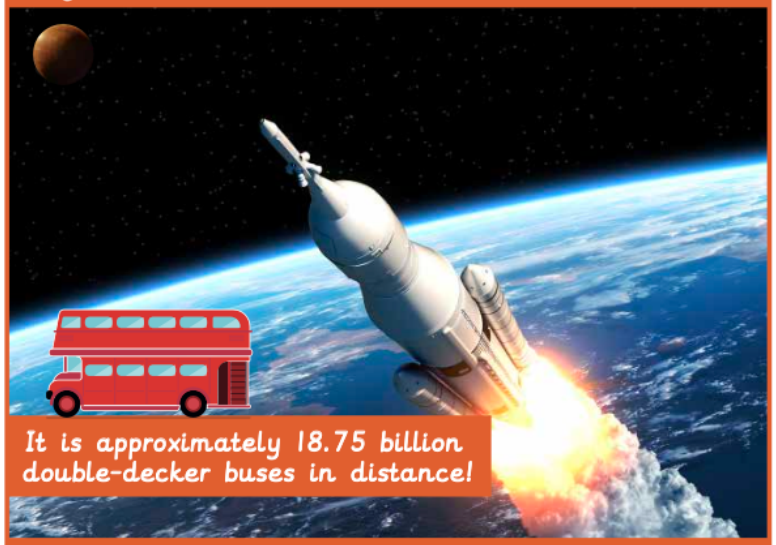
Computing Knowledge Organiser - Mars Rover 1

binary – a system computers use to store information using only 0 and 1.
Boolean – a system with two possible values: true and false.
data – information used for a particular purpose or investigation.
data size – how much space information takes up when it is stored on a computer.
distance – the amount of space between two places or objects.
input – information sent to a computer by an input device such as a keyboard or mouse for processing.
Mars Rover – a robotic vehicle that explores Mars and sends information back to Earth.
output – information sent from a computer to an output device, such as a screen, printer or speakers
planet – a large natural object that orbits around a star.
processing – when a computer works on information, for example by sorting data or doing calculations.
scientist – a person who studies within the fields of science, such as physics, biology and chemistry.
signal – a message sent from one place to another, often using waves or electricity.
store – to keep information in a computer's memory so it can be used later.
transmit – to send information from one place to another.



The Mars Rover travelled 225,000,000 km (approx) to get to Mars and it took almost seven months.



Binary

When a robot thinks independently, it needs to be able to calculate a range of data. All decisions carried out by a robot, or any computer, are done in binary – including the Mars Rover.

Binary value	Decimal value
0 0 0 0	0 zero
0 0 0 1	1 one
0 0 1 0	2 two
0 0 1 1	3 three
0 1 0 0	4 four
0 1 0 1	5 five
0 1 1 0	6 six
0 1 1 1	7 seven
1 0 0 0	8 eight
1 0 0 1	9 nine
1 0 1 0	10 ten

