

## Computing – Summer 1 - Year 4

### Introduction to programming with Scratch

This term's eSafety focus is understanding and respecting digital rights and responsibilities.

Children will be introduced to Scratch and begin with basic programming.

#### In this unit children will:

- **eSafety** - further develop a positive attitude towards technology and internet use.

#### Scratch - Learn how to:

- Open Scratch and write code that:
  - animates letters & sprites by making them move, change colour and size and make noise.
  - changes the "costume" of a sprite so that it appears to move.
- Write code for a 'chasing' game.
- Write code for a story in which the backdrop changes and characters (sprites) move and respond to each other.
- Write code that programmes a character to fly.

#### Prior Learning

**eSafety is taught in every year group.**

**Year 1** – Scratch Jnr

**Year 1** – Programming Toys

**Year 2** - Intro to programming / Beebots

**Year 3** - Programming with Logo – Part 1

**Year 4** Programming with Logo – Part 2

**Year 4** Animation Skills / Pivot

#### Cross Curricular Links to Scratch

Maths - direction, movement and position, geometry

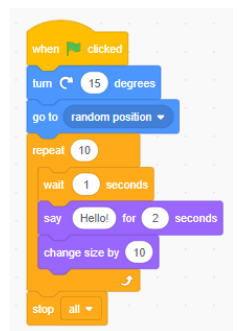
#### Key Vocabulary

**Scratch** – it is a block-based visual programming language

**sprite**- are the images on a Scratch computer program screen. Every Scratch program is made up of sprites

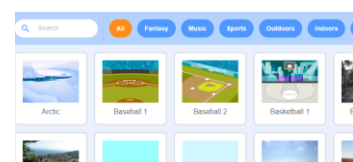
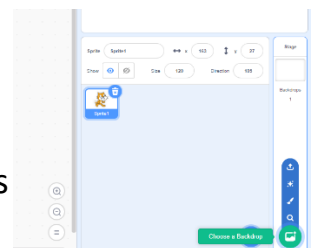
**blocks** - Blocks are puzzle-piece shapes that are used to create code in Scratch.

**block of code** – more than one block linked together



**animate / animation** - to make something move

**backdrop Sprites** appear on a stage  
Different backdrops can be added.



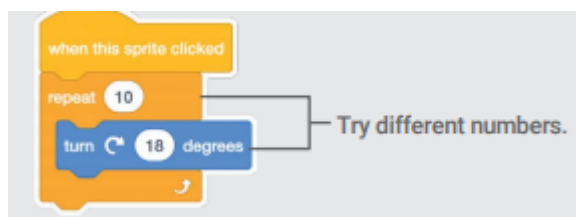
## Key Knowledge



I can add a **sprite** and a **backdrop**.



I know that to animate the sprite I need to give an instruction, and that I use **blocks of code** to do it.



I know that different blocks of code do different jobs.

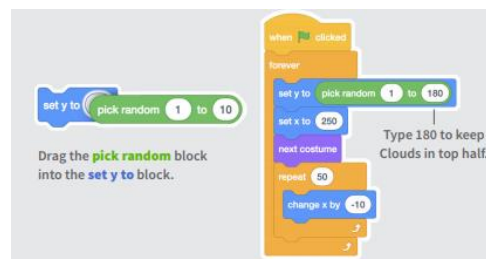


I know that I can add blocks from different **menus** to build up a series of instructions, including sound.

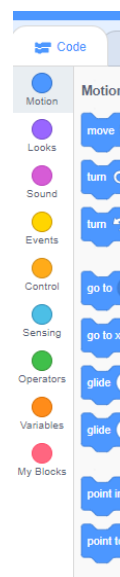
The information in the white spaces can be changed – just click on it and type.



I can use the keys to make the sprite move.



Operators (light green blocks) make your programme more exciting!



On the left hand side of the screen is the menu in which all the different types of code can be found.

Click on each one to discover the different blocks of code – can find how to add speech?

## Key Questions

- How can you change the appearance of your sprite?
- Can you make the sprite rotate 360 degrees?
- How can you use the 'repeat' block to make music?
- Do you know how to save your project?