



## MAGHULL HIGH SCHOOL – CURRICULUM MAP

HALF TERM 1.1 SEPT - OCT	Week 1 - 3	Week 4	Week 5	Week 6	Week 7
TOPIC (S)	1.1 Structure and function of the processor	Dedicated programming skills	1.2 Types of processors	Dedicated programming skills	1.3 Input, output and storage
Knowledge & Skills development	What are the components of a CPU, and what do they do? How does a CPU work? How is the performance of a CPU determined? How can the speed of a processor be increased further? How is the performance of a CPU determined?	Gain experience in practical programming using TIME model	What are the differences between the RISC and CISC architectures? What are the different characteristics of CPUs vs GPUs, and what else besides graphics can GPUs be used for? How does having multiple cores affect the speed of processing?	Gain experience in practical programming using TIME model	How are input, output and storage devices used in typical applications of Computer Science? How do different storage devices compare in terms of cost, capacity and speed? How do different storage devices compare in terms of cost, capacity and speed? What are the characteristics of ROM and RAM? What are the benefits and drawbacks of virtual storage?
Assessment / Feedback Opportunities	Classroom activity - Class Discussion - Questioning pupils – verbal feedback – exam questions	Classroom activity - Class Discussion - Questioning pupils – verbal feedback	Classroom activity - Class Discussion - Questioning pupils – verbal feedback – exam questions	Classroom activity - Class Discussion - Questioning pupils – verbal feedback	Classroom activity - Class Discussion - Questioning pupils – verbal feedback – exam questions
Cultural Capital	Problem solving Impact of technology on the world				
SMSC / Promoting British Values (Democracy, Liberty, Rule of Law, Tolerance & Respect)	<ul style="list-style-type: none"> <li>Listening to others</li> <li>Responding suitable in discussions</li> <li>Taking part in group activities</li> </ul>				

<b>Reading opportunities</b>	Key word Identification Decomposition and Abstraction Digital Design and Computer Architecture		
<b>Key Vocabulary</b>	ALU, Control unit, Register, PC, ACC, MAR, MDR, CIR, Busses, Data bus, Address bus, Control bus, Fetch-decode-execute, CPU, Clock speed, Cores, Cache, Pipelining, Von Neumann Architecture, Harvard architecture, Cotemporary architecture	CISC, RISC, GPU, Multicore system, Parallel processor system	Input device, Output device, Storage device, Magnetic storage, Flash storage, Optical storage, RAM, ROM, Virtual storage
<b>Digital Literacy</b>	Use of technology Understanding of how technology works		
<b>Careers</b>	Computer Scientist – programmer – R&D – Processor coding		