Binary

Key Words

Base 2 – A number system in which there are two separate integers that can be used to make all numbers. This is also called the binary system.

Bit A single 0 or 1 is called a bit- This word comes from 'Binary Digit'.

Switch- An act of changing to or adopting one thing in place of another.

Base 10- A number system in which there are ten separate integers that can be used to make all numbers. This is also called the decimal and the denary system.

Transistor- A transistor is a tiny switch that is activated by the electronic signals it receives.

Machine code- The code that signals to a computer which transistors should be on or off. Machine code is written in binary.

Variable- A variable is used in programming to keep track of things that can change while a program is running. A variable must have a name. The value of the variable is the information to store.

Key learning:

- To examine how whole numbers are used as the basis for representing all types of data in digital systems.
- To recognise that digital systems represent all types of data using number codes that ultimately are patterns of 1s and 0s (called binary digits, which is why they are called digital systems).
- To understand that binary represents numbers using 1s and 0s and these represent the on and off electrical states respectively in hardware and robotics.

Key questions

How does binary relate to the programs that you use or create?

How does binary relate to computer memory?

How would you write the numbers 0 to 10 in binary?

Key Resources

Key Images