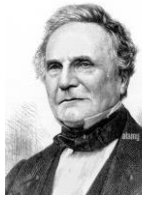




Prior learning: In Reception, children will have learnt how to interact with a range of digital resources and understand how to achieve effects such as sound and movement.

Meet some brilliant computer scientists...



Charles Babbage was a 19th Century English inventor, mathematician and engineer. He invented the computer.



Ada Lovelace was an English mathematician who is known for work she did with Charles Babbage on his idea for a general purpose computer in the 1840s. She is considered to be the world's first computer programmer.

1. How do computer scientists identify an outcome from a set of instructions?

We will learn how to follow a set of instructions to make a tower of multilink



Brilliant computer scientists know the importance of following a set of instructions in the correct order to achieve the right outcome.



2. How do computer scientists identify and solve errors within instructions?

We will learn about what errors are and how errors in instructions change the outcome by following a set of instructions to fill a water bottle.



Brilliant computer scientists know how to identify and solve errors within a set of instructions.



3. How do computer scientists follow a set of simple instructions?

We will learn how to give and follow verbal instructions using clear and accurate directional language e.g. left, right, forwards, backwards, turn to move a mascot around the room.



Brilliant computer scientists know how to give accurate instructions using directional language

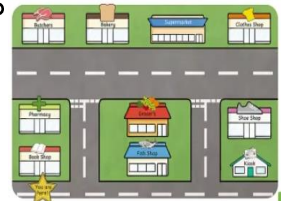


4. How do computer scientists debug simple instructions?

We will learn how to identify and edit ('debug') an error in a set of instructions using the directional language previously learnt using a Bear and a floor map.



Brilliant computer scientists know how to edit ('debug') a set of instructions.



5. How do computer scientists create a sequence of instructions?

We will create our own maps (e.g. treasure map, street map etc.) and write a set of simple instructions. These will include several obstacles and a finishing point.



Brilliant computer scientists know how to write a set of accurate instructions for others to follow.



6. How do computer scientists understand and follow a set of sequenced instructions?

We will be swapping our own maps and instructions with each other and evaluating how successful our directions were.



Brilliant computer scientists know how to evaluate the success of their sequenced instructions and identify if anything needs 'debugging'



Key vocabulary: Glossary

Algorithm / code	A set of instructions to follow	Debug	Solving, fixing, repairing a problem
Sequence	When things are in order	Error	A mistake