# Coley Primary School – Knowledge Organiser

| SUBJECT FOCUS: | Computing – coding | YEAR | 3 |
|---|---|---|---|

**Prior learning:** algorithms, creating and following precise and unambiguous instructions; creating and debugging simple programs; Beebots (Y1); Beebot app and Scratch Junior (Y2) – movement, sound, blocks sprites, repeat and speak controls

## Key knowledge

### Simple input sequences

**Real-life examples**

We use **sequences** every day, for example when we tidy up for home time:

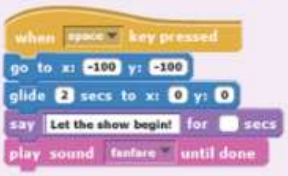
- Pack away
- Tuck your chairs in
- Get your coat and bag
- Line up at the door

Sometimes the **order of a sequence** matters. We need to do certain things before others, like when we are making a cup of tea:

1. Boil the water
2. Put the tea bag in the cup
3. Pour the boiling water into the cup
4. Stir
5. Remove tea bag
6. Add milk

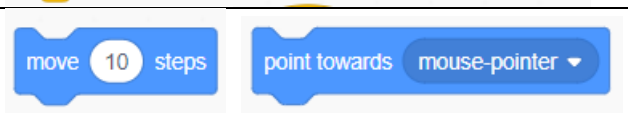
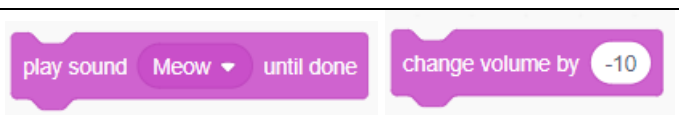
**Simple input sequences in Scratch**

In Scratch, we can use blocks to make things happen when we click or press something on our keyboard. These are called inputs. We can then make a list of things that should happen.

| Concept | Explanation | Example |
|---|---|---|
| sequence | To create a program in Scratch, you need to think systematically about the order of steps. |  |



**Scratch blocks**

| block colour | what it does | examples |
|---|---|---|
| Events | makes things happen |  |
| Motion | makes things move |  |
| Looks | changes how something looks; makes things appear and disappear |  |
| Sound | makes a sound |  |

**Vocabulary**

**algorithm** – set of instructions

**code** – set of instructions written for a computer

**precise** – say exactly what you want a person or a program to do

**sequence** – the order things happen in

**input** – what we put into a computer, eg pressing a key or clicking

**decompose** – break something down into smaller parts

**order** – when something happens

**Scratch** – a programming language designed for children, Can be used to make stories, animations and games

**blocks** – puzzle-shaped pieces in Scratch which click together

**sprite** – objects or images in Scratch

**debug** – spot a fix a mistake in a program

**background** - picture at the back of the scene

**Experiences**

Role-play: real life sequences with a partner (in class, during PE, in music)

Code-it Gold: Game: magic carpet (guided)

Code-it Gold: Scene – monologue or dialogue

Gold it Gold Shape – sequence

Gold it Gold Game – Ladybug munch

**Can you …?**

Give examples of sequences from everyday life

Come up with your own sequence in PE or music

Think through the steps you need to do to achieve something

Play, adapt and improve a simple game in Scratch

Use events, motion, looks and sound blocks

Keep going even when your program doesn't work first time

Debug your code by finding and fixing errors

Predict what will happen from a sequence of Scratch code blocks

Break code down into smaller parts (decompose)