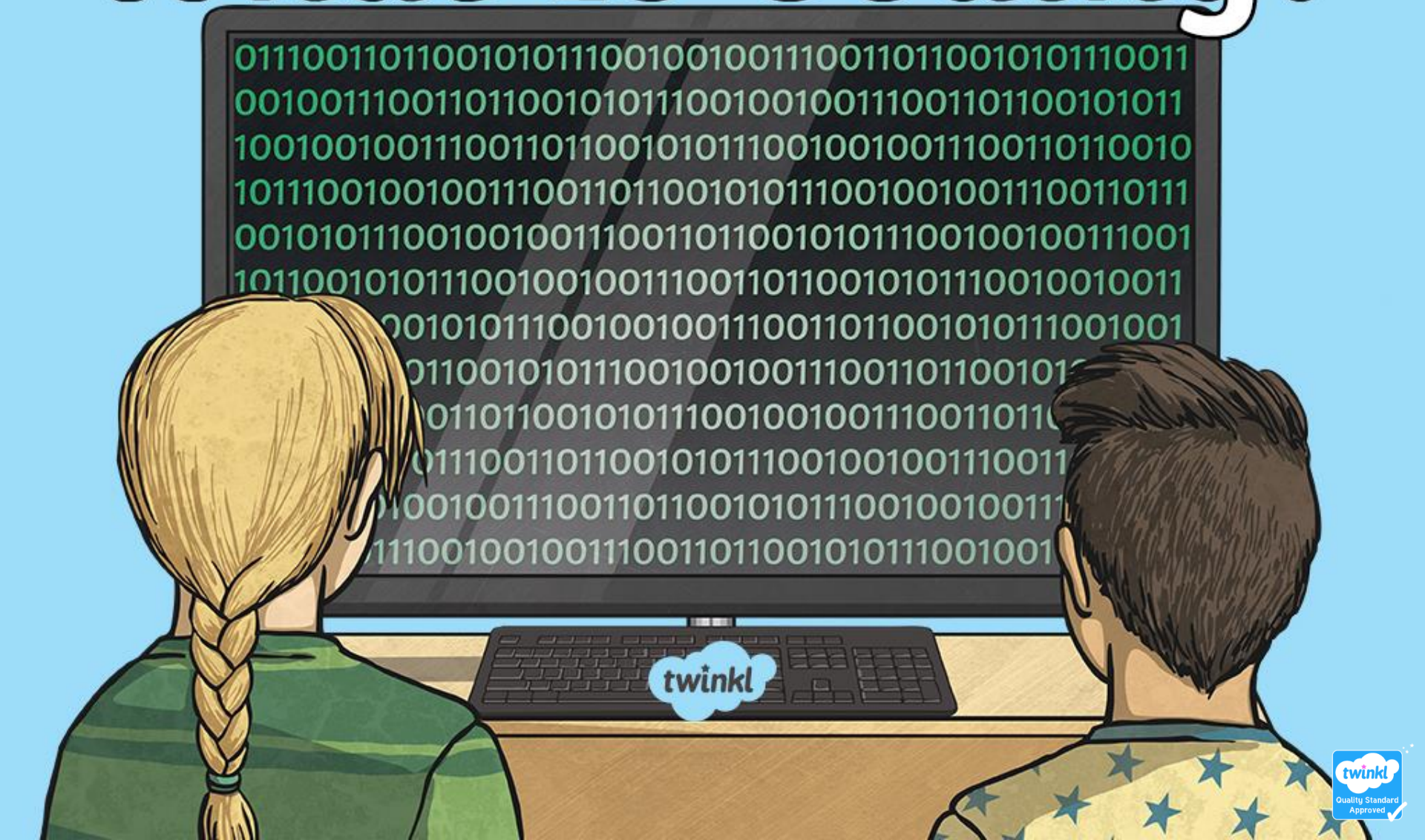
What Is Coding?



twinkl
Quality Standard Approved

Learning Objective

To understand what coding is and why it is important.

Success Criteria

- I can explain what coding is and give some examples.
- I can write a simple algorithm.
- I know why coding is important.



twinkl.com

What Does Coding Mean?

Coding is what makes **computer** software, apps and websites work!

Behind every animation or activity we use on **computers**, there is a set of instructions which tell the computer what to do.



Just like any instructions, coding has to be clear and straightforward. Really good **coding** is almost unnoticeable because it makes the website or app work so well!

Try giving straightforward, clear instructions on how to brush your teeth or make a sandwich.

twinkl.com

What Does Code Look Like?

There are a number of different languages used to write code. They are all based on English but the language is simplified to make it really clear and direct.

Computers use complicated mathematical symbols put together to make a sequence of instructions called an **algorithm**.

Grace Hopper, a pioneering computer scientist, developed the use of code written in English to make it easier to write code. She developed something called a **compiler** which translates the English code into machine code.



See what simple html code looks like!

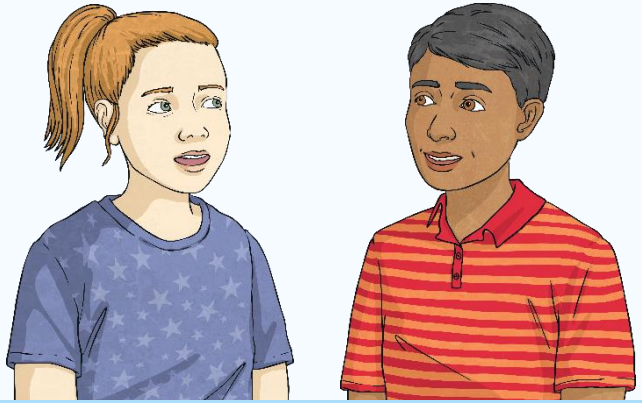
twinkl.com

Coding Languages

There are thousands of different **coding** languages in use today.

Different languages are used for different purposes. HTML is used for websites, Ladder Logic is used in manufacturing and C++ is a general purpose **programming** language.

There are common terms in these languages such as:
If … then … else
For … next
Repeat – until
But the way these terms are organised looks different in each language.



Have a go at writing some simple algorithms using Blockly!

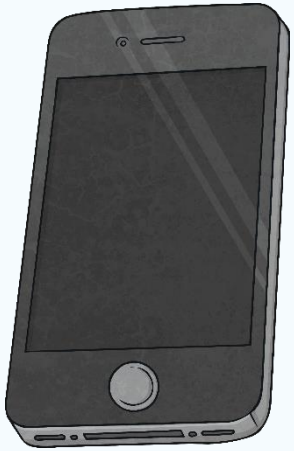
twinkl.com

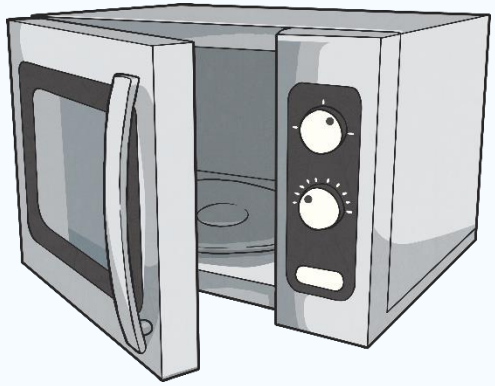
Why Does Coding Matter?

Coding makes computers work!

Computers are involved in almost every part of our lives today. From microwaves and washing machines to smartphones and supercomputers, all these things rely on code in order to function. Without these machines, our lives would be very different.

Not enough people are able to write code to keep up with the demand for technology today. It is important that more computer scientists are trained to keep up with demand.





How many different uses of code can you think of?

twinkl.com

Hour of Code

In 2013, Computer Science Education Week introduced the Hour of Code to introduce school children to **coding**.

The first Hour of Code reached 15 million students and now 10% of the students around the world have tried the Hour of Code.

The Hour of Code is a free online tutorial in **coding**. Schools and organisations can host an Hour of Code or you can log in and have a go at home.



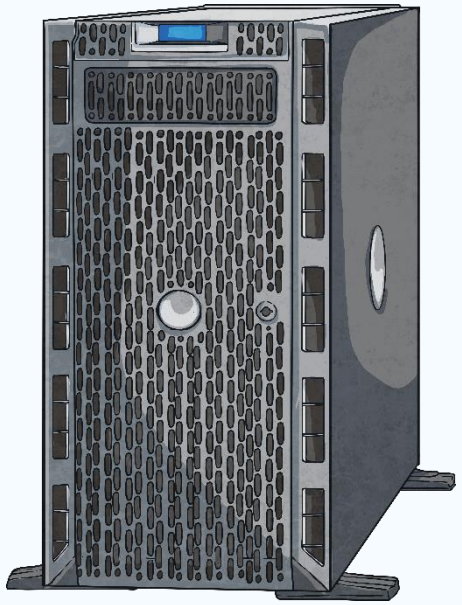
Choose from one of the different tutorials
and join in the Hour of Code this year!

twinkl.com

Who Can Code?

Anyone can learn to code. There are lots of free online tutorials and programs to start from and like any language, once you start learning, you can quickly become fluent.

Some of the more popular websites and apps began as projects and pastimes for students, including Facebook which now has over 2 billion active users.



twinkl.com

Glossary

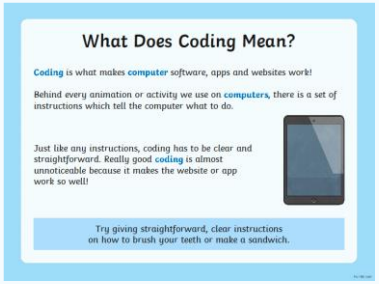
Algorithm – a sequence of rules to be followed in calculations.

Coding – the language used to write computer programs.

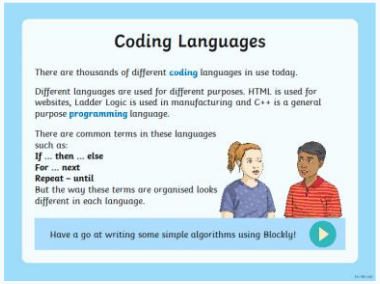
Compiler – software which translates English code into machine code.

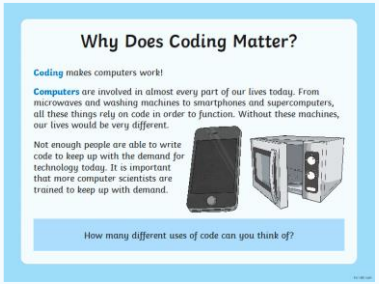
Computer – an electronic device which receives data and performs operations.

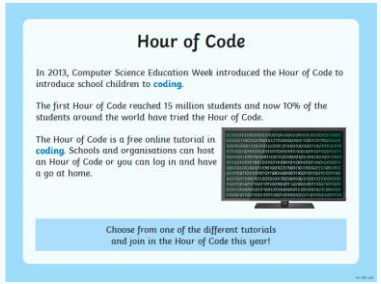
Programming – the process of writing computer programs.

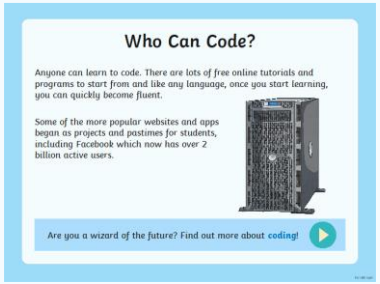












twinkl.com

Learning Objective

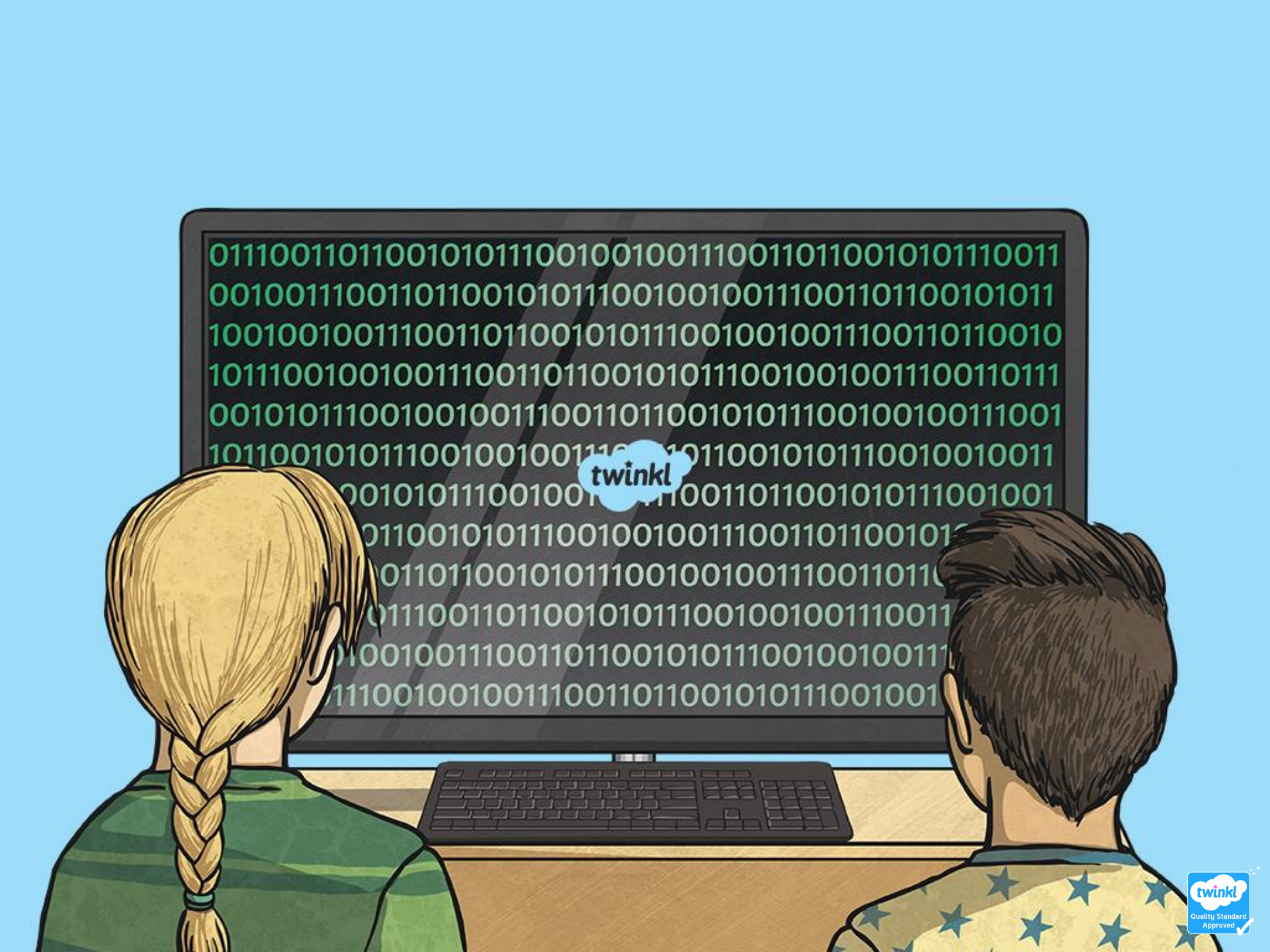
To understand what coding is and why it is important.

Success Criteria

- I can explain what coding is and give some examples.
- I can write a simple algorithm.
- I know why coding is important.



twinkl.com


twinkl
twinkl
Quality Standard
Approved