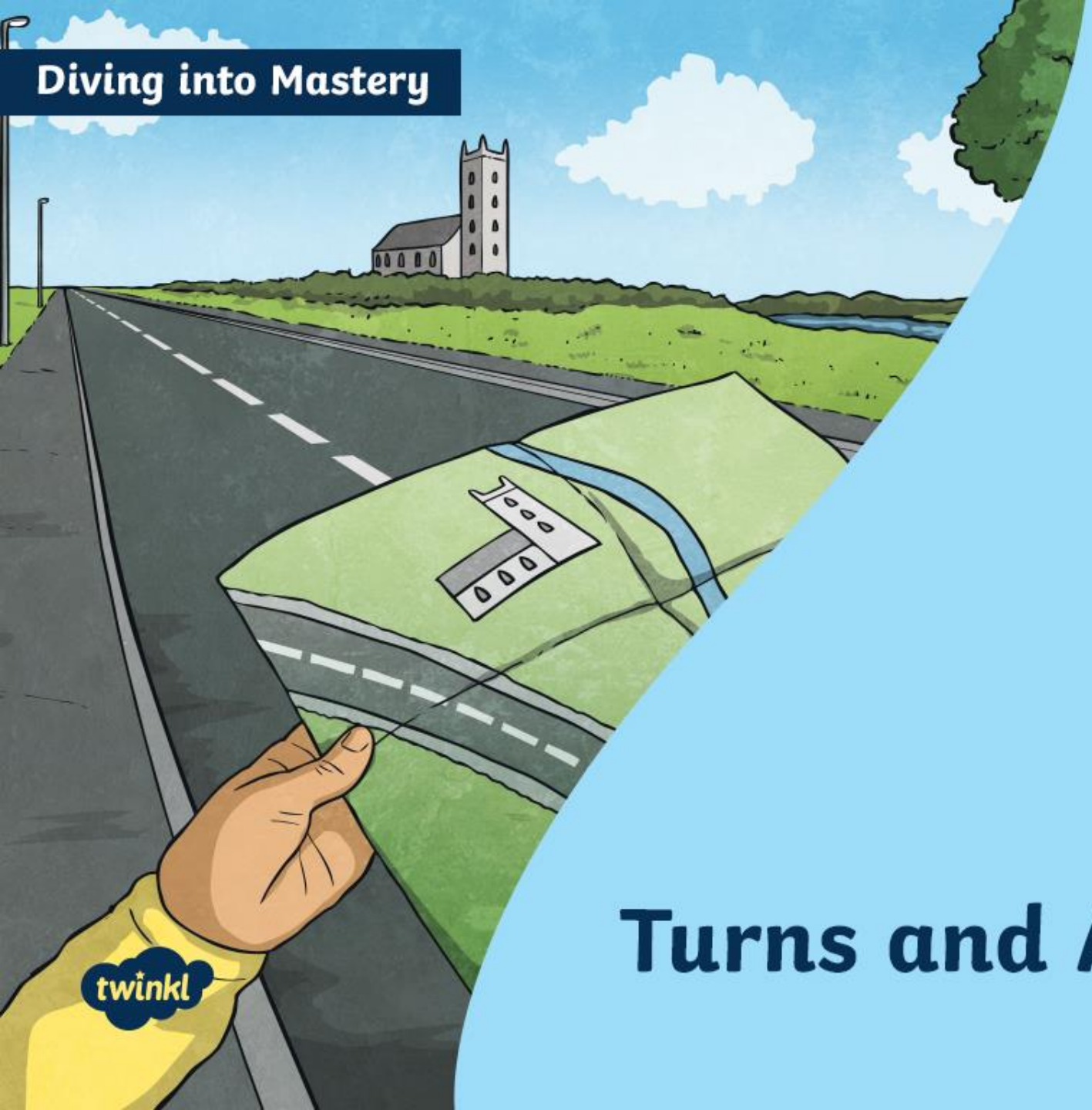
Diving into Mastery



# Turns and Angles

# Diving into Mastery Guidance for Educators

Each activity sheet is split into three sections, diving, deeper and deepest, which are represented by the following icons:

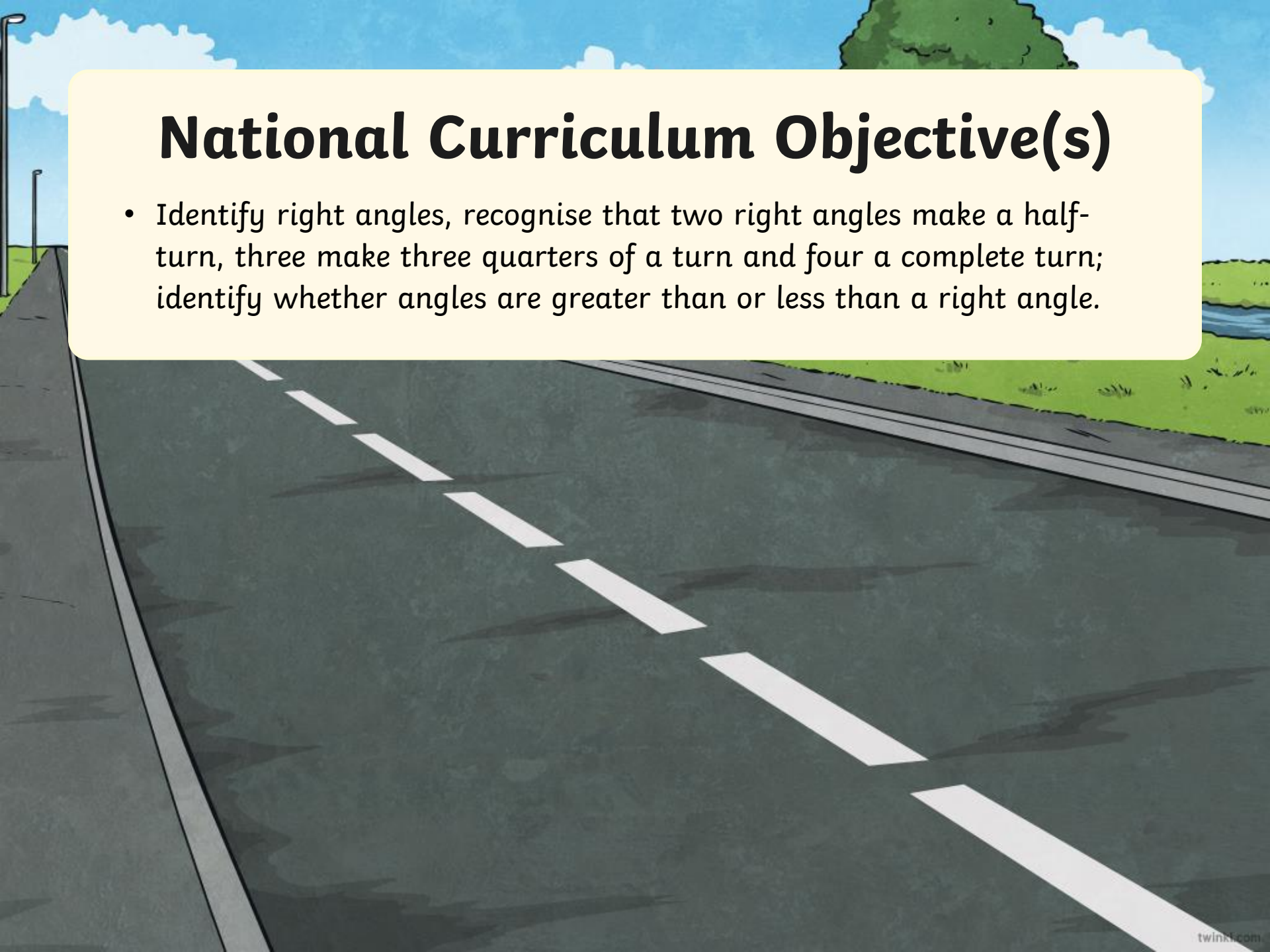
Diving

Deeper

Deepest

These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

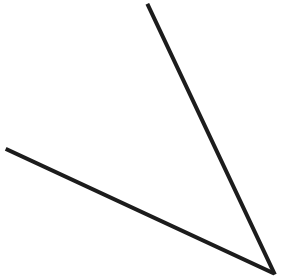
These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.

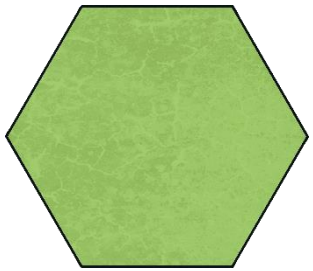


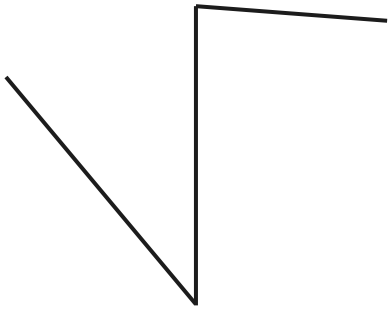
# National Curriculum Objective(s)

- Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.

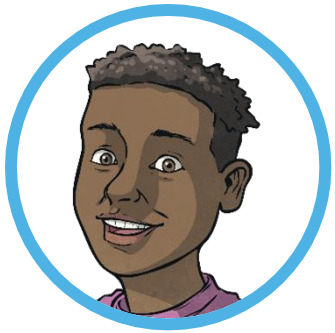
An angle is made when two straight lines meet.





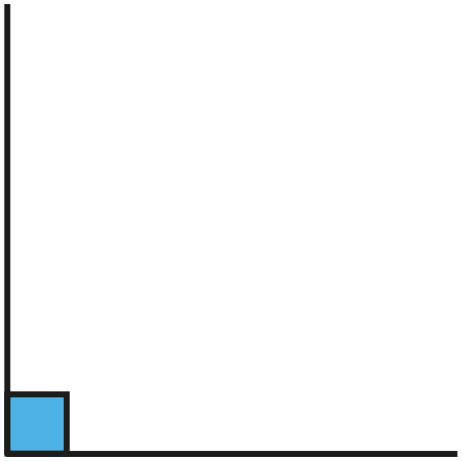


Each of these pictures shows one or more angles.



**Turns and Angles** | **Diving**

A right angle is made when two lines meet like this:



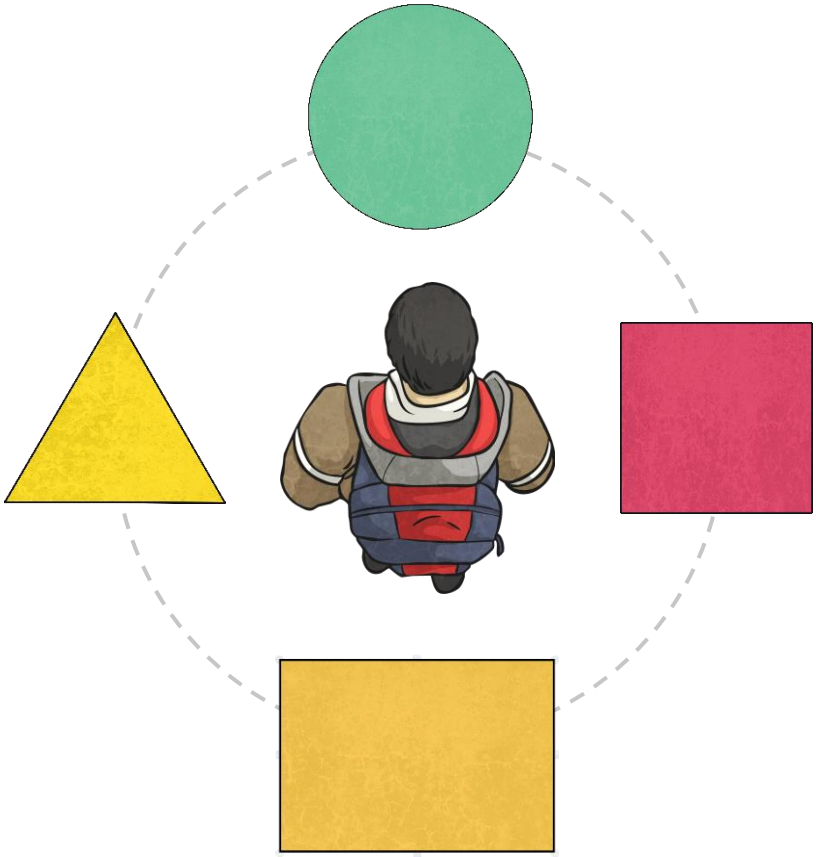
A quarter turn looks like this:

The size of a right angle is 90°.

When something makes a quarter turn, it turns 90°.

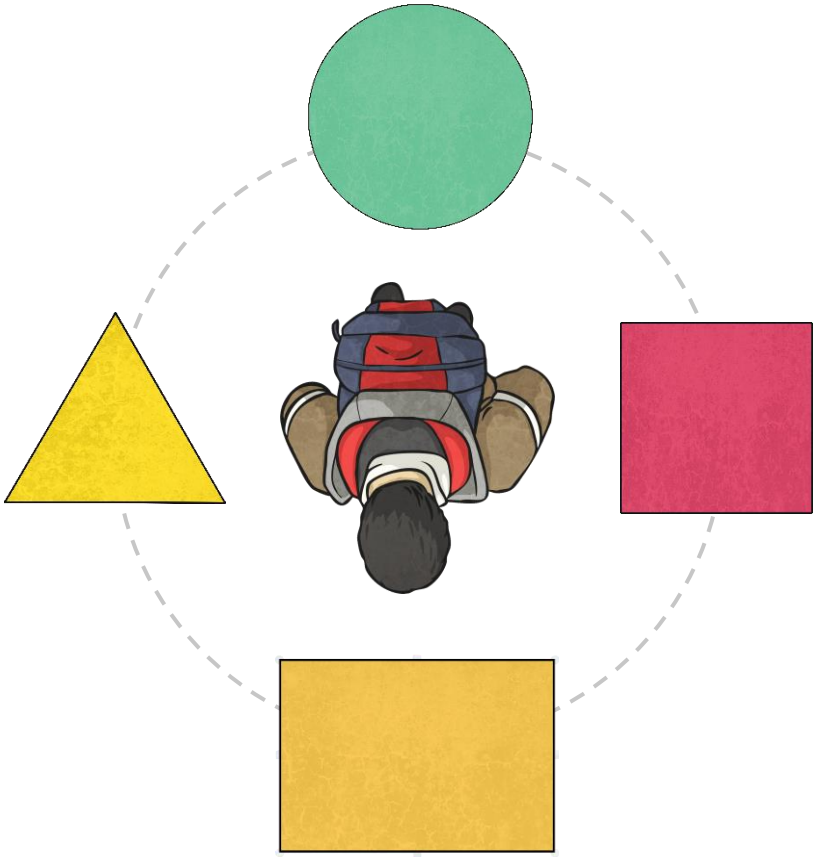
**Turns and Angles** **Deeper**

The child is facing the **circle**. If they make a quarter turn clockwise, which shape will they be facing?



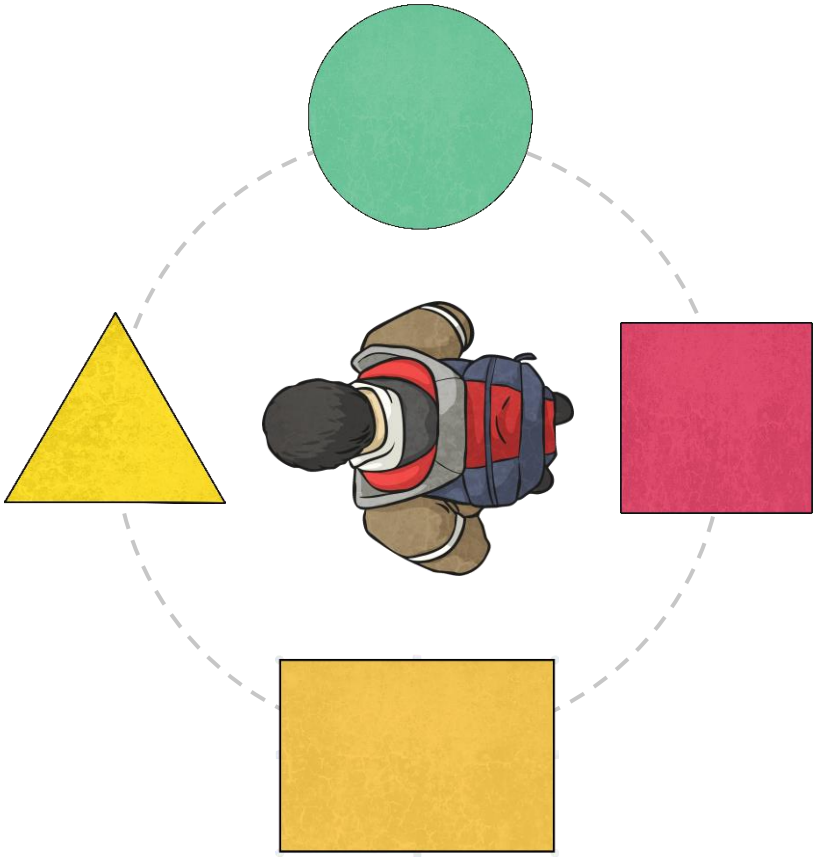
**Turns and Angles** | **Deeper**

The child is facing the **rectangle**. If they make a three-quarter turn anticlockwise, which shape will they be facing?



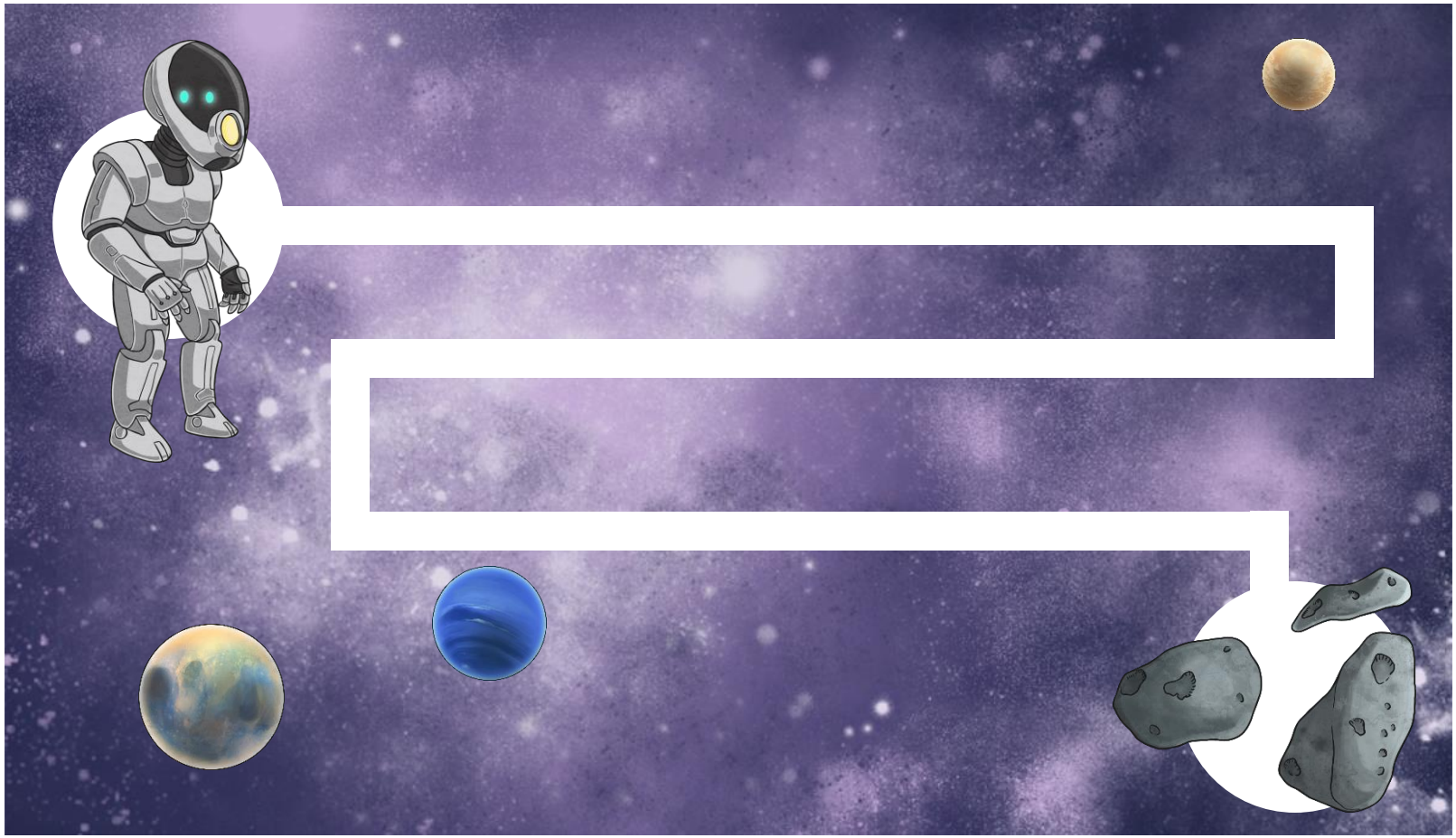
**Turns and Angles** | **Deepest**

The child makes a quarter turn clockwise to face the circle.
Is there another way he could have turned to end up in the same position?



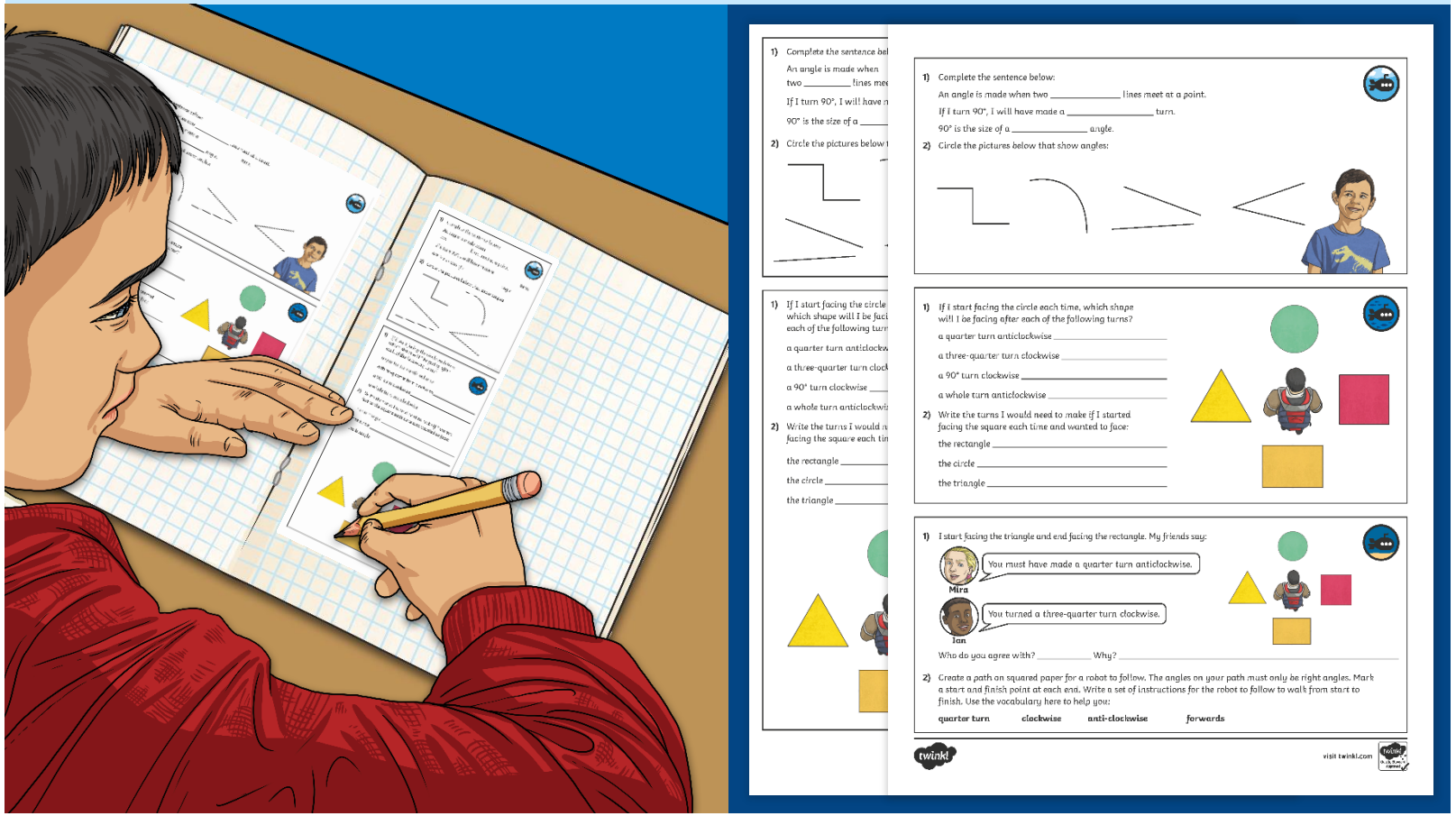
**Turns and Angles** | **Deepest**

What turning instructions would you give to the robot to escape the maze?



# Turns and Angles

## Dive in by completing your own activity!



1) Complete the sentence below:
An angle is made when two _____ lines meet at a point.
If I turn 90°, I will have made a _____ turn.
90° is the size of a _____ angle.
2) Circle the pictures below that show angles:

1) If I start facing the circle each time, which shape will I be facing after each of the following turns?
a quarter turn anticlockwise _____
a three-quarter turn clockwise _____
a 90° turn clockwise _____
a whole turn anticlockwise _____
2) Write the turns I would need to make if I started facing the square each time and wanted to face:
the rectangle _____
the circle _____
the triangle _____

1) I start facing the triangle and end facing the rectangle. My friends say:
Mira: You must have made a quarter turn anticlockwise.
Ian: You turned a three-quarter turn clockwise.
Who do you agree with? _____ Why? _____
2) Create a path on squared paper for a robot to follow. The angles on your path must only be right angles. Mark a start and finish point at each end. Write a set of instructions for the robot to follow to walk from start to finish. Use the vocabulary here to help you:
**quarter turn** **clockwise** **anti-clockwise** **forwards**

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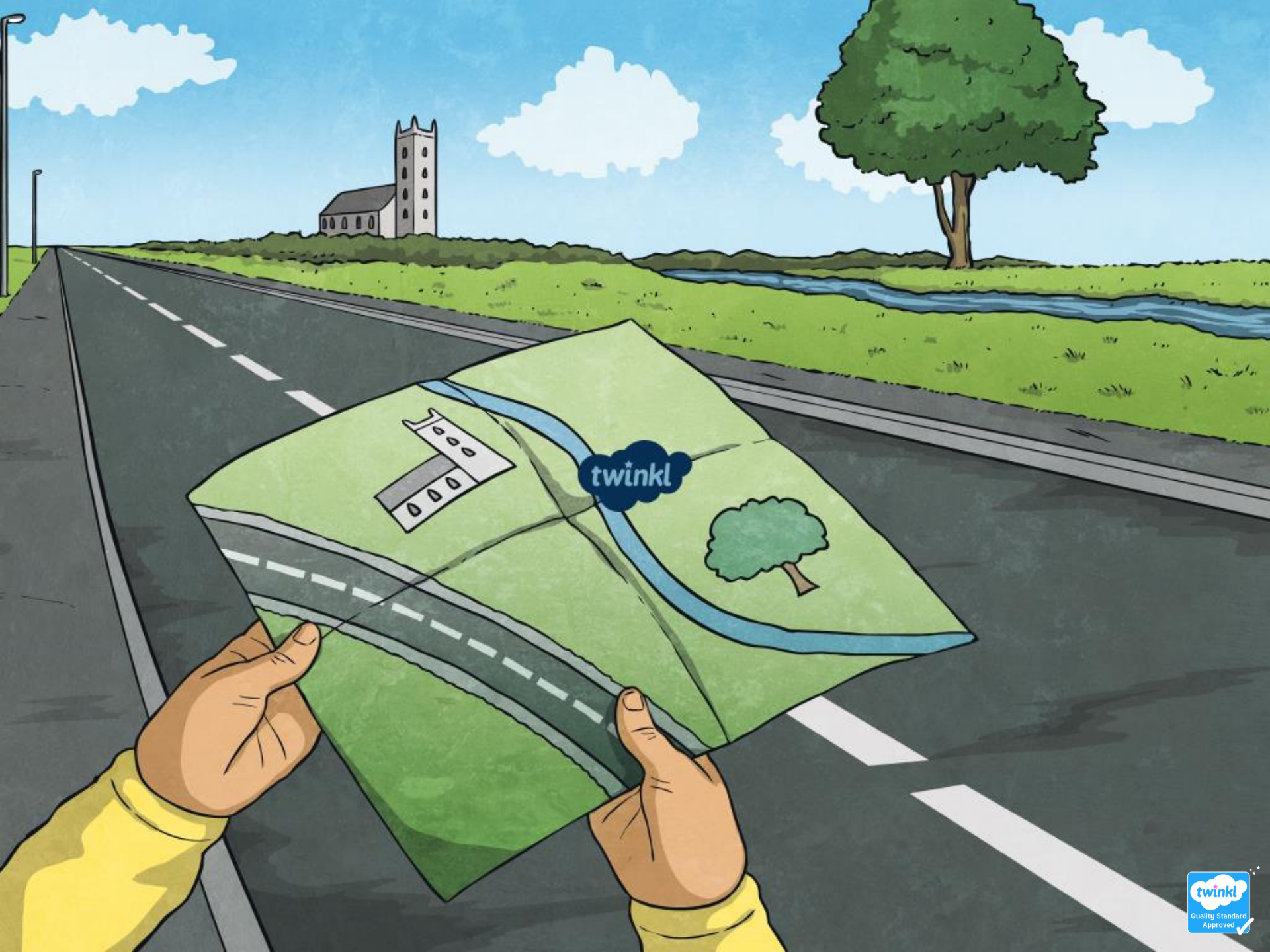
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