

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.

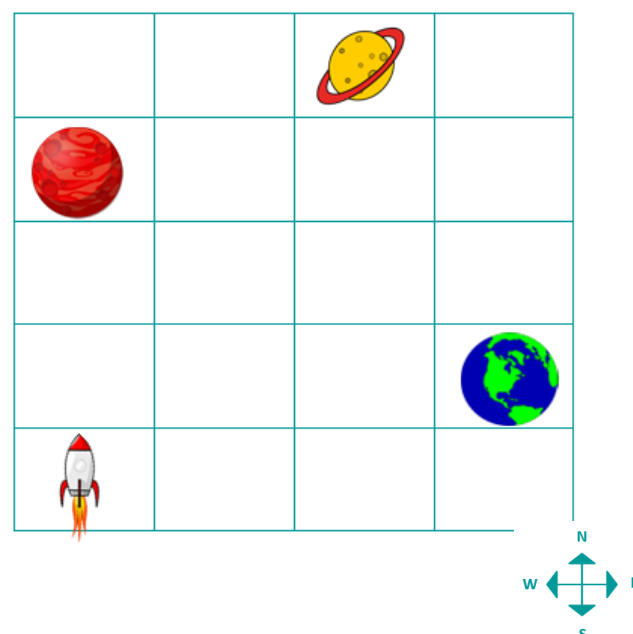
Test yourself: Can you guess what using these blocks would do to the sprite?



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?

