



Learn

Learning Objectives

- To know that an algorithm is a set of instructions.
- To create simple algorithms to make a rocket move.

Learning Outcomes

All children: will make the rocket move to a planet.

Most children: will make the rocket move to each planet.

Some children: will move 2 or more rockets simultaneously.

Cross curricular links

Maths: geometry-position and direction.

Vocabulary

Sprite, algorithm, simple mode, advanced mode, code ([see glossary](#)).

Resources

Template: [Y1Template1](#)

Example: [Y1Example1](#)

Video: just2easy.com/vids/j2code/Y1video1

Code

Introduction

Show the example. Discuss what is happening as the rocket (sprite) moves. (*Draw the children's attention to the instructions on the left.*)

Introduce the word **algorithm** and **code**.

Q. How can we get the rocket to the orange planet? (*Click the forward and turn arrows*)

Q. What do the green and red pencil buttons do? (*Pen up and pen down*)

Children discuss and share ideas.

Main Activities

Task 1. Using the space template have a go at making the rocket move to different planets. Experiment with pen up and pen down. Look at the code that appears in the box.

Stop the class and allow children to share what they have done. Discuss any problems.

Task 2. With pen down, make the rocket visit each planet in turn and return to base.

Challenge

Children choose 2 or more rockets to visit different planets at the same time. (*Use the + button, select a second sprite and drag it to a new start position.*)

Repeat

Follow up lesson(s)

Before moving on to lesson plan 2, give children extended time to experiment moving sprites around the screen. (*The amount of lesson time needed will vary depending on the children's abilities*). Use different backgrounds, for example choose the flower background and ask children to create 4 sprites each landing on a different flower. Higher ability children can move on to advanced mode. (*See Lesson 2*).

Children can be encouraged to continue to experiment by accessing JIT at home.

Schools with access to the Just2easy ToolSuite may choose to blog some work, teachers may also save and share their own examples and templates.

Assessment

Self and peer assessment - pupils can work with a partner to review, and help correct their code (debug).