



Respect, Believe, Achieve

Year 5

Text-based Programming

Computer Science



Key Words

Javascript	A programming language to program interactive elements, such as objects you can drag around.
Logo	A programming language to program an on-screen turtle to move or draw.
Function	In Javascript, this is used to program what the object can be used for. e.g a button that can be tapped or character that can be dragged around.
Loops or repetition	Using a loop or repetition in your program can make your program simpler. It can also make an object follow an instruction more than once. For example, programming a robot to draw a circle 3 times.
Variables	Something that changes in your program, such as a score or the speed of a car.

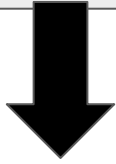
What do I already know?

- I can break a problem up into smaller parts
- I can put programming commands into a sequence to achieve a specific outcome
- I keep testing my programme and can recognise when I need to debug it
- I can use repeat commands I can set up conditional events with 'if statements'
- I can use a variable to keep score
- I can adjust a variable using events and reset it.
- I can use loops to make code more efficient.
- I can describe the algorithm that I will need for a simple task
- I can detect a problem in an algorithm that may result in unsuccessful programming

Our Learning Steps

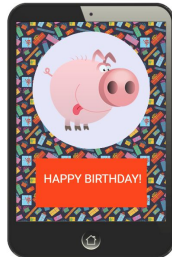
1. Write number variables

Learn how to use the CodeMonkey website to write text-based commands to complete a series of levels by changing the variable (something that changes, such as a number) to program the car to get to the monkey.

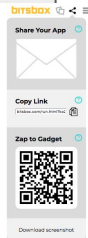


2. Write text-based commands with accuracy, including fill effects, stamps and functions.

Learn how to use the BitsBox website to program simple apps using text-based programming. It is really important you type the text correct to make your apps work.



```
1 fill('birthday')
2 circle(384,358,300,'lavender')
3 box(150,700,250,'orange red')
4 stamp('img',300,300,dance())
5 text('HAPPY BIRTHDAY!',140,350,00,'white')
6
7
8
```



3. Digital art

Write text-based commands to program digital art.



4. Write text commands/functions to program keyboard inputs in a game.

Learn how to house text commands/functions to program keyboard inputs to control a sprite in a game.



5. Program a turtle in Logo.

Use the lessons in Turtle Academy to program a turtle to move around the screen, draw shapes and more.

