### Introduction

What is coding?

Coding, sometimes called computer programming, is how we **communicate with computers.** 

Code tells a computer what actions to take and writing code is like creating a set of instructions.





### Where is code used?

Code is everywhere!





The applications of computer code can be found everywhere in the modern world. On the street, in the workplace, at home, in your local grocery stores. Even in your pocket! **Everywhere!** 











### The Benefits of Code

Why learn how to code?



#### **Creativity!**

Coding fosters creativity! People can harness their coding skills to make animations, websites and video games!



Learning code teaches computational thinking, helping to break down complicated tasks into smaller steps. This can help improve logic skills, aiding in subjects like maths.



Learning to program is full of fun problems that challenge you to think outside the box! It encourages teamwork, independent research and creativity!

#### **Employability**

All of the skills you learn through coding will later make you more desirable in the workplace. And digital literacy is a necessity in this digital age. Coding, logical thinkers and problem solvers are valuable skills in any field of work.

#### The Future is Code!

Code is the key to many new industries - nowadays, everything is online. Not only that, but upcoming technologies such as AI and Robotics would not be possible without code!

#### ty <u>Teamwork</u>

Although the stereotype of a programmer is someone hunched over their computer by themselves for hours on end, coding can be very social! You'll often work in teams and might even compete in hackathons with your coding skills.



#### Resilience

The ability to cope with failure is a vital life skill. Through coding, everyone learns that failure is a stepping stone, not an ending. It encourages resilience and determination against solving problems.







### The Future is Code!

#### Where is code going?

New technology is rapidly being developed every day – all impossible without computer code. Here are some examples of ground-breaking technologies!



















## **Artificial Intelligence**





## **Technology and Clean Energy**





### **Quantum Computing**





## **5G**





## Using AI to treat cancer





### **Retail Robotics**





# Augmented, Virtual and Mixed Reality





### Construction





## Saving the Environment

