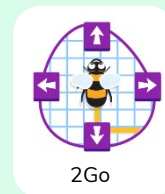# Year 3
Route Planners

Key Learning

- To create 2Go commands to move a turtle along a route.
- To create commands in 2Go in which the turtle turns using rotation.
- To plan algorithms and write 2Go code that uses angle of turn.
- To use 90° and 45° angles in 2Go.
- To use the repeat algorithm and coding in 2Go.

Key Resources

2Go

Key Vocabulary

Algorithm
A set of instructions in order.

Angle
(In relation to rotation), this gives a number value to the amount of rotation movement. For example, a quarter-turn is 90 degrees (°).

Command
A single instruction, such as, turn left'.

Degrees
The unit used to measure rotation.

Route
A path an object takes to get from one place to another.

Turtle Object
A type of object that moves by coding either directions or angles of rotation and distance to move.
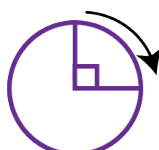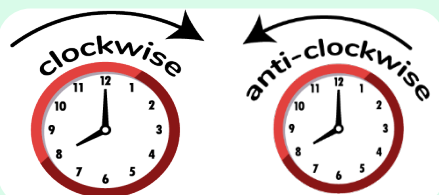
Repeat
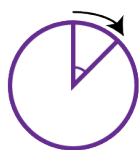This can be used to make a block of commands run a set number of times.

Rotation
The action of turning around a centre point. This is a circular movement where an object changes its direction.
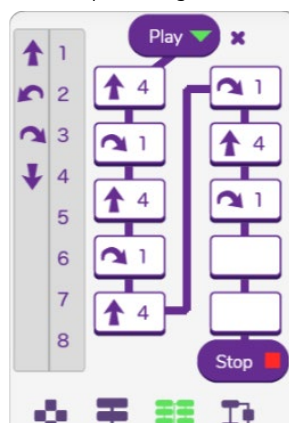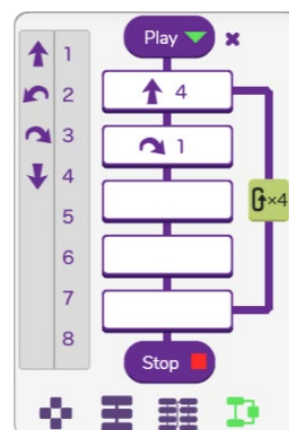
Key Images

clockwise   anti-clockwise

90° clockwise

45° clockwise

Rewind

Sequence algorithm

Repeating algorithm

Year 3
Route Planners

Key Questions

Which angles can the turtle rotate in one rotation?

90° and 45°.

How many commands can be in a program with a sequence?

Up to 10 commands.

How do you work out the angle and direction for a command?

Decide whether the turtle needs to rotate clockwise or anti-clockwise then decide whether the turn uses 90° or 45° angles turns and how many for each turn.

Which shapes can you make using repeat?

Square, rectangle, triangle, octagon.