Topic	Learning Objectives	Key Vocabulary	Learning Sequence	Linked Learning	Home Learning
Data representation	Convert numbers between the different number systems Perform simple arithmetic using non-decimal number systems Use standard units to express file sizes Calculate the size of any digital image Calculate the size of any digital sound	Decimal Binary Hexadecimal Bit, Nibbles, Bytes Kb, Mb, Gb, Tb Binary shift Overflow Colour depth Pixels Sample rate Frequency	Introduction to computer science Capacity of data Number systems (decimal, binary, hexadecimal) Number system arithmetic Using algorithm & expressions to calculate digital image file Using algorithm & expressions to calculate digital sound file Learning supported through implementation of solutions using coding and algorithms	Computation thinking (paper 1) Written Assessment (paper 2) NEA	This will be set on a by need basis. In order to consolidate learning and fluency of subject specific language.
Data Compression	Define lossy and losslees compression Compare compression techniques Compress strings using lossy compression	RLE Huffman Coding Lossy Lossless	Why do we need compression? How to use compression algorithms? Outcome of compression algorithms and how data can be reconstructed to its original source	Computation thinking (paper 1) Written Assessment (paper 2) NEA	This will be set on a by need basis. In order to consolidate learning and fluency of subject specific language.