

Computing
Year 1 and 2
Autumn 2

Topic Programming						
Rationale Children within Tilery enjoy the practical aspects of learning and seeing their instructions translate from a screen to something visual whether that be a functioning game/ animation or a BeeBot in the classroom we believe that this can inspire any future aspiring coders or animators we may have.						
NC Objective understand what algorithms are; how they are implemented as programs on digital devices use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs						
Links to other Subject/Topics (Year A)			Links to other Subject/Topics (Year B) Science – All Living things and their Habitats and Animals Including Humans. Geography – A Walk on the Wild Side (Continents and Maps). English – Character profiles. History – David Attenborough and Great Fire of London.			
Note that E Safety, although it is taught as a topic in computing it will be referred to throughout each lesson where computing is used.						
Inspiration for Aspiration Programmer, Games Designer, App Designer, IT Technician, Teacher.						
Key Content Year 1 <ul style="list-style-type: none"> How can I give commands such as straight forwards/backwards? What does a sequence look like when instructions are given? How can I give a set of instructions to be followed? 			Key Content Year 2 <ul style="list-style-type: none"> How can I give commands such as straight forwards/backwards? What does a sequence look like when instructions are given? How can I give a set of instructions to be followed? How can I give instructions to form a simple shape? How can I improve or change sequences to be more effective? 			
Concepts						
Programming	1	2	3	4	5	6
Beebots						
Scratch						
Purple Mash						
Skills and Knowledge EYFS <ul style="list-style-type: none"> Pupils learn to follow simple oral algorithms Pupils learn to spot simple patterns •Pupils sequence simple familiar tasks •I can use a mouse, touch screen or appropriate access 	Skills and Knowledge Year 1 <ul style="list-style-type: none"> Pupils learn to program a basic floor turtle such as a BeeBot to navigate increasingly complex routes and are able to debug their instructions when the turtle does not reach the intended destination 		Skills and Knowledge Year 2 <ul style="list-style-type: none"> Pupils learn to program a basic floor turtle such as a BeeBot to navigate increasingly complex routes and are able to debug their instructions when the turtle does not reach the intended destination 			

<p>device to target and select options on screen</p> <ul style="list-style-type: none"> • Pupils learn to input a simple sequence of commands to control a digital device with support (Bee Bot) 	<ul style="list-style-type: none"> • Pupils learn to program an onscreen app such as BeeBot or Kodable to complete a set task and are able to debug their instructions when the turtle does not reach the intended destination • Are able to debug their instructions when the turtle does not reach the intended destination • - Pupils learn to use a simple graphical programming language such as Logo, Scratch or Turtle to navigate around the screen 	<ul style="list-style-type: none"> • Pupils learn to program an onscreen app such as BeeBot or Kodable to complete a set task and are able to debug their instructions when the turtle does not reach the intended destination • Pupils use a more complex turtle with standard units to navigate increasingly complex routes, and are able to debug their instructions when the turtle does not reach the intended destination • - Pupils learn to use a simple graphical programming language such as Logo, Scratch or Turtle to navigate around the screen • Pupils create a 3D environment, using a graphical language such as Kodu. They link this to a story such as an island adventure
<p>EYFS Vocabulary</p>	<p>Year 1 Command, forwards, backwards, turn, sequence, instructions, follow, task.</p>	<p>Year 2 Commands, sequence, turn, instructions, follow, task, change, sequence of commands.</p>
<p>By the end of the topic <u>Year 1</u> children will: - Be able to demonstrate effective programming using basic floor turtles such as BeeBot. They exhibit the ability to debug their instructions effectively when the turtle does not reach the intended destination. Additionally, students showcase competence in programming on-screen apps like BeeBot or Scratch to accomplish specific tasks.</p>		<p>By the end of the topic <u>Year 2</u> children will: - Be able to demonstrate effective programming using basic floor turtles such as BeeBot. They exhibit the ability to debug their instructions effectively when the turtle does not reach the intended destination. Additionally, students showcase competence in programming on-screen apps like BeeBot or Scratch to accomplish specific tasks. Finally, children will be able to use taught skills in context with other learning, for example using scratch to code a journey from a famous explorer.</p>
<p>Assessment Ongoing teacher assessment throughout the unit and assessment of end product.</p> <p>Example Children to create a track for the Beebot to travel through and must use their coding knowledge to navigate this track.</p>		