



**Computing Progression of Skills 2021-2022**

	Autumn 1	Autumn 2a (3 WEEKS) Autumn	Autumn 2b (4 WEEKS) Autumn	Spring 1a (4 WEEKS)	Spring 1b (2WEEKS)	Spring 2	Summer 1	Summer 2
Theme	It's all Magic (Fairytale/ Traditional story focus)	Crash! Bang!	Winter Wonderland	Breaking News!	Chinese New Year Festival	Down on the Farm	Climate Change!	When I grow up!

EYFS								
Computing Events				8 <sup>th</sup> Feb – Internet Safety Day				
Key Vocab								Algorithm, instructions, set of rules, sequencing, program.
Teaching Topics								<p><b>Understand what algorithms are.</b></p> <p>Barefoot resources:</p> <ul style="list-style-type: none"> <li>- Lego building algorithm.</li> </ul> <p>I can say what an algorithm is.</p>



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								<p>I can verbally say clear instructions for someone else to follow.</p> <p>I can write a basic algorithm.</p> <p>I can change my algorithm with adult support.</p>
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Year 1								
Computing Events				8 <sup>th</sup> Feb – Internet Safety Day				
Key Vocab	Algorithm, instructions, set of rules, sequencing, program, decomposition	Algorithm, instructions, set of rules, sequencing, program, programming, decomposition, perseverance, bugs, errors,	Program, debugging, problem, computational thinking, coding, problem solving	Programming, tinkering, collaborating, Program, algorithm, set of rules. Debugging, bug, perseverance, logic, algorithms.	Programming, logic, algorithms, tinkering, collaborating, Program, algorithm, set of rules, Debugging, bug, perseverance,	Logic, programming, tinkering, computational thinking, debugging	Rules, health, well-being, lifestyle, technology, positive, negative, engaged, support, features, data.	Online, internet, reputation, protection, information, support, identity, difficulties, search engines.
Teaching Topics	<b>Understand what algorithms are.</b>  Barefoot resources: - Lego building algorithm.	<b>Understand how algorithms are implemented as programs on digital devices.</b>	<b>Understand that programs execute by following precise and unambiguous instructions</b>	<b>Create and debug simple programs</b>  Barefoot resources: - Bee-bots	<b>Create and debug simple programs</b>  Use the program Scratch Jr to help with this topic	<b>Use logical reasoning to predict the behaviour of simple programs</b>  Barefoot resources:	<b>Health, well-being, and lifestyle</b>  I can identify rules that help keep us safe and healthy in	<b>Online reputations and managing online information.</b>  I can explain how I represent myself in



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Theme	It's all Magic (Fairytale/ Traditional story focus)	Crash! Bang!	Winter Wonderland	Breaking News!	Chinese New Year Festival	Down on the Farm	Climate Change!	When I grow up!

	<ul style="list-style-type: none"> <li>- Crazy character algorithm.</li> <li>- Sharing sweet algorithm.</li> </ul> <p>I can say what an algorithm is.</p> <p>I can write an algorithm.</p> <p>I can create clear instructions for someone else to follow.</p>	<p><b>Barefoot resources:</b></p> <ul style="list-style-type: none"> <li>- Bee-bots</li> </ul> <p>I can create a sequence of instructions.</p> <p>I can write an algorithm.</p> <p>I can program a floor robot to move to a specific point.</p> <p>I can explain that a bug is</p>	<p><b>Use the program Scratch Jr to help with this topic</b></p> <p>I can explain what computational thinking is.</p> <p>I can explain what programming is.</p> <p>I can identify what the problem is with my code</p>	<ul style="list-style-type: none"> <li>- Scratch tinkering activity.</li> <li>- Pizza pickle scratch debugging</li> <li>- Bee-bots</li> <li>- River crossing.</li> </ul> <p>I can use algorithms confidently.</p> <p>I can explain that tinkering is when we try something new and discover what it does.</p>	<p>I can confidently write an algorithm.</p> <p>I can persevere when something has gone wrong.</p> <p>I can explore different ways to solve the problem with my algorithm.</p> <p>I can debug a program</p>	<ul style="list-style-type: none"> <li>- World map logic activity.</li> </ul> <p>I can explain what logical reasoning is.</p> <p>I can predict what a program will do.</p> <p>I can explain why I think a program will act in this way.</p> <p>I can identify the sequence</p>	<p>and beyond the home when using technology.</p> <p>I can give some examples of ways to stay fit and healthy.</p> <p>I can explain why spending too much time use technology can sometimes</p>	<p>different ways online.</p> <p>I can explain ways in which and why I might change my identity depending on what I am doing online (avatar)</p> <p>I can identify ways that I put information on the internet.</p> <p>I can recognise that I need to be careful before I</p>
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Theme	It's all Magic (Fairytale/ Traditional story focus)	Crash! Bang!	Winter Wonderland	Breaking News!	Chinese New Year Festival	Down on the Farm	Climate Change!	When I grow up!

<p>I can use an algorithm accurately.</p> <p>I am able to improve my algorithm with support from an adult.</p> <p>I can explain that decomposition is a breakdown of tasks into smaller manageable chunks.</p>	<p>an error in my algorithm code.</p> <p>I can confidently debug errors in a program.</p>	<p>and think of ways to fix it.</p> <p>I can independently think of ways to solve my problem.</p> <p>I can identify ways to program a device (bee-bot or Scratch Jr)</p> <p>I can reflect on whether my solution has worked.</p>	<p>I can explain that collaborating means working with a group to achieve the best result.</p> <p>I can explore Scratch Jr for myself.</p> <p>I can gain confidence in editing my algorithm on Scratch Jr.</p> <p>I can begin to make predictions</p>	<p>I can say what a program will do.</p> <p>I can explain what the bug was and how I will fix it.</p> <p>I can begin to make predictions about what my program will do</p> <p>I can explore Scratch Jr with</p>	<p>of steps that helps the program run.</p> <p>I can test my commands to see if my predictions are correct. Then I can independently make changes to the algorithm to ensure the program runs smoothly.</p>	<p>have a negative impact on me.</p> <p>I can provide examples of activities where it is easy to spend a lot of time engaged in technology (games, films, videos, apps)</p>	<p>share any information online.</p> <p>I know who I should ask if I am not sure if I should put something online.</p> <p>I can describe what is appropriate to say and do on online platforms (opinions, likes, shares, forwards)</p>
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				<p>about what my program will do.</p> <p>I can confidently write an algorithm.</p> <p>I can program and debug a Bee-Bot to follow my algorithm.</p> <p>I can predict what will happen when the Bee-Bot uses my algorithm.</p>	<p>increasing confidence.</p>		<p>I can explain how I might recognise that I need support to control my use of technology and who might provide support for this.</p> <p>I can identify features and things online that might negatively impact my</p>	<p>I can identify and demonstrate actions to support others who are experiencing difficulties online.</p> <p>I can talk about how to use the internet to find out information.</p> <p>I can give examples of how to find information (voice, search engines)</p>
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				<p>I can persevere when something has gone wrong.</p> <p>I can explore different ways to solve the problem with my algorithm.</p> <p>I can debug a program</p> <p>I can say what a program will do.</p> <p>I can explain what the bug was and how I will fix it.</p>			<p>well-being (instant replying, negative images/ text online, messaging)</p> <p>I can demonstrate ways to protect and manage data on my devices (find my phone/ipod)</p>	<p>I can explain what autocomplete is and how to choose the best suggestion.</p> <p>I can explain the difference between a belief, opinion, and fact.</p>
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Year 2								
Computing Events				8 <sup>th</sup> Feb – Internet Safety Day				
Key Vocab	Algorithm, instructions, set of rules, sequencing, program, decomposition	Algorithm, instructions, set of rules, sequencing, program, programming, decomposition, perseverance, bugs, errors,	Program, debugging, problem, computational thinking, coding, problem solving	Programming, tinkering, collaborating, Program, algorithm, set of rules. Debugging, bug, perseverance, logic, algorithms.	Programming, logic, algorithms, tinkering, collaborating, Program, algorithm, set of rules, Debugging, bug, perseverance,	Logic, programming, tinkering, computational thinking, debugging	Rules, health, well-being, lifestyle, technology, positive, negative, engaged, support, features, data.	Online, internet, reputation, protection, information, support, identity, difficulties, search engines.
Teaching Topics	<b>Understand what algorithms are.</b>  Barefoot resources: - Lego building algorithm.	<b>Understand how algorithms are implemented as programs on digital devices.</b>	<b>Understand that programs execute by following precise and unambiguous instructions</b>	<b>Create and debug simple programs</b>  Barefoot resources: - Bee-bots	<b>Create and debug simple programs</b>  Use the program Scratch Jr to help with this topic	<b>Use logical reasoning to predict the behaviour of simple programs</b>  Barefoot resources:	<b>Health, well-being, and lifestyle</b>  I can identify rules that help keep us safe and healthy in	<b>Online reputations and managing online information.</b>  I can explain how I represent myself in





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	<ul style="list-style-type: none"> <li>- Crazy character algorithm.</li> <li>- Sharing sweet algorithm.</li> </ul> <p>I can confidently say what an algorithm is.</p> <p>I can write a clear algorithm.</p> <p>I can create clear instructions for someone else to follow.</p>	<p><b>Barefoot resources:</b></p> <ul style="list-style-type: none"> <li>- Bee-bots</li> </ul> <p>I can create a sequence of instructions.</p> <p>I can confidently write an algorithm.</p> <p>I can program a floor robot to move to a specific point.</p>	<p><b>Use the program Scratch Jr to help with this topic</b></p> <p>I can explain what computational thinking is.</p> <p>I can explain what programming is.</p> <p>I can identify what the problem is with my code</p>	<ul style="list-style-type: none"> <li>- Scratch tinkering activity.</li> <li>- Pizza pickle scratch debugging</li> <li>- Bee-bots</li> <li>- River crossing.</li> </ul> <p>I can use algorithms confidently.</p> <p>I can explain that tinkering is when we try something new and discover what it does.</p>	<p>I can confidently write an algorithm.</p> <p>I can persevere when something has gone wrong.</p> <p>I can explore different ways to solve the problem with my algorithm.</p>	<ul style="list-style-type: none"> <li>- World map logic activity.</li> </ul> <p>I can explain what logical reasoning is.</p> <p>I can confidently predict what a program will do.</p> <p>I can explain why I think a program will</p>	<p>and beyond the home when using technology.</p> <p>I can confidently give some examples of ways to stay fit and healthy.</p> <p>I can explain why spending too much time using technology can</p>	<p>different ways online.</p> <p>I can explain ways in which and why I might change my identity depending on what I am doing online (avatar)</p> <p>I can confidently identify ways that I put information on the internet.</p> <p>I can recognise that I need to be</p>
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Theme	It's all Magic (Fairytale/ Traditional story focus)	Crash! Bang!	Winter Wonderland	Breaking News!	Chinese New Year Festival	Down on the Farm	Climate Change!	When I grow up!

<p>I can use an algorithm accurately.</p> <p>I am able to improve my algorithm with support from an adult.</p> <p>I can explain that decomposition is a breakdown of tasks into smaller manageable chunks.</p>	<p>I can explain that a bug is an error in my algorithm code.</p> <p>I can confidently debug errors in a program independently.</p>	<p>and think of ways to fix it.</p> <p>I can independently think of ways to solve my problem.</p> <p>I can identify ways to program a device (bee-bot or Scratch Jr)</p> <p>I can reflect effectively on whether my</p>	<p>I can explain that collaborating means working with a group to achieve the best result.</p> <p>I can work collaboratively with my peers.</p> <p>I can explore Scratch Jr for myself.</p> <p>I have increasing confidence in editing my</p>	<p>I can debug a program independently.</p> <p>I can say what a program will do.</p> <p>With increasing confidence I can explain what the bug was and how I will fix it.</p> <p>I can make predictions about what</p>	<p>act in the way that it does.</p> <p>I can identify the sequence of steps that helps the program run.</p> <p>I can test my commands to see if my predictions are correct. Then I can independently make changes to the algorithm to ensure the</p>	<p>sometimes have a negative impact on me.</p> <p>I can provide examples of activities where it is easy to spend a lot of time engaged in technology (games, films, videos, apps)</p>	<p>careful before I share any information online.</p> <p>I know who I should ask if I am not sure if I should put something online.</p> <p>I can describe what is appropriate to say and do on online platforms (opinions, likes, shares, forwards)</p>
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			<p>solution has worked.</p>	<p>algorithm on Scratch Jr.</p> <p>I can make predictions about what my program will do.</p> <p>I can confidently write an algorithm.</p> <p>I can program and debug a floor robot to follow my algorithm.</p> <p>I can predict what will happen when the Bee-</p>	<p>my program will do.</p> <p>I can explore Scratch Jr independently with increasing confidence.</p>	<p>program runs smoothly.</p>	<p>I can explain how I might recognise that I need support to control my use of technology and who might provide support for this.</p> <p>I can identify features and things online that might negatively impact my</p>	<p>I can identify and demonstrate actions to support others who are experiencing difficulties online.</p> <p>I can talk about how to use the internet to find out information.</p> <p>I can give examples of how to find information (voice, search engines)</p>
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				<p>Bot/ floor robots uses my algorithm.</p> <p>I can persevere when something has gone wrong.</p> <p>I can explore different ways to solve the problem with my algorithm.</p> <p>I can debug a program.</p> <p>I can say what a program will do.</p>			<p>well-being (instant replying, negative images/ text online, messaging)</p> <p>I can demonstrate ways to protect and manage data on my devices (find my phone/ipod)</p>	<p>I can explain what autocomplete is and how to choose the best suggestion.</p> <p>I can explain the difference between a belief, opinion, and fact.</p>
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				I can explain what the bug was and how I will fix it.				
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Computing is to be taught as part of PPA  
(PPA = PSHE, Computing, PE)