

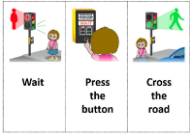
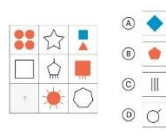
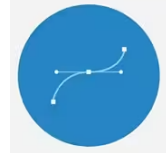
We are games developers

Prior Knowledge

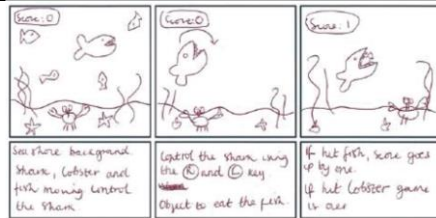
In **Unit 1.1: We are treasure hunters** you programmed Beebots. In **Unit 1.5: We are rhythmic** and **Unit 2.1: We are astronauts** you programmed in ScratchJr. In **Unit 2.2: We are games testers** you were introduced to some Scratch games.

In Key Stage 2 you developed your Scratch programming skills in **Unit 3.1: We are programmers** and **Unit 4.1: We are software developers**.

Key Vocabulary:

algorithm		a sequence of precise instructions or steps (sometimes a set of rules) to achieve an objective	logical reasoning		a systematic approach to solving problems or deducing information using a set of universally applicable and totally reliable rules
background		scenery and other unchanging elements in a game	program		an automated solution to a problem
bug:		an error or mistake in a program or algorithm, causing the computer or robot to behave in a manner that was not originally intended	scratch		simple, block-based programming language in which programs for characters are built by snapping together code blocks
code		instructions (or rules) that can be understood by a computer	Sprite		a graphical character in a program that can be given its own sequence of instructions
debug		correct mistakes in a computer program or algorithm	vector graphics		a way of representing an image by specifying the lines, arcs and regions from which it is made
iterative development		a trial and improvement approach in which each successive version builds on the previous one by the fixing of mistakes or the adding of features			

Key learning: What different ways can we make a game end?



Session 1: Planning the algorithm for the game

What are the key features that make a game a game?



Sessions 3–5: Creating a prototype for the game, debugging and testing it

How can I write a program that allows the player to control where the Sprite moves?

What different criteria can be used to allow a game to end?

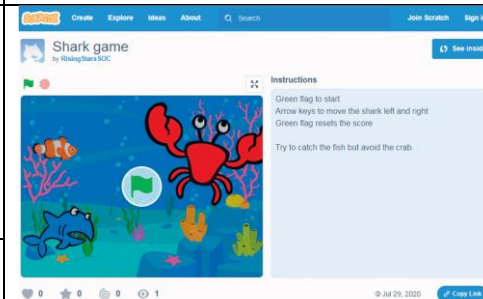
Why do we need to debug a program?



Session 2: Creating multiple costumes for a sprite

Why would you create multiple costumes for the same sprite?

How do you access the music blocks in Scratch?



Session 6: Writing instructions for the game and publishing it

Why do games need instructions?

Key Applications (apps)



Next Steps

You will further develop their Scratch programming and problem solving in **Unit 6.2: We are computational thinkers.**