

The Sultan's School Year 5 Medium Term Curriculum plan for ICT - Information for parents

Block	Unit	Key Targets and Learning Objectives	Activities	Key vocabulary
<p><b>Internet Safety and Digital Citizenship will be taught over the course of the year through short focused tasks, videos, peer assessment/tutoring, discussions...</b></p> <p><b>Students in Year 5 will be enrolled in Computer Science Fundamentals Course E at <a href="http://www.code.org">www.code.org</a>. In this course students will Design, write and debug programs that accomplish specific goals. This online course will start in Block 1 and conclude mid-way through Block 5.</b></p> <p><b>Other short, single lesson activities which do not appear on the MTP may take place during any block dependant on school events and national holidays...</b></p>				
1	<b>Graphical modelling</b> Digital Literacy	<ul style="list-style-type: none"> <li>Use object based tools to create and manipulate shapes in <i>PowerPoint</i>.</li> <li>Understand some of the differences between using object based tools and a painting program.</li> <li>Use object based tools to create a scaled graphical model in <i>Publisher</i>.</li> </ul>	<p><b>Graphical Modelling</b></p> <ul style="list-style-type: none"> <li>Students will recreate artwork by Henry Matisse, first using paint software, and then object based software.</li> <li>They will compare and contrast the differences.</li> <li>Students will create a graphical model of a classroom, to scale using all techniques taught to date.</li> </ul>	Drawing/Paint/ Object based graphics packages Manipulate Model Insert Fill Shapes Layers Scale
2	<b>Programming</b> Computer Science	<ul style="list-style-type: none"> <li>Write an algorithm or produce a flowchart to solve a problem or accomplish a specific goal.</li> <li>Program a device to wait for something to happen or be controlled by a sensor using Flowol software.</li> <li>Evaluate a program, identify mistakes and debug accordingly.</li> </ul>	<p><b>Go With the Flow Pt.1</b></p> <ul style="list-style-type: none"> <li>Students will be introduced to Flowol 4 and examine algorithms and flowcharts in greater depth.</li> <li>Students create algorithms and flowcharts to operate lights at a zebra crossing and test them virtually.</li> <li>Students create algorithms and flowcharts to operate traffic lights on a bridge and test them virtually.</li> </ul>	Flowchart Switch on/off Wait Repeat If Then Else Until

3	<p><b>Spreadsheets</b> Information Technology</p> <p><b>Theory</b> Information Technology Digital Literacy</p>	<ul style="list-style-type: none"> <li>• Enter data into a cell and make cells look more visually appealing.</li> <li>• Use spreadsheets to explore what happens when variables such as cost are changed.</li> <li>• Understand the difference between the net and the web and how search engines work.</li> </ul>	<p><b><u>Let's work it Out</u></b> In <i>Microsoft Excel</i> students will create a times table calculator and manipulate pre-prepared spreadsheets by adding formulae and changing variables to solve "The Sweet Shop" and other problems.</p> <p><b><u>Webs and Nets</u></b></p> <ul style="list-style-type: none"> <li>• Students will participate in an interactive online quest to improve their knowledge of the internet and how it works.</li> <li>• Students will watch videos about the internet and how searches and sorts work.</li> </ul>	<p>Slide/Slideshow Transition Animation Spreadsheet Cell Column Row Formula Sum Min/max Calculate Model</p>
4	<p><b>Programming</b> Computer Science</p>	<ul style="list-style-type: none"> <li>• Understand how IT devices are used in our everyday lives outside school.</li> <li>• Search the web and save appropriate images to a specified folder</li> <li>• Create a multimedia slideshow to achieve a specific goal using <i>PowerPoint</i></li> </ul>	<p><b><u>IT... Above and Beyond</u></b></p> <ul style="list-style-type: none"> <li>• Students will inquire into the nature of IT devices beyond school.</li> <li>• Students will create a slideshow in <i>PowerPoint</i> to present their findings.</li> </ul>	<p>Slide/Slideshow Transition Animation Image</p>
5	<p><b>Programming</b> Computer Science</p>	<ul style="list-style-type: none"> <li>• Create and edit a computer program in Scratch.</li> <li>• Use loops in a program so that commands are repeated.</li> <li>• Evaluate a program, identify mistakes and debug accordingly.</li> </ul>	<p><b><u>Scratch</u></b></p> <ul style="list-style-type: none"> <li>• Students will take a brief look at the history of video games and the gaming industry.</li> <li>• They will then attempt to create and improve a Pong style game using a set of pre-prepared instructions.</li> <li>• For extension students may attempt Flappy Bird, Golf or Shark Attack games.</li> </ul>	<p>Algorithm Program Loop If/then/else Command Block Sprite Background Backdrop</p>