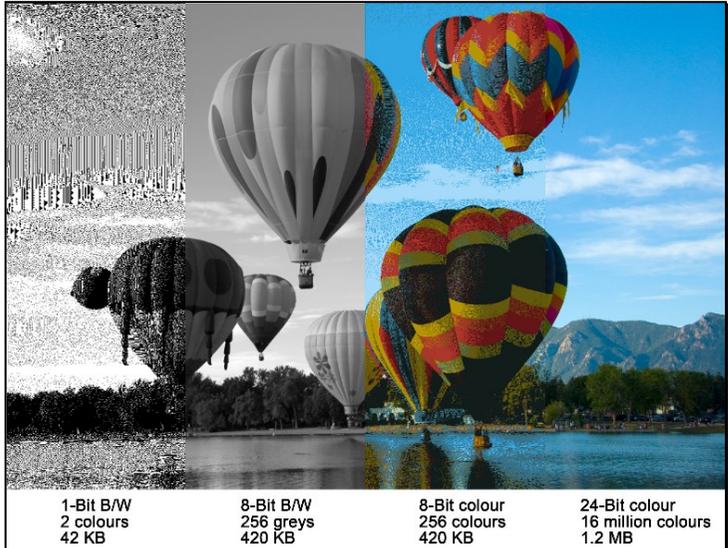


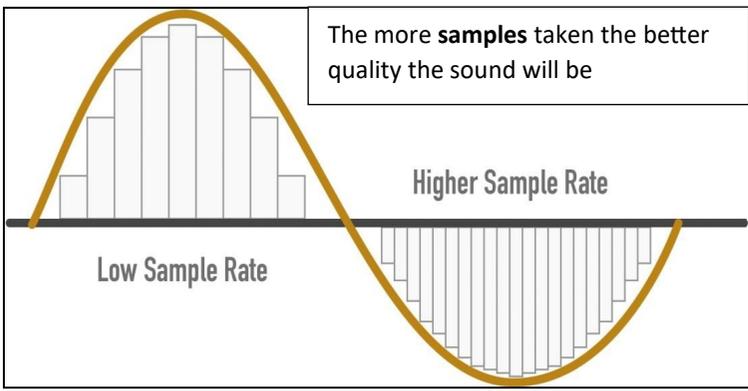
Converting binary to denary

128	64	32	16	8	4	2	1
↓	↓	↓	↓	↓	↓	↓	↓
1	0	0	1	1	0	1	1
128 + 0 + 0 + 16 + 8 + 0 + 2 + 1							
= 155							

Decimal	Binary	Hexadecimal
0	0000	0
1	0001	1
2	0010	2
3	0011	3
4	0100	4
5	0101	5
6	0110	6
7	0111	7
8	1000	8
9	1001	9
10	1010	A
11	1011	B
12	1100	C
13	1101	D
14	1110	E
15	1111	F



Character	Any single letter, number, space, punctuation mark, or symbol that can be typed on a computer.
Bit	Binary digit – 1 or 0
Nibble	4 binary digits e.g 0110 or 0001
Byte	8 binary digits, e.g. 01101100
Binary	Language used by computers to store and process data – base 2
Denary/Decimal	Number system used by humans 0-9 – base 10
Hexadecimal	Shortened version of binary. Number system using 16 characters – 0-9 and A-F – base 16
Character Set	Defined list of characters recognised by the computer
ASCII	Character set using 7 bits – covers the most common used English letters, numbers and symbols. Extended ASCII uses 8 bits.
Unicode	Character set using up to 32 bits – represents all possible characters across every language.
Bitmap	An image made up from a series of coloured dots (pixels)
Vector	An image made up of lines and shapes
Resolution	The number of pixels within a fixed area.
Colour depth	The number of bits used for each pixel – more bits = more colours
Sample rate/frequency	The number of samples taken per second.
Sample size	The amount of bits that are available for each sample.



Helpful websites:

Youtube – Binary conversion

BBC Bitesize

<https://www.computerscience.gcse.guru>

<https://games.penjee.com/binary-bonanza/>