

Topic: Computing - Computer Science	Year group	Term
Espresso Sequence and Animation	Year 3	Autumn 2 6 sessions

Background knowledge

Children will have completed two units of Espresso Coding in Year 2, Different sorts of input and Buttons and Instructions.

What should I already know?

That one object can be used to control another object. e.g. writing code so clicking a button gives an instruction to make a lorry move, and that programs respond to different sorts of inputs, and that the keyboard can be used to control objects on screen, not just by clicking them directly.

National Curriculum Objectives / Key Skills	The Journey
To design, write and debug programs using sequences and variables. To explain how some simple algorithms work and to detect and correct errors in algorithms and programs with support. <i>I can create programs that use sequences and variables to achieve given goals.</i> <i>I can explain how my algorithm works and begin to detect errors with support.</i>	1. Learn to make an Alien eat green bananas and write the code for a countdown using time blocks. 2. Fly to the moon and other planets, learning to code sequences using direction and time blocks. 3. Learn how program a set of traffic lights using hide, show and time blocks. 4. Learn to code things in sequences, moving minibeasts around the garden. 5. Choose your own pictures to make your own sequence or animation. 6. Use what you have learnt so far to make your own sequence or animation.

Outcomes

An overview of what children will know / can do

Working towards: With support, children learn to make things happen in a sequence by using directions, counting and putting numbers in the correct order.

Expected: Children learn to make things happen in a sequence, creating simple animations and simulations.

Exceeding: Children learn to make things happen in a sequence, creating animations and simulations that may tell a story or show a process through their use of time blocks and other blocks such as hide and show.

Key Vocabulary	Timeline / Diagrams
After - how long the program waits before it does the action. Algorithm - The set of steps to solve a problem. Animation - a moving sequence on the screen. Code - A list of commands in a computer program. Debugging - To correct mistakes or problems in a computer program. Directions - up down left right Object - Something on screen, in Espresso coding an object can be a picture, a button or a piece of text. Program - A set of instructions in a programming language or code that tells a computer what to do. Run - To make a program follow its instructions. Sequence - To place programming instructions in order, with each executed one after the other.	

Key people / places

"Well, luckily with animation, fantasy is your friend." Steven Spielberg, Film Director.

Assessment questions / outcomes

What does the word sequence mean?

Which blocks did we use to fly the rocket to the moon?

Can you remember the correct order to program some traffic lights?

How can we make it harder for the snail to move around the garden?

What is the difference between writing our code this week and last week?

What does the add event button do?