Understanding Coding

What is code?

Code is the language that computers use. To tell a computer to do something, a program must be written using code to tell it exactly what to do and how to do it. It's what allows us to create apps, websites, and computer programs. In fact it runs the world around us, from your smartphone or tablet to traffic lights, connected cars and beyond.

There are many different programming languages you can use to code. A few examples are:

○ Python
○ Java
○ BASIC
○ Scratch
○ C++

These languages are made up of a series of statements, which form the instructions which tell the computer what to do.

Learning to Code

Coding and computing skills are relevant to just about any job you can imagine.

When you learn to code you're putting valuable problem solving skills into practice. You're presented with a problem and by thinking logically and creatively you think about how to break it down into smaller, more manageable chunks to tackle it. This is a great transferable skill for future careers, and any job that requires logical reasoning, teamwork and creativity will value coding skills.

There's a huge demand for skilled tech professionals in the workplace. Even if you have never imagined yourself as a web developer or software engineer, having coding skills can lead to a wide variety of careers from fashion and football to journalism or finance.

Where to find out more:

There's a huge amount of resources available for free online to help you find out more about coding and computing. Have a look at the list on the next page for a few ideas.

Online Resources

BBC Bitesize KS3 Introduction to Programming:
http://www.bbc.co.uk/education/guides/zts8d2p/revision/1

code.org

https://www.kodable.com/

https://www.codecademy.com/learn

Coding clubs

https://www.codeclub.org.uk/

https://coderdojo.com/

http://www.firetechcamp.com/

Apps and software

http://www.kodugamelab.com/

http://www.gethopscotch.com/

http://www.scratchjr.org/

https://beta.webmaker.org/#/

Build your own computer/robot

https://www.raspberrypi.org/

http://www.kano.me/

http://www.lego.com/en-us/mindstorms

TV

http://www.bbc.co.uk/cbbc/shows/appsolute-genius

http://www.bbc.co.uk/cbbc/shows/technobabble