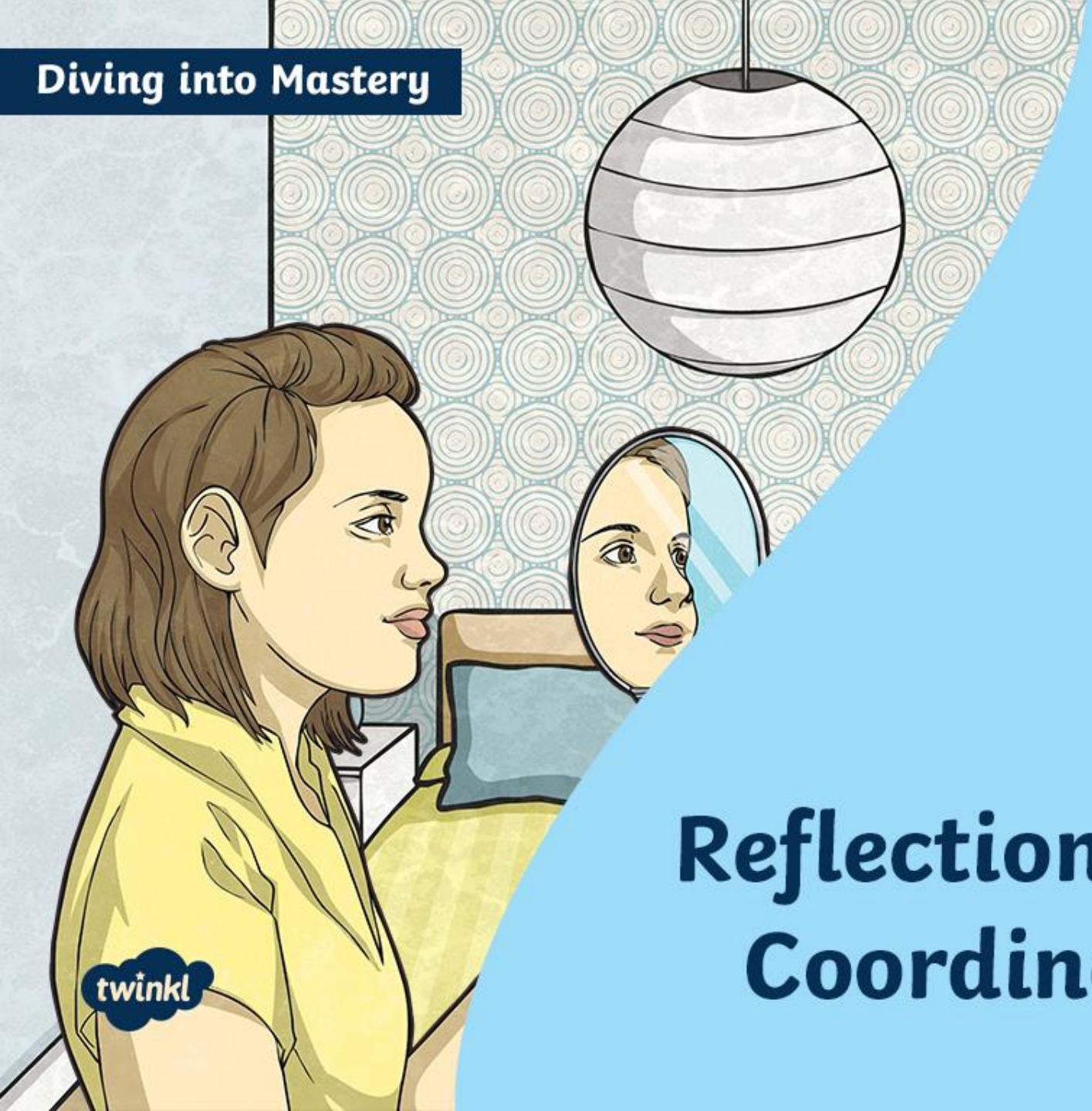
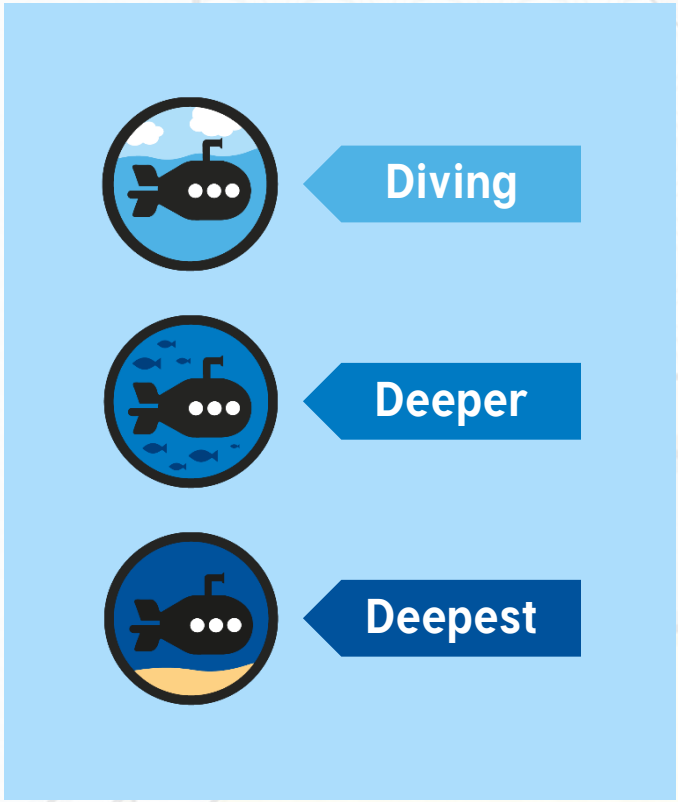
Diving into Mastery



Reflection with Coordinates

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:

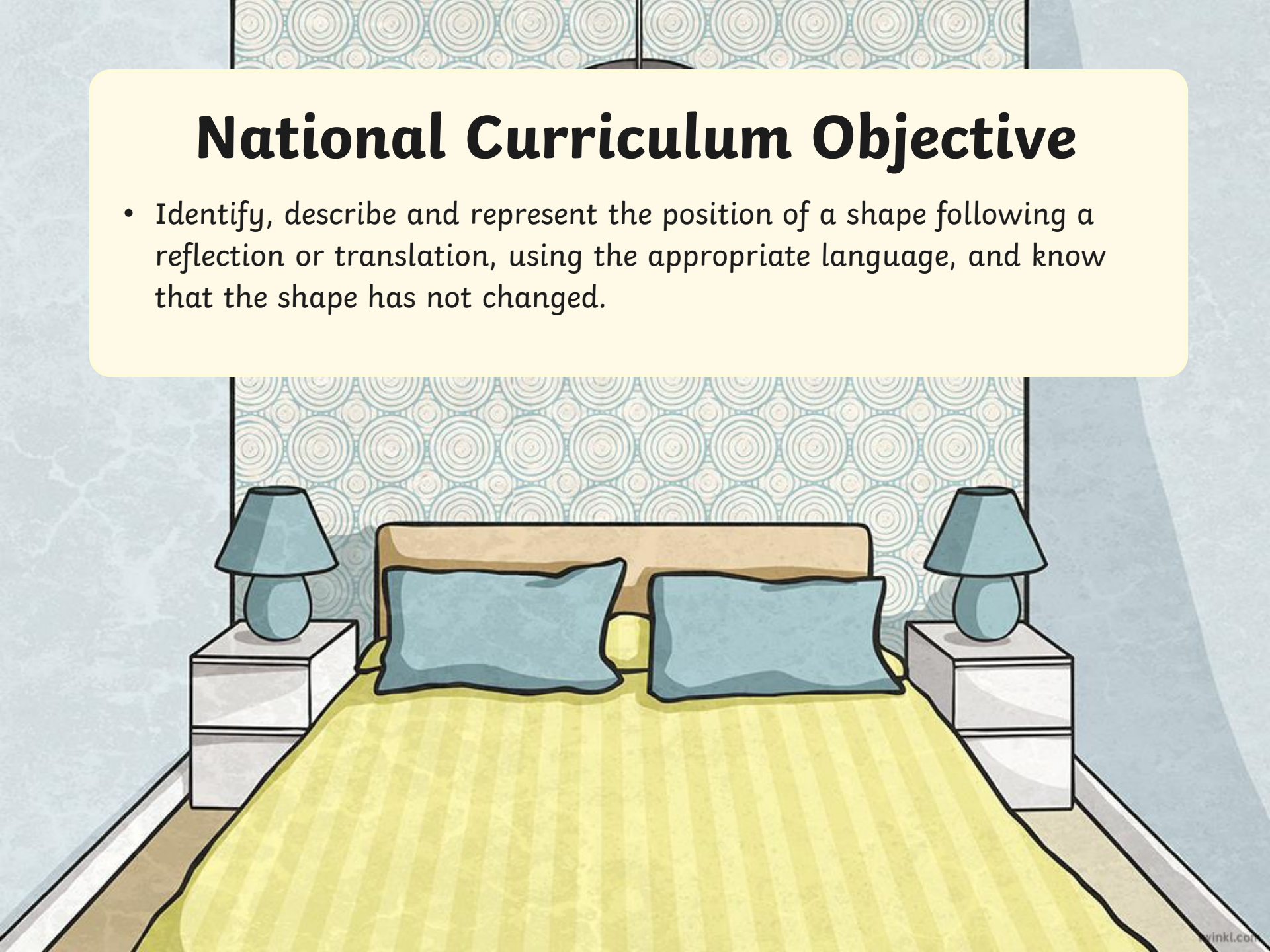


These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

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

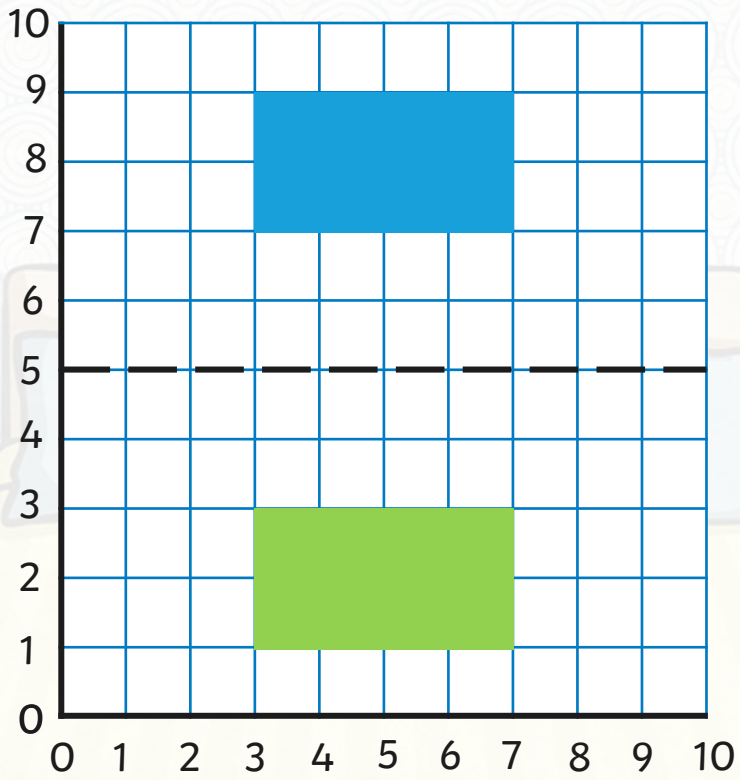
- Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.



Reflection with Coordinates | **Diving**

Jermaine wants to reflect the blue rectangle in the mirror line.

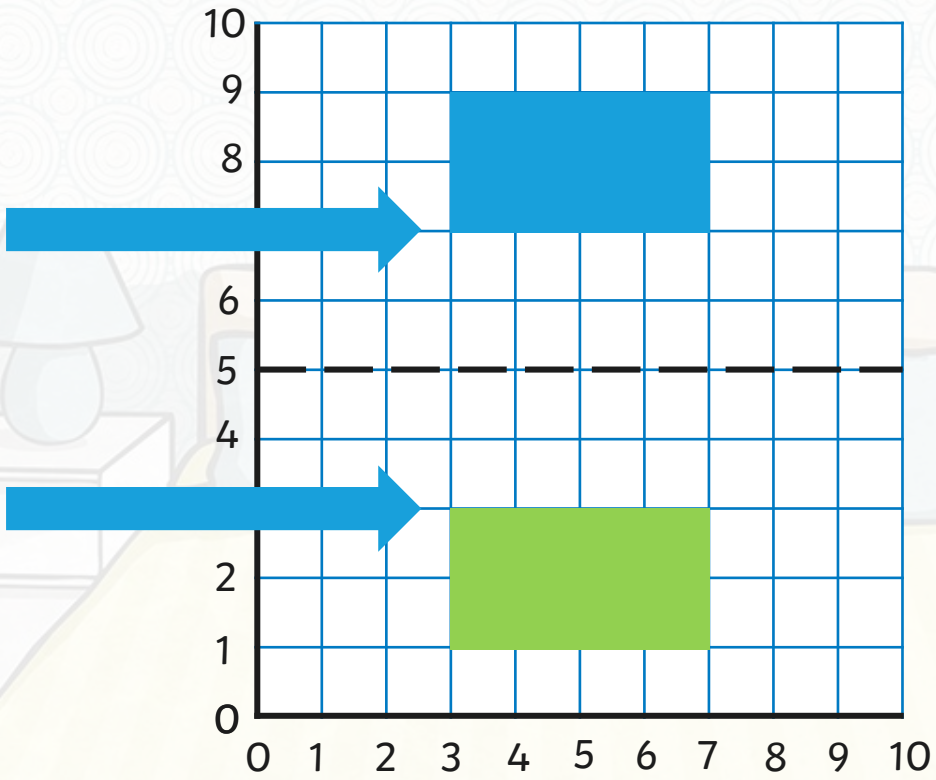
The reflected shape is shown in green.



Reflection with Coordinates

Deeper

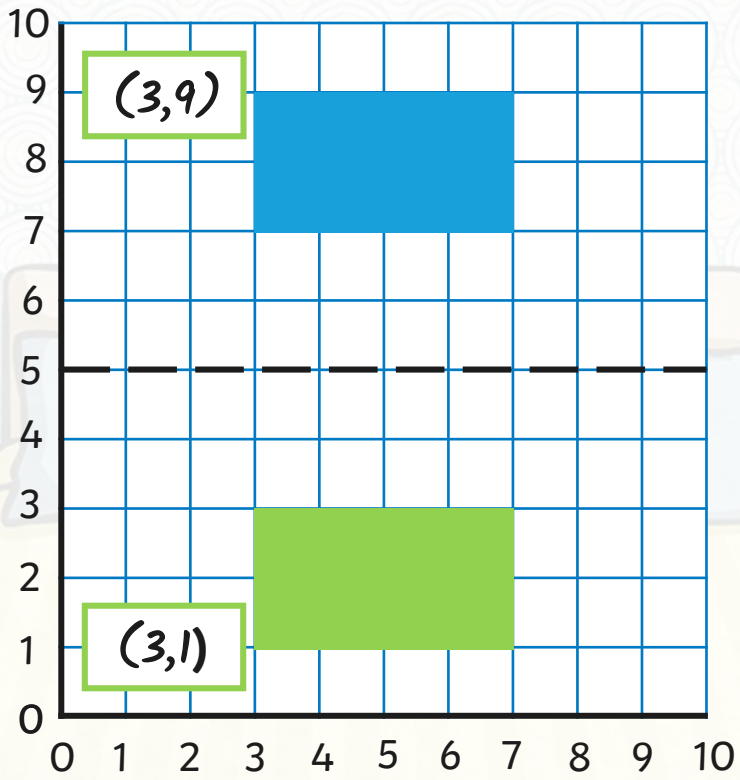
You could focus on one vertex at a time, counting the distance from the mirror line and repeating this distance across the mirror line, plotting the points as you go to show the reflected shape.



Reflection with Coordinates

Deeper

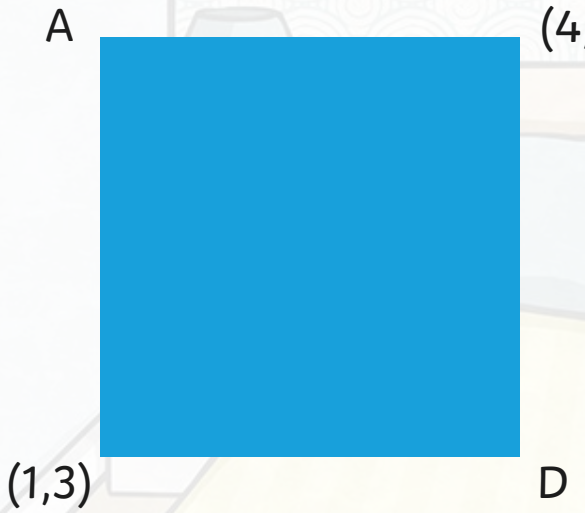
When reflecting a shape in a horizontal mirror line that passes through the y-axis, the x coordinate is the same but the y coordinate changes.



Reflection with Coordinates | Deepest

Shaun has reflected a square in the first quadrant.
Here is the reflected square.
The original coordinates of vertex A were (11,6).

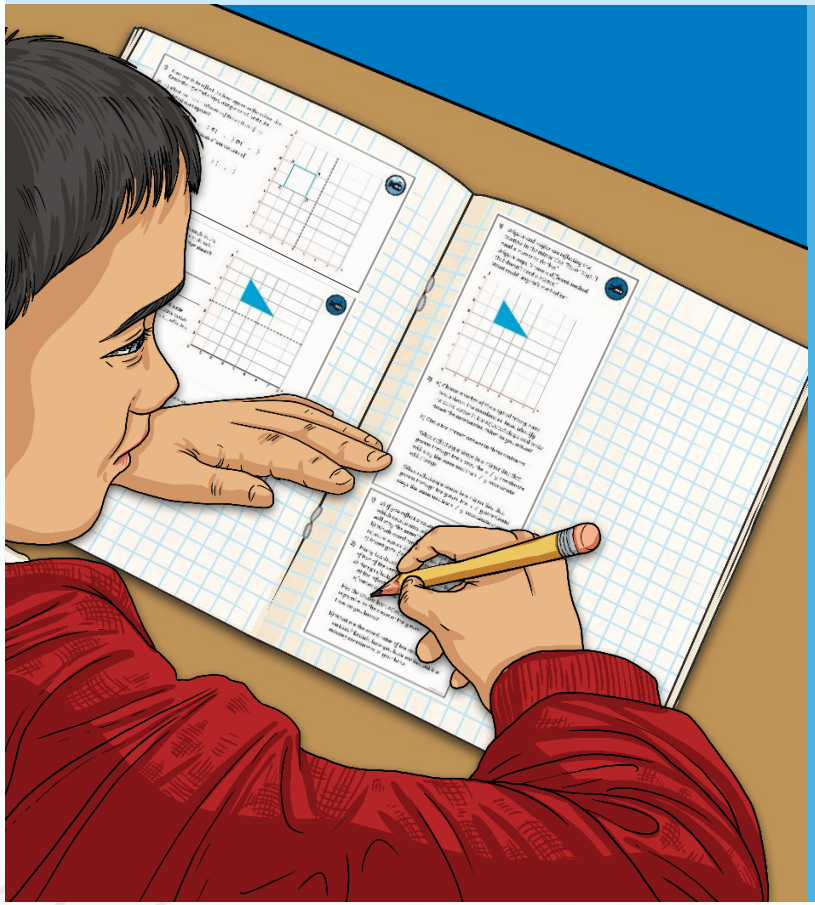
How can you work out the coordinates of the original square?
Has the square been reflected in a mirror line that passes through the x or y axis? How do you know?
Discuss with your Learning Partner

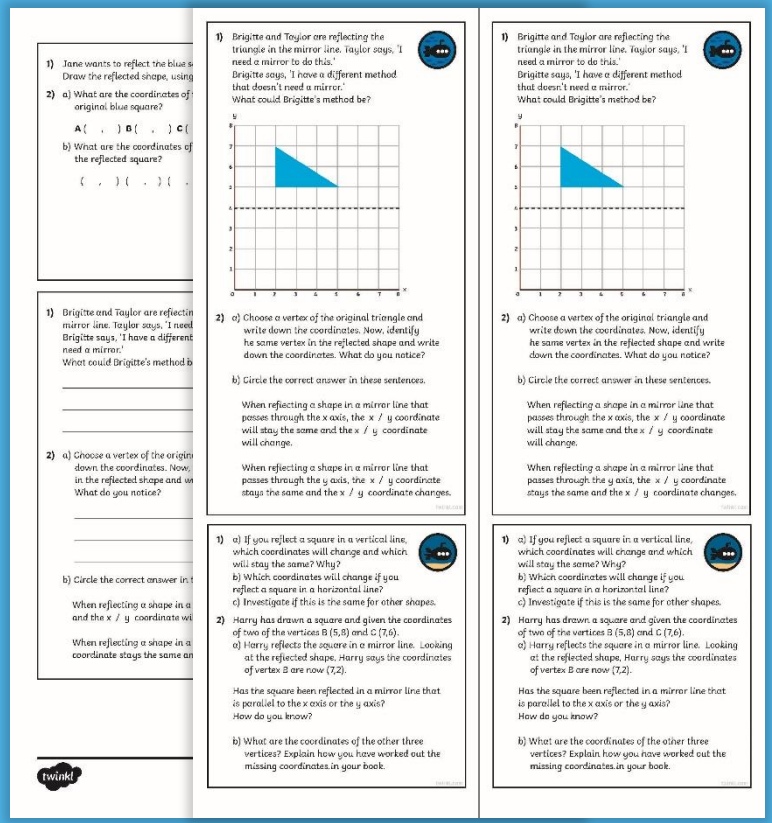


We know vertex A of the original square is (11,6) and the new position of A is (1,6). The difference between the x coordinates is 10. We can therefore deduce that the square is 5 squares from the mirror line. We also know that the sides of the square are 3 squares in length. Vertex B was originally (14,6), C was (11,3) and D was (14,3).

Reflection with Coordinates

Dive in by completing your own activity!



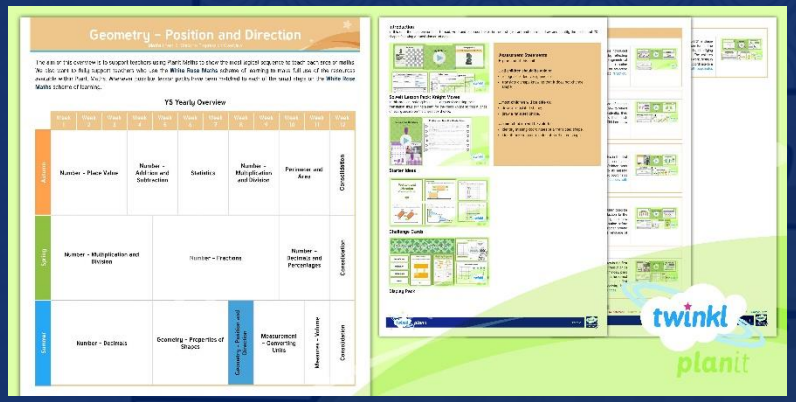


Need Planning to Complement this Resource?

National Curriculum Aim

Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.

For more planning resources to support this aim, click here.



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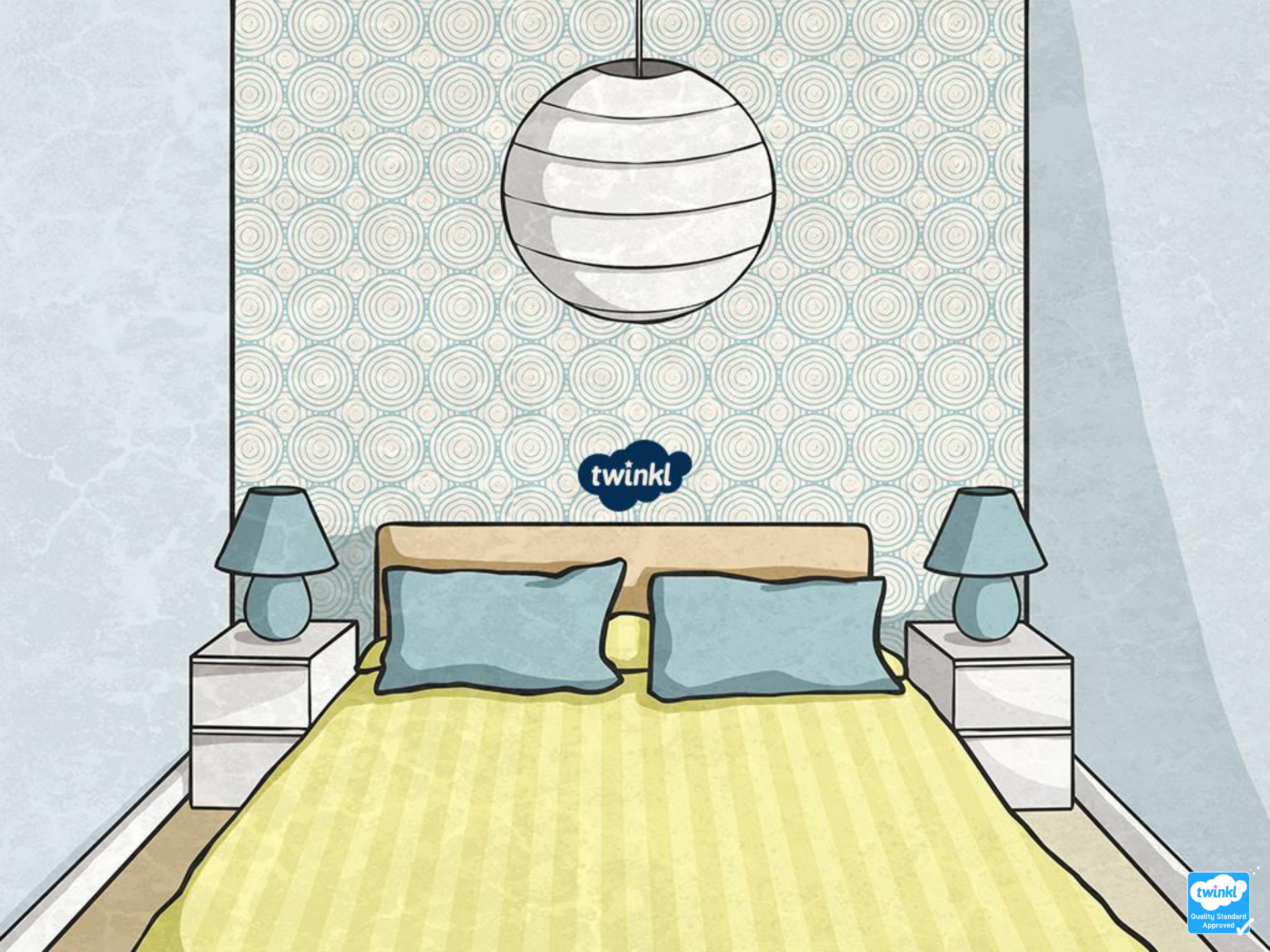
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