











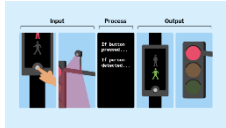


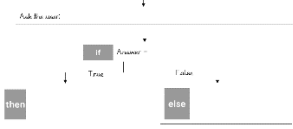

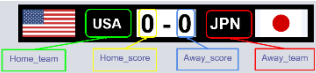



## COMPUTING: STICKY KNOWLEDGE MAP CYCLE B

	How does it work?	Mother Nature	Superheroes	Dungeons & Dragons	Clockwork	Double, double, toil & trouble
<b>Cycle B</b>	<ul style="list-style-type: none"> <li>Technology is made by people to help us in different ways.</li> <li>Desktop and laptop computers have similar main parts.</li> </ul>  <ul style="list-style-type: none"> <li>Objects can be moved by 'click and drag' using a mouse / touchpad.</li> <li>Information technology is explained as 'being a computer or something that has been made to work with a computer.'</li> <li>Devices work together but have different functions to do.</li> </ul>  <ul style="list-style-type: none"> <li>Rules &amp; choices help us use IT with respect, safely and responsibly.</li> <li>'Digital 5 a day' is a method of supporting well-being when using IT.</li> </ul> 	<ul style="list-style-type: none"> <li>Directional commands can be used to control a floor robot.</li> </ul>  <ul style="list-style-type: none"> <li>The floor robot moves forwards or backwards a fixed distance</li> <li>An algorithm can be written or represented using symbols or sketches. ***</li> </ul>  <ul style="list-style-type: none"> <li>A sequence of commands can be given before the floor robot moves. ****</li> <li>The order of the instructions effects the end result (outcome). ****</li> <li>Reading and stepping through the algorithm helps to predict the outcome / behaviour or debug errors.</li> </ul>	<ul style="list-style-type: none"> <li>Digital devices accept inputs and produces outputs.</li> </ul>  <ul style="list-style-type: none"> <li>A network is a group of interconnected computing devices</li> <li>Components within a network can include: - network switch, server, wireless access point and router.</li> <li>The World Wide Web is one part of the internet.</li> </ul>  <ul style="list-style-type: none"> <li>The internet is a global system of interconnected computer networks.</li> <li>The World Wide Web is made up of webpages, web sites and other types of media.</li> <li>I need to think about the content I share or reshare on online.</li> </ul> 	<ul style="list-style-type: none"> <li>Repetition can be seen in everyday sequences</li> </ul>  <ul style="list-style-type: none"> <li>There are different types of loops (indefinite / forever, count controlled)</li> <li>Commands within an infinite loop are repeated over and over again, without an end point.</li> <li>In Scratch, this is called the <b>repeat forever</b> block</li> </ul>  <ul style="list-style-type: none"> <li>The order of commands can affect the output</li> <li>Task, Design, Code, Run is a process of programming. It is also called levels of abstraction.</li> </ul> 	<ul style="list-style-type: none"> <li>A system is a set of interconnected parts that work together.</li> </ul>  <ul style="list-style-type: none"> <li>IT systems use IPO (input, process, output)</li> </ul>  <ul style="list-style-type: none"> <li>Web crawlers are used to create an index of the WWW.</li> </ul>  <ul style="list-style-type: none"> <li>Rules are used to rank search results.</li> <li>Connected computers transfer data between IT systems and networks.</li> </ul>  <ul style="list-style-type: none"> <li>Data is transferred in packets.</li> <li>Protocols (agreed methods) are used to transfer data.</li> <li>Communication and collaboration using the internet can be public or private.</li> </ul>	<ul style="list-style-type: none"> <li>Decision points in programs are known as 'selection'</li> <li>Selection can be used to direct the flow of a program.</li> </ul>   <ul style="list-style-type: none"> <li>When something is 'variable' it is changeable.</li> <li>Real-world examples of a variable can include score / count down timer at a football match</li> </ul>  <ul style="list-style-type: none"> <li>Previous values of a variable cannot be accessed once it is updated.</li> <li>An infinite loop is used to continually check if the condition is true.</li> </ul> 

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Vr 5

Based on NCCE units, images : [ncce.io/tcc](https://ncce.io/tcc) and <https://pixabay.com>