p><b><u>Information Technology</u></b></p> <p>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><b><u>Digital Literacy</u></b></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><b><u>Information Technology</u></b></p> <p>Find facts about plants and record using word.</p> <p>Create plant diary using purple mash</p> <p><b><u>Digital Literacy</u></b></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><b><u>Computer Science</u></b> Titanic animation</p> <p><b><u>Information Technology</u></b></p> <p>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><b><u>Digital Literacy</u></b></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>

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#### Key vocabulary to be taught

Algorithm, set order, instructions, position, direction, switch on/off, test, programme, debug, beebot, ipad, mouse, keyboard, monitor, cursor, internet, database, search engine, applications, data, devices, technology, safety, personal information, online, sharing, copy, paste, save, retrieve, digital content, photos, camera, balance

#### Local links/Inspiration /Enrichment activities

Internet safety day  
Parent workshop

Internet safety assembly
<b>Key Stage 1 Statements taken from National Curriculum -(Statutory Requirements)</b>
<p><b>Pupils should be taught about:</b></p> <ul style="list-style-type: none"> <li>• understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</li> <li>• create and debug simple programs</li> <li>• use logical reasoning to predict the behaviour of simple programs</li> <li>• use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> <li>• recognise common uses of information technology beyond school</li> <li>• 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.</li> </ul>
<b>Statements taken from National Curriculum – Spoken Language (Literacy) (Statutory Requirements)</b>
<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>• <i>Listen and respond appropriately to adults and their peers</i></li> <li>• <i>Ask relevant questions to extend their understanding and knowledge</i></li> <li>• <i>Use relevant strategies to build their vocabulary</i></li> <li>• <i>Articulate and justify answers, arguments and opinions</i></li> <li>• <i>Give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings</i></li> <li>• <i>Maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments</i></li> <li>• <i>Participate in discussions, presentations, performances, role play, improvisations and debates</i></li> <li>• <i>Consider and evaluate different viewpoints, attending to and building on the contributions of others</i></li> </ul>

### **Impact of the ----- Curriculum**

Our computing curriculum is high quality, well thought out and is planned to demonstrate progression and consolidation. 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 on 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.