



**INSPIRE NURTURE BELIEVE ACHIEVE**

*Working together to be the best that we can be.*

## Computing Curriculum Progression of Skills

Happiness

Perserverance

Resilience

Kindness

Friendship

Respect

# Year 1

Year 1			
Skill Strand	Computer Science		
	Problem Solving	Programming	Logical Reasoning
<b>Skills</b>	Understanding what algorithms are Understand how algorithms are implemented as programs on digital devices.	Create and debug simple programmes	Use logical reasoning to predict the behaviour of simple programmes.
<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>• <i>Make a sandwich and plot out a sequence of steps.</i></li> <li>• <i>Move a beebot from one position to another.</i></li> <li>• <i>Create an algorithm for design of a toy</i></li> </ul> <p style="color: red; margin-top: 10px;"><b>Vocabulary:</b> Algorithm, sequence, beebot, move, position, design</p>	<ul style="list-style-type: none"> <li>• <i>Find the error from beebot sequencing cards.</i></li> </ul> <p style="color: red; margin-top: 10px;"><b>Vocabulary:</b> Create, debug, programme, beebot</p>	<ul style="list-style-type: none"> <li>• <i>Use a familiar computer game to make a prediction on what they think might happen.</i></li> <li>• <i>Record children's responses &amp; their reasoning</i></li> </ul> <p style="color: red; margin-top: 10px;"><b>Vocabulary:</b> Prediction, programme,</p>
<b>Resources/online</b>	Beebots	Beebots, sequencing cards	Computer game (eg. Obb Bob phonics game), recording equipment
Skill Strand	Digital Literacy		
	E-Safety	Using IT beyond School	
<b>Skills</b>	<ul style="list-style-type: none"> <li>• Use technology safely and respectfully.</li> <li>• Keeping personal information private.</li> <li>• Identify where to go for help and support when they have concerns.</li> </ul>	<ul style="list-style-type: none"> <li>• Recognise common uses of IT beyond school.</li> </ul>	
<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>• <i>Discussion around an example or model</i></li> <li>• <i>Circle time</i></li> </ul> <p style="color: red; margin-top: 10px;"><b>Vocabulary:</b></p>	<ul style="list-style-type: none"> <li>• <i>Can you find 5 things at home/in school that are digital? Discussion focused around this.</i></li> </ul> <p style="color: red; margin-top: 10px;"><b>Vocabulary:</b></p>	

	Technology, safe, personal information, private, website	Digital, technology, home, school, iplayer, internet
Resources/online	websites, Safesearch, CEOP, NSPCC	i-player kids,
<b>Skill Strand</b>	<b>Information Technology</b>	
	<b>Creating Content</b>	<b>Searching</b>
<b>Skills</b>	<ul style="list-style-type: none"> <li>• Use technology purposefully to organise, store and retrieve digital content.</li> <li>• Use technology purposefully to create and manipulate digital content.</li> </ul>	N/A
<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>• <i>How to open/save a document.</i></li> <li>• <i>Insert a picture onto a document.</i></li> <li>• <i>Insert text onto a word document/text box.</i></li> <li>• <i>Use smart notebook.</i></li> </ul> <p><b>Vocabulary:</b> Technology, organise, store, retrieve, open, save, document, insert, text, text box, smart, laptop, I-pad,</p>	N/A
Resources/online	Laptops, i-pads, smart notebook, MS office.	

## Year 2

Year 2			
Skill Strand	Computer Science		
	Problem Solving	Programming	Logical Reasoning
<b>Skills</b>	Understanding what algorithms are Understand how algorithms are implemented as programs on digital devices.	Create and debug simple programmes	Use logical reasoning to predict the behaviour of simple programmes.
<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>Look at brushing teeth as an algorithm.</li> <li>Rules in a game are algorithms.</li> </ul> <p><b>Vocabulary:</b> Algorithm, sequence, beebot, move, position, design, program, rules,</p>	<ul style="list-style-type: none"> <li>Use Beebot sequencing cards to plan how to move a Beebot from one place to another.</li> <li>Trial the code and edit/ adjust as needed.</li> <li>Use Scratch Junior with pre made sprites. Move the sprite from one place to another.</li> </ul> <p><b>Vocabulary:</b> Create, debug, program, beebot, sequence, code, edit, Scratch, sprite</p>	<ul style="list-style-type: none"> <li>Use a familiar computer game to make a prediction on what they think might happen.</li> <li>Predict what will happen in the pre made Scratch Jr game.</li> </ul> <p><b>Vocabulary:</b> Prediction, programme, logic, behaviour, Scratch</p>
<b>Resources/online</b>	Beebots	Beebots, sequencing cards Scratch Jnr	Scratch Jnr
Skill Strand	Digital Literacy		
	E-Safety	Using IT beyond School	
<b>Skills</b>	<ul style="list-style-type: none"> <li>Use technology safely and respectfully.</li> <li>Keeping personal information private.</li> <li>Identify where to go for help and support when they have concerns.</li> </ul>	<ul style="list-style-type: none"> <li>Recognise common uses of IT beyond school.</li> </ul>	
<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>Discussion around an example or model</li> <li>Circle time.</li> <li>Use Safesearch to find images linked to a topic</li> <li>Introduce age restriction signs on computer games. What do they mean?</li> </ul> <p><b>Vocabulary:</b></p>	<ul style="list-style-type: none"> <li>Look at the uses of IT in professions e.g. doctors, scientists etc. What IT is used? What is it used for?</li> <li>Discussion about technology uses in school and at home this could be recorded as a brainstorm of ideas, a homework task etc.</li> </ul> <p><b>Vocabulary:</b></p>	

	Technology, safe, personal information, private, website, safesearch, images,	Digital, technology, home, school, iplayer, internet, IT, workplace,
Resources/online	websites, Safesearch, CEOP, NSPCC	Camera, laptops
Skill Strand	<b>Information Technology</b>	
	<b>Creating Content</b>	<b>Searching</b>
Skills	<ul style="list-style-type: none"> <li>• Use technology purposefully to organise, store and retrieve digital content.</li> <li>• Use technology purposefully to create and manipulate digital content.</li> </ul>	N/A
Lesson ideas	<ul style="list-style-type: none"> <li>• <i>Create a PowerPoint presentation linked to a topic.</i></li> <li>• <i>Recap on opening and saving documents.</i></li> <li>• <i>Inserting and editing pictures.</i></li> <li>• <i>Create a poster linked to a topic using Word/ Publisher.</i></li> </ul> <p><b>Vocabulary:</b> Technology, organise, store, retrieve, open, save, document, insert, text, text box, edit, smart, laptop, I-pad, Word, PowerPoint, Publisher,</p>	N/A
Resources/online	Laptops, i-pads, smart notebook, MS office.	

## Year 3

Skill Strand	Computer Science		
	Problem Solving	Programming	Logical Reasoning
<b>Skills</b>	<p>Design, write and debug programs that accomplish specific goals. Controlling or simulating physical systems. Solve problems by decomposing them into smaller parts</p>	<p>Use sequence, selection and repetition in programs; work with variables. Work with various forms of input and output</p>	<p>Use logical reasoning to explain how some simple algorithms work. Use logical reasoning to detect and correct errors in algorithms and programs. Understand computer networks including the internet. Understand how networks can provide multiple services, such as the world wide web.</p>
<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>• <i>Use the pro-bot pit stop car or in o bot scratch programmable floor robot and move it safely around a course/ map. Plan instructions first and discuss what you think will happen.</i></li> <li>• <i>Create an animation in Scratch.</i></li> <li>• <i>Include movement, dialogue and sound effects.</i></li> <li>• <i>Use Scratch to create a basic game eg racing, tennis. How does it simulate physical systems?</i></li> <li>• <i>Keep a video log or a journal to show the development of their Scratch game. Analysis what went well and what could be improved.</i></li> </ul> <p><b>Vocabulary:</b> Algorithm, sequence, instructions, pro-bot, move, position, design, program, rules, design, write, debug, animation, dilogue, sound</p>	<ul style="list-style-type: none"> <li>• <i>Create sequences of instructions in their Scratch animation program e.g. instructions could include movement, sound effects, costume change etc.</i></li> </ul> <p><b>Vocabulary:</b> Create, debug, program, beebot, sequence, code, edit, Scratch, sprite, variables, instructions, sound effects,</p>	<ul style="list-style-type: none"> <li>• <i>Use logical reasoning to spot bugs in their animation.</i></li> <li>• <i>Use logical reasoning to explain what they think another person's game might do- this could be a recording or a written task (a carousel afternoon would be good for this).</i></li> <li>• <i>Look at what the Internet is- research topic.</i></li> <li>• <i>How is information shared over the internet?</i></li> <li>• <i>Send an email to a child from your class. How are emails sent?</i></li> <li>• <i>Use Skype to communicate with Goldsborough / Sicklinghall class.</i></li> </ul> <p><b>Vocabulary:</b> Prediction, programme, logic, behaviour, Scratch, logic, errors, networks, internet, WWW, reasoning, bugs, email, video calls,</p>

	effects, Scratch, video log, analyse		
<b>Resources/online</b>	Scratch, I-pads, pro-bot pit stop, In O Bot scratch programmable Bluetooth floor robot	Scratch, I-pads,	Scratch, I-pads, Skype or other video conferencing programme, email addresses
<b>Skill Strand</b>	<b>Digital Literacy</b>		
	<b>E-Safety</b>		
<b>Skills</b>	<p>Use technology safely, respectfully and responsibly.</p> <p>Recognise acceptable/ unacceptable behaviour.</p> <p>Know a range of ways to report concerns and inappropriate behaviour.</p> <p>Be discerning in evaluating digital content.</p> <p>Understand the opportunities networks offer for communication and collaboration</p>		

<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>• <i>Debate topic linked to acceptable/ unacceptable behaviour online.</i></li> <li>• <i>Look at CEOP videos and discuss safe technology use.</i></li> <li>• <i>Introduce ‘fake news’. How can we tell what is real or made up online? Look at websites like Wikipedia and explain how anyone can edit and add to the site.</i></li> </ul> <p><b>Vocabulary:</b> Technology, safety, personal information, private, website, safesearch, images, responsibly, acceptable/unacceptable behaviour, concerns, evaluating, online, fake news, CEOP,</p>	
<b>Resources/online</b>	Laptops, I-pads, CEOP, NSPCC	
<b>Skill Strand</b>	<b>Information Technology</b>	
	<b>Creating Content</b>	<b>Searching</b>
<b>Skills</b>	Select, use and combine a variety of software (including internet services) on a range of digital devices. Design and create a range of programs, systems and content that accomplish given goals. Collecting, analysing, evaluating and presenting data and information.	Use search technologies effectively. Appreciate how search results are selected and ranked.
<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>• <i>Create a survey and present their results using programmes like MS Excel.</i></li> <li>• <i>Create a video linked to class topic.</i></li> <li>• <i>Create a presentation linked to a class topic in teams. This could be done like a Dragon’s Den pitch and people vote for the best idea.</i></li> </ul> <p><b>Vocabulary:</b> Technology, organise, store, retrieve, open, save, document, insert, text, text box, edit, video links, smart, laptop, I-pad, MS Office, Word, PowerPoint, Excel, Publisher, software, digital, systems, content, analysing, evaluating,</p>	<ul style="list-style-type: none"> <li>• <i>Use search engines to research a project.</i></li> <li>• <i>Model use of keywords- think of good key words to search for linked to the topic.</i></li> <li>• <i>Use search functions on a website as well as find function on MS Word programme.</i></li> </ul> <p><b>Vocabulary:</b> Search engine, key words, search functions,</p>
<b>Resources/online</b>	Laptops, i-pads, MS office.	Laptops, I-pads

# Year 4

Skill Strand	Computer Science		
	Problem Solving	Programming	Logical Reasoning
<b>Skills</b>	<p>Design, write and debug programs that accomplish specific goals. Controlling or simulating physical systems. Solve problems by decomposing them into smaller parts</p>	<p>Use sequence, selection and repetition in programs; work with variables. Work with various forms of input and output</p>	<p>Use logical reasoning to explain how some simple algorithms work. Use logical reasoning to detect and correct errors in algorithms and programs. Understand computer networks including the internet. Understand how networks can provide multiple services, such as the world wide web.</p>
<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>• <i>Create a sprite and a game in Scratch.</i></li> <li>• <i>Include movement, sound effects and user interface e.g. answering a question or by using key presses or the mouse.</i></li> <li>• <i>Create a prototype of a project on screen link to DT/ SITE projects.</i></li> </ul> <p><b>Vocabulary:</b>                      Alorithm, sequence, instructions, move, position, design, program, rules, design, write, debug, animation, dialogue, sound effects, Scratch, video log, analyse</p>	<ul style="list-style-type: none"> <li>• <i>Scratch programme should include sequences of commands or blocks and some repetition.</i></li> <li>• <i>The child can write a program that displays a question, accepts typed input and responds in an appropriate way to what is typed. This might be used as the basis for a dialogue program or a simple maths game.</i></li> </ul> <p><b>Vocabulary:</b>                      Create, debug, program, repetition, sequence, code, edit, Scratch, sprite, variables, instructions, sound effects, input/output</p>	<ul style="list-style-type: none"> <li>• <i>Children are given an algorithm and need to explain it. This could be verbal or written.</i></li> <li>• <i>The child can give an explanation of how requests for web pages, and the HTML for those pages, are transmitted via the internet.</i></li> <li>• <i>Children create an email response to an email sent to the class. This could be linked to a class topic.</i></li> </ul> <p><b>Vocabulary:</b>                      Prediction, programme, logic, behaviour, Scatch, logic, errors, networks, internet, WWW, reasoning, bugs, email, video calls,</p>

<b>Resources/online</b>	Scratch, I-pads, pro-bot pit stop, In O Bot scratch programmable Bluetooth floor robot	Scratch, I-pads,	Scratch, I-pads, Skype or other video conferencing programme, email addresses
<b>Skill Strand</b>	<b>Digital Literacy</b>		
	<b>E-Safety</b>		
<b>Skills</b>	Use technology safely, respectfully and responsibly. Recognise acceptable/ unacceptable behaviour. Know a range of ways to report concerns and inappropriate behaviour. Be discerning in evaluating digital content. Understand the opportunities networks offer for communication and collaboration		
<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>• <i>Debate topic linked to acceptable/ unacceptable behaviour online.</i></li> <li>• <i>Look at CEOP videos and discuss safe technology use.</i></li> <li>• <i>Create a video/ presentation/ poster about how to be safe online.</i></li> <li>• <i>Look at copywrite of music and films.</i></li> <li>• <i>Creating a strong password- rank the passwords strongest to weakest. Do we all agree? Discuss opinions- could create posters about safe passwords to display around the school.</i></li> </ul> <p><b>Vocabulary:</b>          Technology, safety, personal information, private, website, safesearch, images, responsibly, acceptable/unacceptable behaviour, concerns, evaluating, online, fake news, CEOP, copyright, password strengths,</p>		
<b>Resources/online</b>	Laptops, I-pads, CEOP, NSPCC		
<b>Skill Strand</b>	<b>Information Technology</b>		
	<b>Creating Content</b>	<b>Searching</b>	
<b>Skills</b>	Select, use and combine a variety of software (including internet services) on a range of digital devices. Design and create a range of programs, systems and content that accomplish given goals. Collecting, analysing, evaluating and presenting data and information.	Use search technologies effectively. Appreciate how search results are selected and ranked.	

<p><b>Lesson ideas</b></p>	<ul style="list-style-type: none"> <li>• <i>Create a survey and present their results using programmes like MS Excel.</i></li> <li>• <i>Create a video linked to class topic.</i></li> <li>• <i>Create a presentation linked to a class topic in teams. This could be done like a Dragon's Den pitch and people vote for the best idea.</i></li> </ul> <p><b>Vocabulary:</b> Technology, organise, store, retrieve, open, save, document, insert, text, text box, edit, video links, smart, laptop, I-pad, MS Office, Word, PowerPoint, Excel, Publisher, software, digital, systems, content, analysing, evaluating,</p>	<ul style="list-style-type: none"> <li>• <i>Use search engines to research a project.</i></li> <li>• <i>Introduction to page ranking. Teach the children that pages are ranked based on their relevance to the search terms.</i></li> <li>• <i>Use Google to answer questions based on a topic- use Safe search for this.</i></li> </ul> <p><b>Vocabulary:</b> Search engine, key words, search function</p>
<p><b>Resources/online</b></p>	<p>Laptops, i-pads, MS office.</p>	<p>Laptops, I-pads</p>

# Year 5

Skill Strand	Computer Science		
	Problem Solving	Programming	Logical Reasoning
<b>Skills</b>	<p>Design, write and debug programs that accomplish specific goals. Controlling or simulating physical systems. Solve problems by decomposing them into smaller parts</p>	<p>Use sequence, selection and repetition in programs; work with variables. Work with various forms of input and output</p>	<p>Use logical reasoning to explain how some simple algorithms work. Use logical reasoning to detect and correct errors in algorithms and programs. Understand computer networks including the internet. Understand how networks can provide multiple services, such as the world wide web.</p>
<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>• <i>Create a game on the Minecraft website.</i></li> <li>• <i>Use programmes other than Scratch e.g. Kodu.</i></li> </ul> <p><b>Vocabulary:</b> Alorithm, sequence, instructions, move, position, design, program, rules, write, debug, dialogue, Scratch, Kodu, analyse</p>	<ul style="list-style-type: none"> <li>• <i>Use the microbits and Javascript e.g. build a reaction timer.</i></li> <li>• <i>Connect a microbit to a raspberry pi. Link to minecraft.</i></li> <li>• <i>Lego project- use the microbit to create an object of choice e.g. control tower, rocket car etc. Children create the project and record the design process using a variety of programmes.</i></li> </ul> <p><b>Vocabulary:</b> Create, debug, program, repetition, sequence, code, edit, Scratch, variables, instructions, input/output, microbits, javascript,</p>	<ul style="list-style-type: none"> <li>• <i>Focus on rule-based algorithms. What do they do?</i></li> <li>• <i>Introduce computer networking. Recap on what the internet is. Focus on school network.</i></li> <li>• <i>Explain how HTML is used to create a web page and how it is transmitted as packets of digital data over the internet.</i></li> </ul> <p><b>Vocabulary:</b> Prediction, programme, logic, behaviour, logic, errors, networks, internet, WWW, HTML, reasoning, bugs, email,</p>

<b>Resources/online</b>	Raspberry Pi, 4WD and robotic arm kits, Minecraft website, Lego Mindstorms, Pi2Go	Raspberry Pi, 4WD and robotic arm kits, Minecraft website, Lego Mindstorms, Pi2Go <a href="https://make.techwillsaveus.com/bbc-microbit/activities/lego-exploration">https://make.techwillsaveus.com/bbc-microbit/activities/lego-exploration</a> <a href="https://projects.raspberrypi.org/en/projects/micromine-bitcraft">https://projects.raspberrypi.org/en/projects/micromine-bitcraft</a>	
<b>Skill Strand</b>	<b>Digital Literacy</b>		
<b>Skills</b>	<p><b>E-Safety</b></p> <p>Use technology safely, respectfully and responsibly. Recognise acceptable/ unacceptable behaviour. Know a range of ways to report concerns and inappropriate behaviour. Be discerning in evaluating digital content. Understand the opportunities networks offer for communication and collaboration</p>		
<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>• <i>Debate topic linked to acceptable/ unacceptable behaviour online.</i></li> <li>• <i>Look at CEOP videos and discuss safe technology use.</i></li> <li>• <i>Introduce 'fake news'. How can we tell what is real or made up online? Look at websites like Wikipedia and explain how anyone can edit and add to the site.</i></li> <li>• <i>Create a presentation for Class 3 children about how to stay safe online.</i></li> </ul> <p><b>Vocabulary:</b> Technology, safety, personal information, private, website, safesearch, images, responsibly, acceptable/unacceptable behaviour, concerns, evaluating, online, fake news, CEOP, copyright, password strengths,</p>		
<b>Resources/online</b>	Laptops, I-pads, CEOP, NSPCC		

Skill Strand	Information Technology	
	Creating Content	Searching
<b>Skills</b>	Select, use and combine a variety of software (including internet services) on a range of digital devices. Design and create a range of programs, systems and content that accomplish given goals. Collecting, analysing, evaluating and presenting data and information.	Use search technologies effectively. Appreciate how search results are selected and ranked.
<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>• <i>Create a survey and present their results using programmes like MS Excel.</i></li> <li>• <i>Work collaboratively using Google Drive. Look at the programmes and compare to MS office.</i></li> <li>• <i>Use Google Drive programmes to create a presentation linked to a class topic in teams. This could be done like a Dragon's Den pitch and people vote for the best idea.</i></li> <li>• <i>Use Google Drive programmes to input data and create graphs. Explore which graphs best display the information. Create a document reasoning why you selected a specific graph model use of screenshots to support reasoning.</i></li> <li>• <i>Create a video linked to class topic.</i></li> </ul> <p><b>Vocabulary:</b>            Technology, organise, store, retrieve, open, save, document, insert, text, text box, edit, video links, smart, laptop, I-pad, MS Office, Word, PowerPoint, Excel, Publisher, software, digital, systems, content, analysing, evaluating, Google Drive, data, screen shots,</p>	<ul style="list-style-type: none"> <li>• <i>Use search engines to research a project.</i></li> <li>• <i>Investigate a variety of search engines type in the same word/ phrase and look at the top hits. Are they the same? Why/ why not?</i></li> <li>• <i>Discussion point- How do we decide which search engine to use?</i></li> <li>• <i>Recap on key words and create lists of good key words for topics.</i></li> </ul> <p><b>Vocabulary:</b>            Search engine, technology, key words, search function, hits,</p>
<b>Resources/online</b>	Laptops, i-pads, Google Drive	Laptops, I-pads

## Year 6

Skill Strand	Computer Science		
	Problem Solving	Programming	Logical Reasoning
<b>Skills</b>	<p>Design, write and debug programs that accomplish specific goals.</p> <p>Controlling or simulating physical systems.</p> <p>Solve problems by decomposing them into smaller parts</p>	<p>Use sequence, selection and repetition in programs; work with variables.</p> <p>Work with various forms of input and output</p>	<p>Use logical reasoning to explain how some simple algorithms work.</p> <p>Use logical reasoning to detect and correct errors in algorithms and programs.</p> <p>Understand computer networks including the internet.</p> <p>Understand how networks can provide multiple services, such as the world wide web.</p>
<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>• <i>Create and develop an App.</i></li> <li>• <i>Develop an app's user interface.</i></li> <li>• <i>Create a pitch for their App using presentation software focus on elements like slide transitions.</i></li> <li>• <i>Test if the app works as expected and record any errors / bugs</i></li> <li>• <i>Rectify any bugs within the program, in addition to correcting any spelling mistakes etc</i></li> </ul> <p><b>Vocabulary:</b>                      Alorithm, sequence, instructions, move, position, design, program, rules, write, debug, Scratch, Kodu, Apps, analyse</p>	<ul style="list-style-type: none"> <li>• <i>Use the Microbits- cross curricular links e.g make music or a guitar using Javascript blocks.</i></li> <li>• <i>Doctor Who sonic screwdriver- design, pitch ideas, edit and improve designs, make it.</i></li> </ul> <p><b>Vocabulary:</b>                      Create, debug, program, repetition, sequence, code, edit, Scratch, variables, instructions, input/output, microbits, javascript,</p>	<ul style="list-style-type: none"> <li>• <i>Discuss different services provided by the Internet (WWW, email, instant messaging, etc) and how they work</i></li> <li>• <i>Watch a video describing how data, in the form of packets, travels across the Internet - <a href="https://youtu.be/ewrBaIT_eBM">https://youtu.be/ewrBaIT_eBM</a></i></li> <li>• <i>View a Prezi showing how packets travel from a home network to a website - <a href="http://bit.ly/1S0KDVy">http://bit.ly/1S0KDVy</a> Pupils will discuss how a packet might reach China</i></li> <li>• <i>View the network components within school, such as a switch, content filter and a router and discuss their functions</i></li> <li>• <i>Play the packet game and simulate passing messages across a network - <a href="http://code-it.co.uk/netintsearch">http://code-it.co.uk/netintsearch</a></i></li> </ul> <p><b>Vocabulary:</b>                      Prediction, programme, logic, behaviour, logic, errors, networks, internet, WWW, HTML, reasoning, bugs, email, instant messaging, data, packets, switch, content filter, router</p>

<b>Resources/online</b>	Makey Makey sets, Lego WeDo sets, Microbits, Laptops, I-pads	Makey Makey sets, Lego WeDo sets, Microbits, Laptops, I-pads <a href="https://makecode.microbit.org/projects/guitar">https://makecode.microbit.org/projects/guitar</a> <a href="https://make.techwillsaveus.com/bbc-microbit/activities/sonic-microbit-screwdriver">https://make.techwillsaveus.com/bbc-microbit/activities/sonic-microbit-screwdriver</a>	Laptops, I-pads
<b>Skill Strand</b>	<b>Digital Literacy</b>		
	<b>E-Safety</b>		
<b>Skills</b>	Use technology safely, respectfully and responsibly. Recognise acceptable/ unacceptable behaviour. Know a range of ways to report concerns and inappropriate behaviour. Be discerning in evaluating digital content. Understand the opportunities networks offer for communication and collaboration		
<b>Lesson ideas</b>	<ul style="list-style-type: none"> <li>• <i>Debate topic linked to acceptable/ unacceptable behaviour online.</i></li> <li>• <i>Look at CEOP videos and discuss safe technology use.</i></li> <li>• <i>What is digital citizenship? Discussion points how to be a good digital citizen.</i></li> <li>• <i>Digital health- Discussion points could include themes linked to digital health e.g. insomnia. Opportunities to share their ideas and opinions this could be via emails, posters, a persuasive letter etc.</i></li> </ul> <p><b>Vocabulary:</b> Technology, safety, personal information, private, website, safesearch, images, responsibly, acceptable/unacceptable behaviour, concerns, evaluating, online, fake news, CEOP, copyright, password strengths, digital content, digital citizenship, digital health</p>		
<b>Resources/online</b>	Laptops, I-pads, CEOP, NSPCC		
<b>Skill Strand</b>	<b>Information Technology</b>		
	<b>Creating Content</b>		<b>Searching</b>
<b>Skills</b>	Select, use and combine a variety of software (including internet services) on a range of digital devices. Design and create a range of programs, systems and content that accomplish given goals. Collecting, analysing, evaluating and presenting data and information.	Use search technologies effectively. Appreciate how search results are selected and ranked.	

<p><b>Lesson ideas</b></p>	<ul style="list-style-type: none"> <li>• Create a survey and present their results using Google Drive programmes. Make own decisions about graph style to present their findings. (Link to a meaningful project).</li> <li>• Use the chat feature to collaborate with teacher in real time.</li> <li>• Recap basic functions for formatting, font size, colour etc.</li> <li>• Introduce functions like adding, subtracting, multiplying and dividing.</li> <li>• Create a multimedia presentation linked to a topic e.g. WW2.</li> <li>• Create an App.</li> </ul> <p><b>Vocabulary:</b> Technology, organise, store, retrieve, open, save, document, insert, text, text box, edit, video links, smart, laptop, I-pad, MS Office, Word, PowerPoint, Excel, Publisher, software, digital, systems, content, analysing, evaluating, Google Drive, data, screen shots, chat, formatting,</p>	<ul style="list-style-type: none"> <li>• Use a variety of search engines. Recap on key words and the importance of them for searching.</li> <li>• Explore search engines with a specific focus on rank pages based on the number and quality of in-bound links.</li> <li>• Teach ways to refine searches.</li> <li>• The child can demonstrate some awareness of the Page Rank algorithm, explaining that the quality of a page is determined largely on the basis of the number and quality of links pointing to that page in the engine's cached copy of the web, and that quality is itself determined recursively</li> <li>• This could link to your topic/ SITE project.</li> <li>• Discussions are needed so children can determine ways to check the validity of the information they find in search engines.</li> </ul> <p><b>Vocabulary:</b> Search engine, technology, key words, search function, hits,</p>
<p><b>Resources/online</b></p>	<p>Laptops, i-pads, Google Drive, App development software e.g. AppInventor</p>	<p>Laptops, I-pads</p>