



MAGHULL HIGH SCHOOL – CURRICULUM MAP

HALF TERM 3.2 Jun - Jul	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5	Lesson 6
TOPIC (S)	How do we represent data	How do computers represent text using binary	Why binary digits are used in computing systems	How numbers can be represented using binary	How do we measure size of files in computer systems	Review of lessons taught
Knowledge & Skills development	Describe examples of representations Representations are used to store, communicate, and process information Provide examples of how different representations are appropriate for different tasks	Measure the length of a representation as the number of symbols that it contains Provide examples of how symbols are carried on physical media	Explain what binary digits (bits) are, in terms of familiar symbols such as digits or letters Measure the size or length of a sequence of bits as the number of binary digits that it contains	Describe how natural numbers are represented as sequences of binary digits Convert a decimal number to binary and vice versa	Convert between different units and multiples of representation size Provide examples of the different ways that binary digits are physically represented in digital devices, including electricity, magnetism, light, and even holes in paper	Demonstration of skills learnt in the unit of study
Assessment / Feedback Opportunities	Classroom activity Class Discussion Questioning pupils Verbal Feedback					Written assessment
Cultural Capital	Written representation through time How technology can represent data					
SMSC / Promoting British Values (Democracy, Liberty, Rule of Law, Tolerance & Respect)	<ul style="list-style-type: none"> Listening to others Understanding of technology to support additional needs Responding suitable in discussions 					
Reading opportunities	<ul style="list-style-type: none"> Instructional reading Key word identification 					
Key Vocabulary	Representations, symbols, storage, communication, processing, characters, coding (encoding/decoding), coding scheme, representation size or length, physical medium, binary digits, digital systems, representation size, units, multiples, prefixes					
Digital Literacy	Use of technology Digital research methods Use of range of software					
Careers	Data scientist; Software engineer, Data engineer, Software architect					

