






Subject: Computing		Year group: 5 Term: Summer 2		Title: Programming					
<div>What should I know?</div> <div><ul style="list-style-type: none">How to plan and write programs that accomplish specific goalsThat computers can collect data from various inputsWhat debugging is and how it can be used to achieve specific goalsThat planning/ evaluation is a vital part of designing programsWhat the terms sequence, repetition and selection mean and know how to use them in programsHow to use logical reasoning to detect/correct errors in programs</div> <div></div>		<div>Facts I will learn ...</div> <div><ul style="list-style-type: none">The meaning of the key terms:<ul style="list-style-type: none">selection.variables.decompositionThe meaning of logical reasoningThat programs can be represented in different formats including written and diagrammaticThe need for precision when creating sequences to ensure that the system or program is reliableThat there are often different ways to solve the same problem or taskTo begin to understand what a function is and how functions work in codeTo take a real-life situation , decompose it and think about the level of abstraction.</div>		<div>Key questions ...</div> <div><ul style="list-style-type: none">What is the meaning of decomposition?What is the meaning of selection?What are variables?Is there more than one way to solve this problem?What is logical reasoning and why is it important in programming?What does simulating a physical system mean?Describe how you would make a timer countdown and a score pad for a game.What does abstraction and decomposition mean?</div> <div></div>					
<div>Key Skills...</div> <div><ul style="list-style-type: none">To use repetition and selection in</div>		<div>Experiences that school will provide:</div> <div><ul style="list-style-type: none">The opportunity to take part in</div>		<table><tr><th>Key vocab</th><th>Definition</th></tr><tr><td>Selection</td><td>Selection is a decision or question.</td></tr></table>		Key vocab	Definition	Selection	Selection is a decision or question.
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<p>programs</p> <ul style="list-style-type: none">• To use variables in programs• To design and create programs using decomposition.• To design programs to accomplish specific tasks or goals• To use logical reasoning to develop systematic strategies that can be used to debug algorithms and programs• To design, test and refine programs to control robots or floor turtles taking account of purpose and needs	<p>both practical and computer based programming activities</p> 	<table><tr><td>Decomposition</td><td>Breaking a problem down into smaller pieces.</td></tr><tr><td>Diagrammatic</td><td>Of or in the form of a diagram.</td></tr><tr><td>Variables</td><td>A placeholder for a piece of information that can change.</td></tr><tr><td>Programming</td><td>The art of creating a program.</td></tr><tr><td>Selection</td><td>Selection is a decision command. When selection is used, a program will choose which bit of code to run depending on a condition</td></tr><tr><td>Abstraction</td><td>A way of decluttering and removing unnecessary details to get a program functioning</td></tr><tr><td>Concatenation</td><td>The action of linking a mixture of strings, variable values and numbers together in a series.</td></tr><tr><td>Function</td><td>A block or sequence of code that you can access when you need it, so you don't have to rewrite the code repeatedly. Instead, you simply 'call' the function each time you want it.</td></tr></table>		Decomposition	Breaking a problem down into smaller pieces.	Diagrammatic	Of or in the form of a diagram.	Variables	A placeholder for a piece of information that can change.	Programming	The art of creating a program.	Selection	Selection is a decision command. When selection is used, a program will choose which bit of code to run depending on a condition	Abstraction	A way of decluttering and removing unnecessary details to get a program functioning	Concatenation	The action of linking a mixture of strings, variable values and numbers together in a series.	Function	A block or sequence of code that you can access when you need it, so you don't have to rewrite the code repeatedly. Instead, you simply 'call' the function each time you want it.
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<p>Web links</p> <p>https://www.lego.com/en-gb/categories/coding-for-kids</p> <p>https://code.org/learn</p>	<p>Experiences that could be provided at home...</p> <ul style="list-style-type: none">• Enjoy online coding activities• Play simple logic and reasoning games																		