Unit 2.2: We are games testers

5 words to remember

algorithm: a sequence of instructions or steps to achieve a goal

code: instructions (or sometimes rules) that can be understood by a computer; in ScratchJr code blocks are visual, which helps to identify their purpose

programming: a sequence of instructions that can be followed by a computer

repetition: programming construct that allows a group of instructions to be repeated a number of times, or until a certain condition is met

sprite: a character / object in a program that can be given its own sequence of instructions

Key takeaways

This unit is all about playing exciting Scratch games and figuring out the special rules that we call **algorithms**.

- ☐ **Session 1:** Work out the rules (algorithms) for a simple arithmetic game.
- ☐ **Session 2:** Work out the rules (algorithms) for a chase game.
- ☐ **Session 3:** Work out the rules (algorithms) for a two-player sports game.
- ☐ **Session 4:** Work out the rules (algorithms) used in a shooting game.
- ☐ **Session 5:** Play a professionally produced coding-based game.
- ☐ **Session 6:** Play a turn-based two-player game, working together to identify winning strategies.

Using this block in ScratchJr will run the blocks that are inside it a certain number of times. This is called **repetition**, for example repeat 4 times.

Knowledge check: Motion blocks

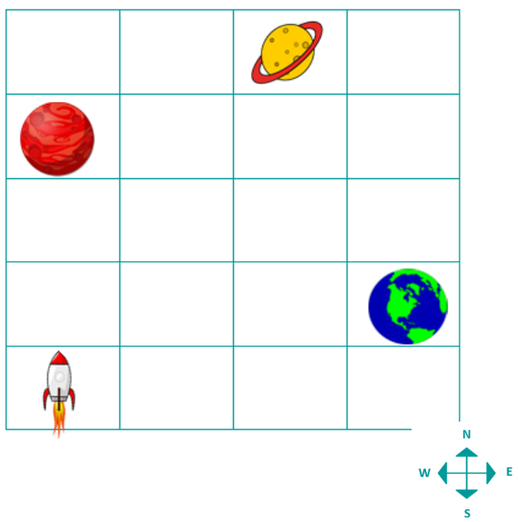
Motion blocks in ScratchJr control direction, turns and movement.

Test yourself: Can you guess what using these blocks would make the sprite do?

Clue: Blocks can move the sprite or turn the sprite.

Knowledge check: Instructions

Test yourself: Can you work out the instructions (algorithm) needed to get the robot spaceship to the red planet, then to the yellow planet and then back to Earth? Use compass directions or up, down, left and right.



Knowledge check: ScratchJr block types

ScratchJr is a simple, block-based **programming** language. Programs for **sprites** are built by snapping together **code** blocks – just like LEGO® blocks! There are different types of blocks in ScratchJr that do different things.

Test yourself: Which block type would you use to add sound recording to your project?