

## 5 words to remember

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

**bug:** an error or mistake in a program or algorithm that causes the computer or robot to do the wrong thing; bugs need debugging to correct them

**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

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

## Key takeaways

- ❑ ScratchJr is a program that uses blocks. These can be connected together to create a program.
- ❑ When programming routes, instructions must be precise and in the correct order to make sure the sequence of movements is correct.
- ❑ In ScratchJr, the 'direction' blocks are used to move or turn the **sprite**.
- ❑ The way that sprites look is called their 'costume'. Costumes can be edited and changed using the paint-editor tool.
- ❑ There are different ways to start code running in ScratchJr; these are called 'events'.
- ❑ If the sprite is not moving correctly, there may be a **bug** in the code that needs fixing.
- ❑ Rather than using the same blocks again and again, using a repetition block makes our programs better.



Using this block in ScratchJr will run the blocks 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.

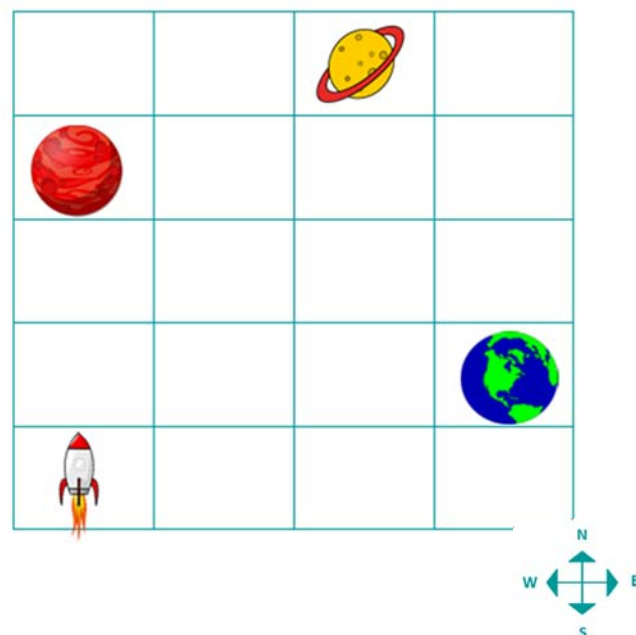
**Test yourself:** Can you guess what using these blocks would do to the sprite?



**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?

