



## Subject- Computing



### Threshold Concepts and Milestones

Threshold Concept		Year 5	Content
<b>Code</b> This concept involves developing an understanding of instructions, logic and sequences.	<b>Motion</b>	<ul style="list-style-type: none"> <li>• Set IF conditions for movements.</li> </ul>	<ul style="list-style-type: none"> <li>• Creating branching databases that allow for searches and refinements to criteria.</li> <li>• Creating algorithms that allow for random number generation or simulate a particular curved movement in Espresso Coding.</li> </ul>
	<b>Looks</b>		
	<b>Sound</b>	<ul style="list-style-type: none"> <li>• Upload sounds from a file and edit them.</li> </ul>	<ul style="list-style-type: none"> <li>• Use Audacity sound editor to manipulate and change a recorded sound made by the pupils.</li> <li>• Use Drumbit app to create a rhythm and then add reverberation.</li> </ul>
	<b>Draw</b>	<ul style="list-style-type: none"> <li>• Combine the use of pens with movement.</li> </ul>	<ul style="list-style-type: none"> <li>• Use logo to create commands for "pen up" and "pen down" to create separate shapes within one sequence of instructions.</li> </ul>
	<b>Events</b>	<ul style="list-style-type: none"> <li>• Set events to control other events.</li> </ul>	<ul style="list-style-type: none"> <li>• Children create racing apps in Espresso Coding that includes Algorithms for changes in speed and control (simulated oil slicks or ice on the track).</li> </ul>
	<b>Control</b>	<ul style="list-style-type: none"> <li>• Use IF THEN conditions to control events or objects.</li> </ul>	<ul style="list-style-type: none"> <li>• Children create racing apps in Espresso Coding that includes algorithms for changes in speed and control (simulated oil slicks or ice on the track).</li> <li>• Children design and create a 3D game in Purple Mash using DIY3D app.</li> </ul>

	<b>Sensing</b>	<ul style="list-style-type: none"> <li>• Use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events or actions.</li> </ul>	
	<b>Variables and lists</b>	<ul style="list-style-type: none"> <li>• Use lists to create a set of variables.</li> </ul>	<ul style="list-style-type: none"> <li>• Using 2Question to create branching databases.</li> </ul>
	<b>Operators</b>	<ul style="list-style-type: none"> <li>• Use the Boolean operators  () &lt; ()  () = ()  () &gt; ()  ()and()  ()or()  Not()  to define conditions.</li> <li>• Use the Reporter operators  () + ()  () - ()  () * ()  () / ()  to perform calculations.  Pick Random () to ()  Join () ()  Letter () of ()  Length of ()  () Mod () This reports the remainder after a division calculation  Round ()  () of ().</li> </ul>	<ul style="list-style-type: none"> <li>• Reviewing search results when combined with various Boolean operators</li> </ul>

<p><b>Connect</b> This concept involves developing an understanding of how to safely connect with others.</p>		<ul style="list-style-type: none"> <li>• Collaborate with others online on sites approved and moderated by teachers.</li> <li>• Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems.</li> <li>• Understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express written permission, from the copyright holder.</li> <li>• Understand the effect of online comments and show responsibility and sensitivity when online.</li> <li>• Understand how simple networks are set up and used.</li> </ul>	<ul style="list-style-type: none"> <li>• Using 2Blog to create banks of research and ideas for topic based work/homework</li> <li>• Take part in class room debates and discussions about various aspects of safety.</li> <li>• Actively take part and respond to comments made on posts created and shared by the pupils. Reflect on the influence this may have had.</li> <li>• Research how networks connect different devices via servers.</li> </ul>
<p><b>Communicate</b> This concept involves using apps to communicate one's ideas.</p>		<ul style="list-style-type: none"> <li>• Choose the most suitable applications and devices for the purposes of communication.</li> <li>• Use many of the advanced features in order to create high quality, professional or efficient communications.</li> </ul>	<ul style="list-style-type: none"> <li>• Consider target audiences and how to reach them.</li> <li>• Use 2Connect to make online, shared and opinionated resources.</li> <li>• Using the class blog in purplemash</li> </ul>
<p><b>Collect</b> This concept involves developing an understanding of databases and their uses.</p>		<ul style="list-style-type: none"> <li>• Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner.</li> </ul>	<ul style="list-style-type: none"> <li>• Using 2graph and 2calculate to report and present data related to science and topic research</li> </ul>