


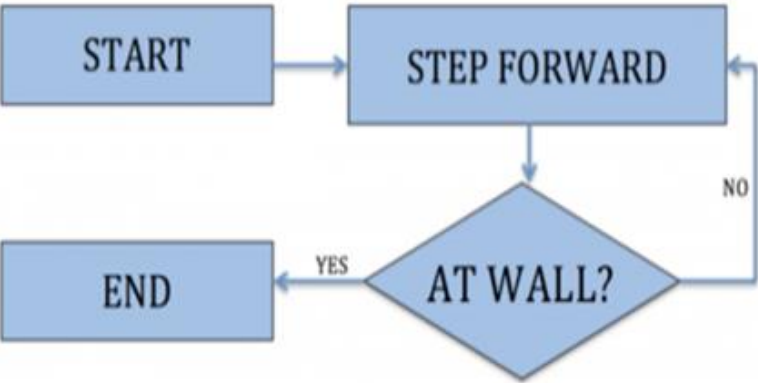









Prior Learning: instructions as algorithms, instructional language, understanding 'debug' as correcting mistakes in programming, programming a beebot, positional language

Facts	Vocabulary						
<p><b>1. What is an algorithm?</b></p> <p>An algorithm is a sequence of instructions or a set of rules that are followed to complete a task.</p> <p>The task can be anything, but clear instructions must be given for the task.</p>	<p><b>Decomposition-</b> Splitting the sequence of an algorithm into smaller parts.</p> <div style="border: 1px solid black; padding: 5px;"> <p><b>Computational Thinking Involves:</b></p> <p><b>1. Decomposition</b>                      Breaking a problem down into smaller parts. Each individual part is solved separately.  <b>Advantages:</b></p> <ol style="list-style-type: none"> <li>Makes a problem easier to solve.</li> <li>Different people can work on different parts of a problem.</li> <li>Parts of one program can be used in other programs.</li> </ol> </div>						
<p><b>2. What does an algorithm look like?</b></p> <p>A flowchart is used to show processes and decisions made in an algorithm, whilst the arrows are used to show the flow of the program.</p> <p><b>Processes</b> are shown as <b>squares</b> and are used when we are doing something.</p> <p><b>Decisions</b> are shown as a <b>diamond</b> and are used to represent when we are testing something.</p> <table border="1"> <tr> <td style="text-align: center;"></td> <td><i>Used for direction of data flow.</i></td> </tr> <tr> <td style="text-align: center;"></td> <td><i>Process- Something that happens.</i></td> </tr> <tr> <td style="text-align: center;"></td> <td><i>Decisions- yes or no</i></td> </tr> </table> <div style="text-align: center;">  <pre> graph TD     START[START] --&gt; STEP[STEP FORWARD]     STEP --&gt; WALL{AT WALL?}     WALL -- YES --&gt; END[END]     WALL -- NO --&gt; STEP                     </pre> </div>		<i>Used for direction of data flow.</i>		<i>Process- Something that happens.</i>		<i>Decisions- yes or no</i>	<p><b>Sequence-</b> A set of instructions that are followed in order.</p> <p><b>Input-</b> The way a computer receives data (keyboard, mouse, touchscreen).</p> <p><b>Input Devices of Computer</b></p> <div style="text-align: center;">  </div> <p><b>Selection-</b> A way to make a choice in a computer program (using if...then...else...).</p> <p><b>Simple program-</b> Instructions written in language (code) that a computer will understand.</p> <p><b>Debug-</b> To detect and correct the errors in a computer program.</p>
	<i>Used for direction of data flow.</i>						
	<i>Process- Something that happens.</i>						
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<p><b>Youtube</b>  <a href="https://www.youtube.com/watch?v=McM9YCeyt_Q">https://www.youtube.com/watch?v=McM9YCeyt_Q</a>                  What is an algorithm?</p>							

