**The Sultan's School Year 6 Medium Term Curriculum plan for ICT - Information for parents**

| Block | Unit | Key Targets and Learning Objectives | Activities | Key vocabulary |
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| **Internet Safety and Digital Citizenship will be taught over the course of the year through short focused tasks, videos, peer assessment/tutoring, discussions...**<br><br>**Students in Year 6 will be enrolled in Computer Science Fundamentals Course F at www.code.org. 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.**<br><br>**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…** | | | | |
| 1 | **Budget Burgers**<br>Digital Literacy | • Enter and replicate simple mathematical formulae in Excel<br>• Understand data types and validation in order to analyse and change data to predict results<br>• Create and format graphs to represent data in a more eye-catching way using *Excel* | **Budget Burgers**<br>• Students will use simple mathematical formulae such as +, -, *, / and SUM to calculate and explore costings for a family meal.<br>(*All spreadsheets must contain correct formulae, be well formatted and have graphs/charts to present data visually.*) | Bar / Pie Chart<br>Calculate<br>Cell / Cell Format<br>Chart Wizard<br>Data<br>Fill Down/Series<br>Formula<br>Model<br>Prediction<br>Replication<br>X/Y-Axis |
| 2 | **Mindstorms!**<br>Computer Science | • Build a robotic Driving Base using Lego EV3 Mindstorms.<br>• Recreate a program to move a driving base in straight and curved lines using seconds, degrees, and rotations.<br>• Investigate different ways of controlling a Driving Base moving in straight and curved lines. | **Mindstorms!**<br>• Students will use Lego EV3 Mindstorms to build a robot from on-screen instructions.<br>• Students will use PC's to program their robots to move a specific distance and follow a given path. | Driving Base<br>Move Steering block<br>Move Tank block<br>Parameters<br>Degrees<br>Rotations<br>Seconds<br>Delay<br>Equation<br>Formulae |

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| 3 | **F1 Ethara - STEM Programming**<br>Computer Science | • Create and edit a computer program in Scratch<br>• Use loops in a program so that commands are repeated<br>• Evaluate a program, identify mistakes and debug accordingly | **Scratch**<br>• Students continue to expand their programming skills in Scratch 2.0 by designing a reaction time game to help prepare for F1 Ethara.<br>• Students create livery for F1 Ethara racing cars using PowerPoint and Cameo cutting machine | Algorithm<br>Program<br>Loop<br>Conditional<br>If/then/else<br>Variable<br>Command<br>Block<br>Sprite<br>Background<br>Backdrop |
| 4 | **F1 Ethara - - STEM Spreadsheets**<br>Data Handling | • Create a database using Google Forms/Google Sheets<br>• Use sort and filter to analyse data<br>• Create and format graphs in Excel | **Google Docs**<br>• Students enter reaction, race and total times from F1 Ethara Race Day into Sheets using online Form<br>• Discussion on benefits of real time collaboration<br>• Students convert Google Sheet to .xlxs<br><br>**Excel**<br>• Students conduct basic data validation and verification<br>• Students perform simple and advanced queries on data generated in Google using Sort & Filter.<br>• Students create a graph from query showing Top 10… of their choice | Bar Chart<br>Data Validation<br>Data Verification<br>Fill Down/Series<br>Formula<br>Column Heading<br>Filter<br>Sort |
| 5 | **Webpage Design**<br>Information Technology<br>Computer Science | • Understand and use simple HTML and CSS to create a webpage<br>• Understand how data is sent over the web and how search engines work.<br>• Evaluate a program, identify mistakes and debug accordingly | **Code Avengers**<br>• Students will participate in an online introduction to HTML<br>• Students will create a simple HTML webpage in NotePad++ reflecting on their primary years.<br>• Students will explore how the internet and WWW work and how information travels and is stored. | HTML<br>CSS<br>Navbar<br>Hyperlink<br>Tags<br>Search Engine<br>Search Criteria<br>Web Browser |