Unit 3: Data Representation

Definitions	Key knowledge	Skills
	• binary - all data and instructions • decimal • hexadecimal - why used • binary shifts - why	• convert between bin, dec and hex • write numbers up to 255 in each • binary addition (3 numbers) • do binary shifts
Bit [1] Byte [1]	• kilo, mega, giga, terrabytes	• convert between these
Character set [1] Character code [1]	• ASCII code • Unicode - advantages	• work out a character code based on a known code
Bitmap [1] Pixel [1] Colour depth [1]	• how bitmaps are represented using pixels • how colour depth works • image file sizes (w x h x CD)	• calculate bitmap sizes in bits and Bytes • convert binary data to bitmap and vice versa
Analogue sound [1] Sampling [1/2] Sampling rate [1] Sample resolution [1]	• how sound can be sampled to create a digital representation • sound file sizes	• calculate sound file sizes