

Computing-Year 2- Summer Term- Programming

Prior Learning: We have had some experience of creating short programs using floor robots and predicting the outcome of a simple program. This unit progresses our knowledge and understanding of algorithms and how they are implemented as programs on digital devices.

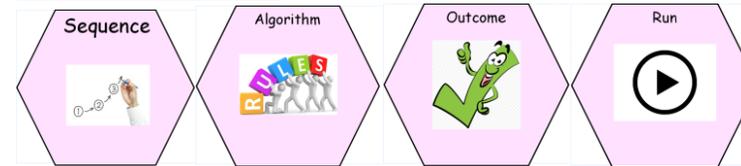
Theme: Programming Quizzes

Concept: Programming

Hardware: Laptops

Software: Scratch Junior

Words we will know!



1. ScratchJr Introduction

We will introduce ScratchJr app (but on the laptops). We will begin to identify the start of sequences in real-world scenarios, and learn that sequences need to be started in ScratchJr. We will create programs and run them in full-screen mode using the Green flag.



sticky knowledge

A sequence shows the order of which things happen.

4. Changing a design

We will look at an existing quiz design and think about how this can be realised within the ScratchJr app. We will choose backgrounds and characters for our own quiz projects. We will modify a given design sheet and create our own quiz questions in ScratchJr.

Quiz design

Use this design to help you create an interactive quiz to answer the question 'Who lives here?'

Question	Background	Sprite	1. Start on tap	2. Yes or No	3. Stop or change to ____ background?
Who lives here?			Tap _____	Say '_____'	
			Tap _____	Say '_____'	
Who lives here?			Tap _____	Say '_____'	
			Tap _____	Say '_____'	
Task level		Artwork	Algorithms		

2. Outcomes

We will discover that a sequence of commands has an 'outcome'. We will then predict the outcomes of real-life scenarios and a range of small programs in ScratchJr. We will then match programs that produce the same outcome when run, and use a set of blocks to create programs that produce different outcomes when run.

sticky knowledge

A sequence of commands has an outcome.

5. Designing and creating a program

We will create our own quiz question designs including our own choices of question, artwork, and algorithms. We will increase the number of blocks used within our sequences to create more complex programs.

3. Using a design

We will be taught how to use the Start on tap and Go to page (Change background) blocks. We will use a predefined design to create an animation based on the seasons. We will then be introduced to the task for the next lesson. We will predict what a given algorithm might mean.

sticky knowledge

An algorithm It is a set of precise instructions showing what you want the program to do.

6. Evaluating

We will compare our projects to our designs. We will think about how we could improve our designs by adding additional features. We will modify our designs and implement the changes on our devices. We will find and correct errors in programs (debug) and discuss whether they debugged errors in their own projects.

sticky knowledge

Debugging is fixing a problem in a program

