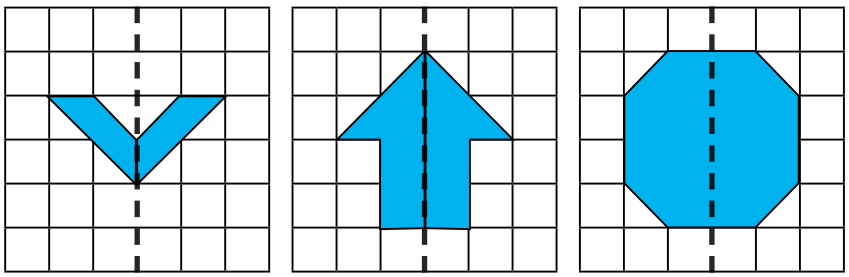
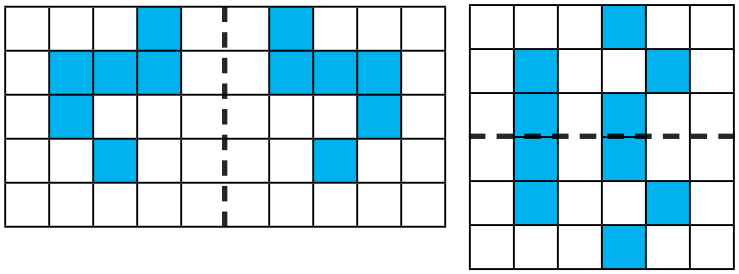
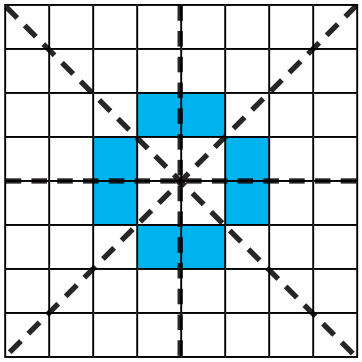
1) Complete the shapes in the mirror lines using a ruler and mirror:



2) Complete the symmetrical patterns by shading the correct squares. Remember to check your answer with a mirror.



1) Carrie says, "A symmetrical pattern on a grid cannot have more than two lines of symmetry."
Is she correct? ***No.***
Draw your own pattern, with lines of symmetry, **on the square grid** to prove your answer.
Children should have drawn a simple pattern showing horizontal, vertical and diagonal symmetry like the example here.



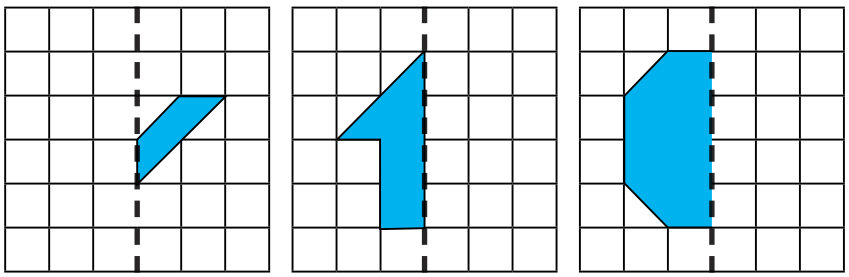
2) Can you shade squares to create patterns on a grid this size with **exactly** two lines of symmetry?
Multiple answers possible.

1) a) Look at these shaded squares:
What is the smallest number of squares you would have to shade to make a symmetrical pattern, if the line of symmetry was vertical as shown here? ***3***

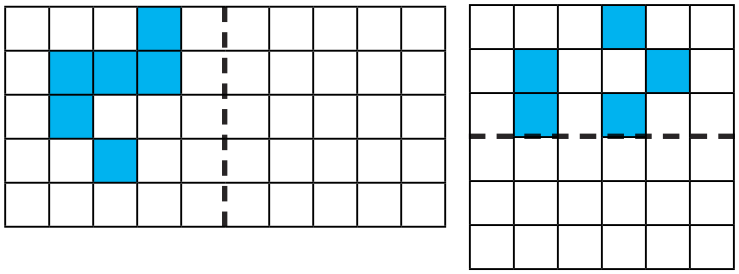
b) Draw a horizontal or diagonal line of symmetry on the grid and shade the fewest squares you can to make a symmetrical pattern. ***Children should have drawn a horizontal or diagonal line of symmetry and completed their pattern correctly.***

Are there places on the grid where the line of symmetry can't go? How many places can it go? Explain your answer.***Accept any explanation that the line of symmetry can't go so close to the edge of the grid that there aren't enough squares on the other side of the line to complete the pattern.***

1) Complete the shapes in the mirror lines using a ruler and mirror:



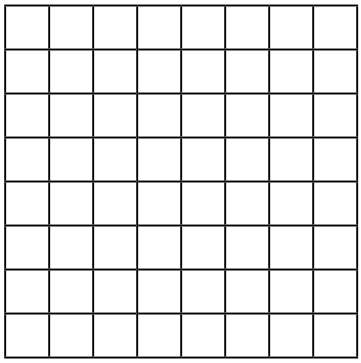
2) Complete the symmetrical patterns by shading the correct squares. Remember to check your answer with a mirror.



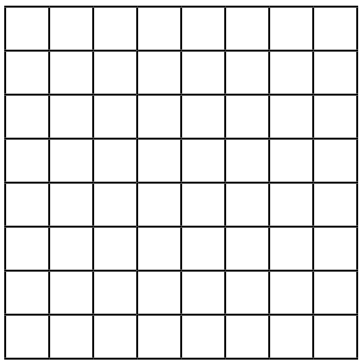
1) Carrie says, "A symmetrical pattern on a grid cannot have more than two lines of symmetry."

Is she correct? _____

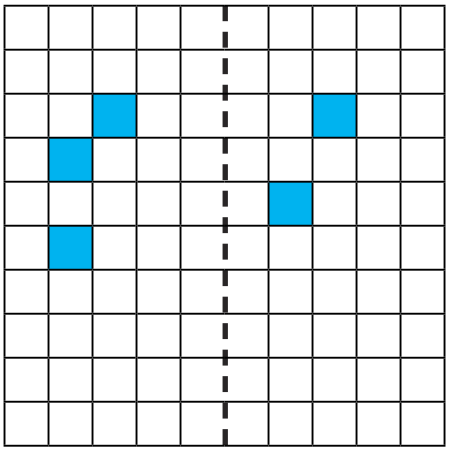
Draw your own pattern, with lines of symmetry, **on the square grid** to prove your answer.



2) Can you shade squares to create patterns on a grid this size with **exactly** two lines of symmetry?



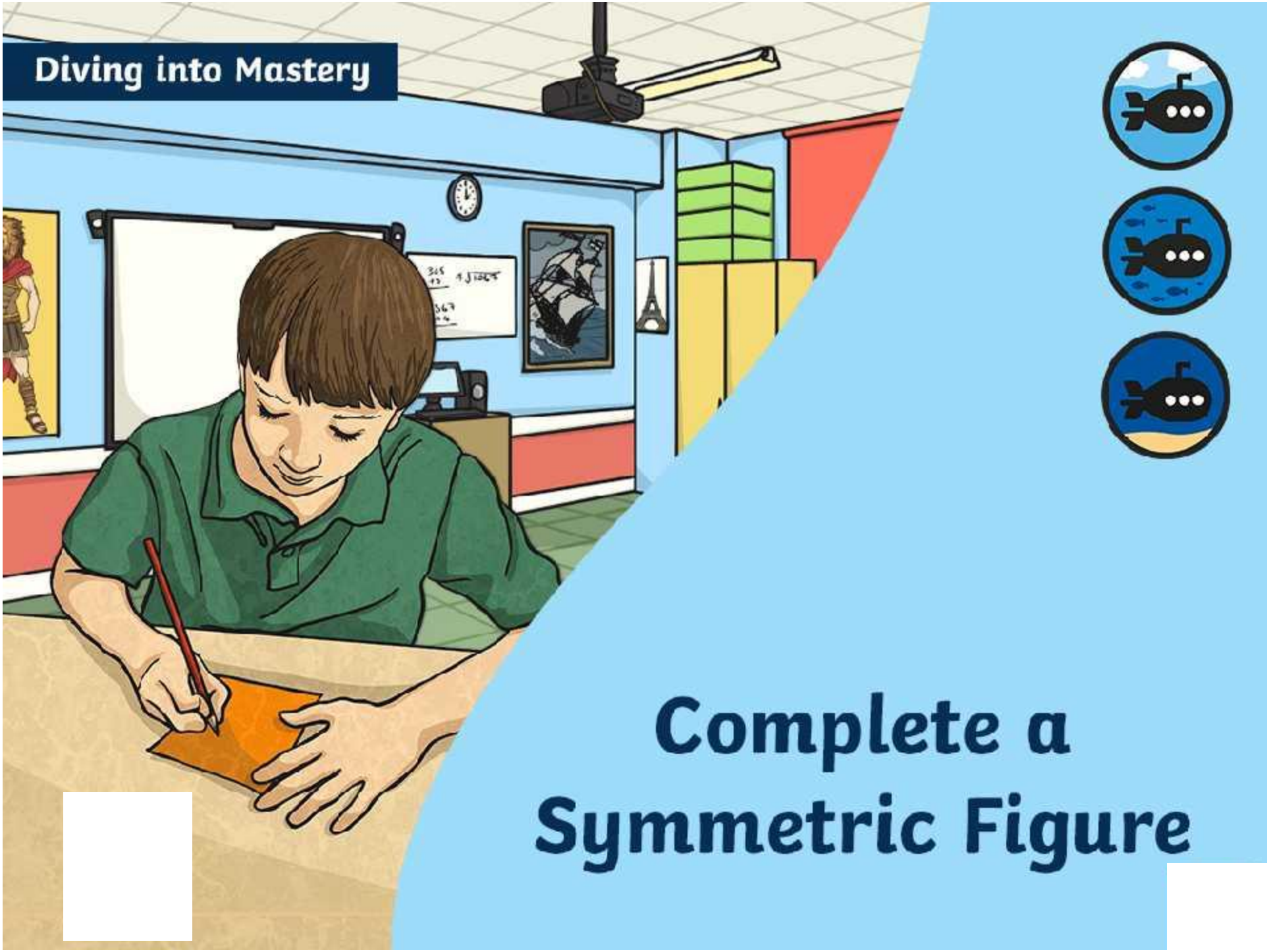
1) Look at these shaded squares:



a) What is the smallest number of squares you would have to shade to make a symmetrical pattern, if the line of symmetry was vertical as shown here? _____

b) Draw a horizontal or diagonal line of symmetry on the grid and shade the fewest squares you can to make a symmetrical pattern.

Are there places on the grid where the line of symmetry can't go? Explain your answer.


Diving into Mastery
Complete a Symmetric Figure

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:

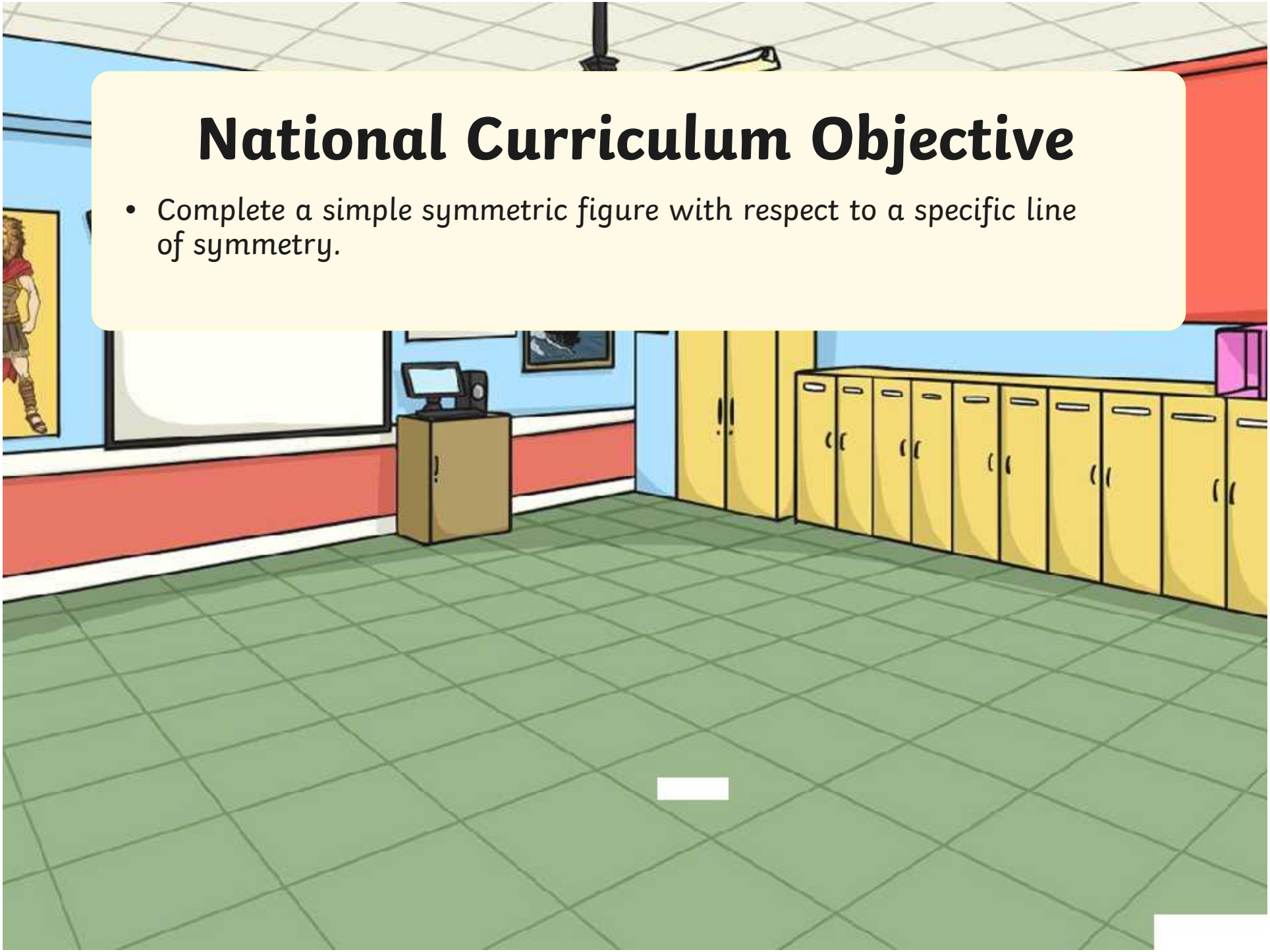
Diving

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.



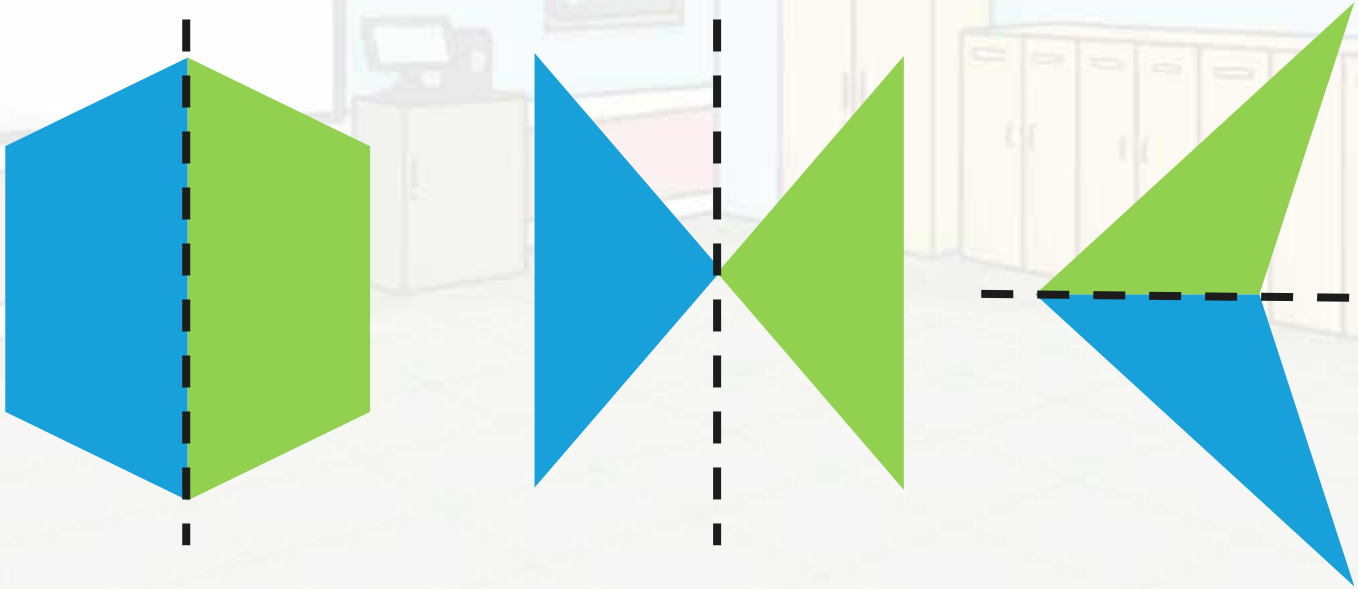
National Curriculum Objective

- Complete a simple symmetric figure with respect to a specific line of symmetry.

Complete a Symmetric Figure

Diving

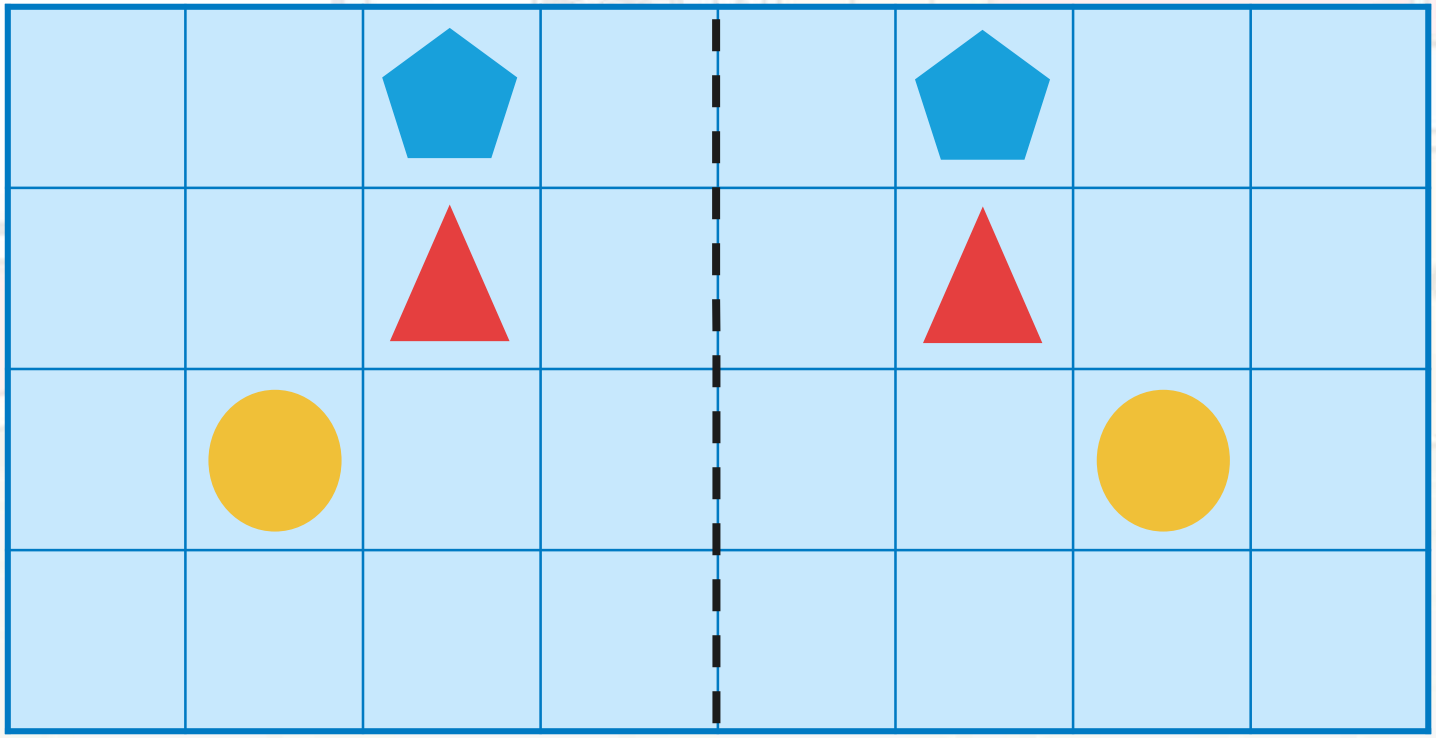
What would the other halves of these shapes look like if they were reflected along the dotted mirror line?



Complete a Symmetric Figure

Diving

Reflect this pattern along the dotted line:



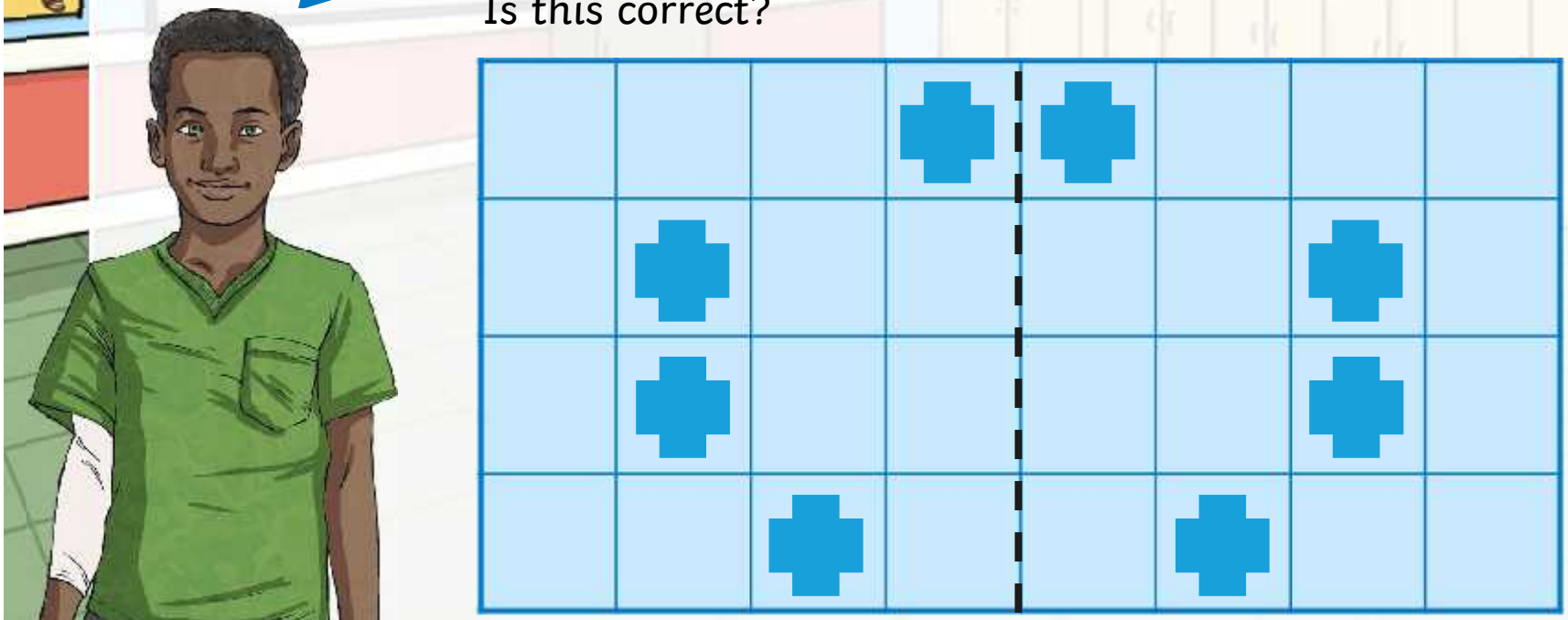
Complete a Symmetric Figure

Deeper

A symmetrical pattern on a grid **always** has a horizontal and vertical line of symmetry.

No. A shape or pattern on a grid can sometimes have both a horizontal and vertical line of symmetry, but not always – like this pattern here.

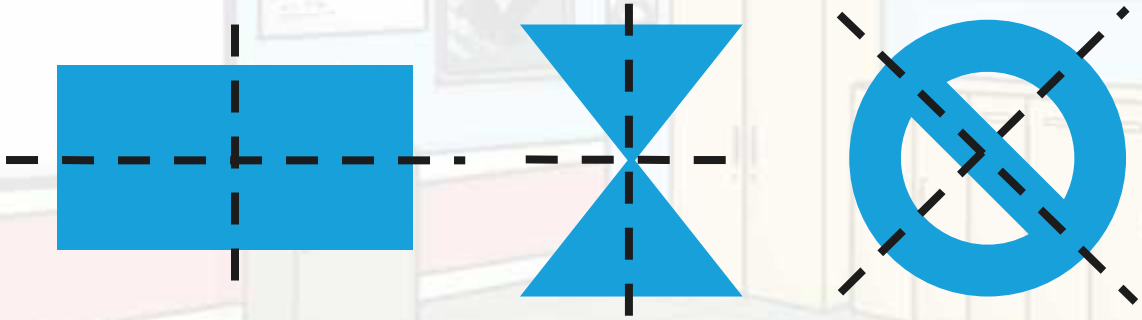
Is this correct?



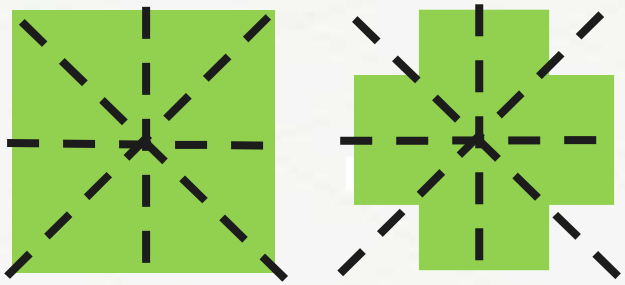
Complete a Symmetric Figure

Deeper

Can you name or draw shapes and simple patterns which have exactly two lines of symmetry?



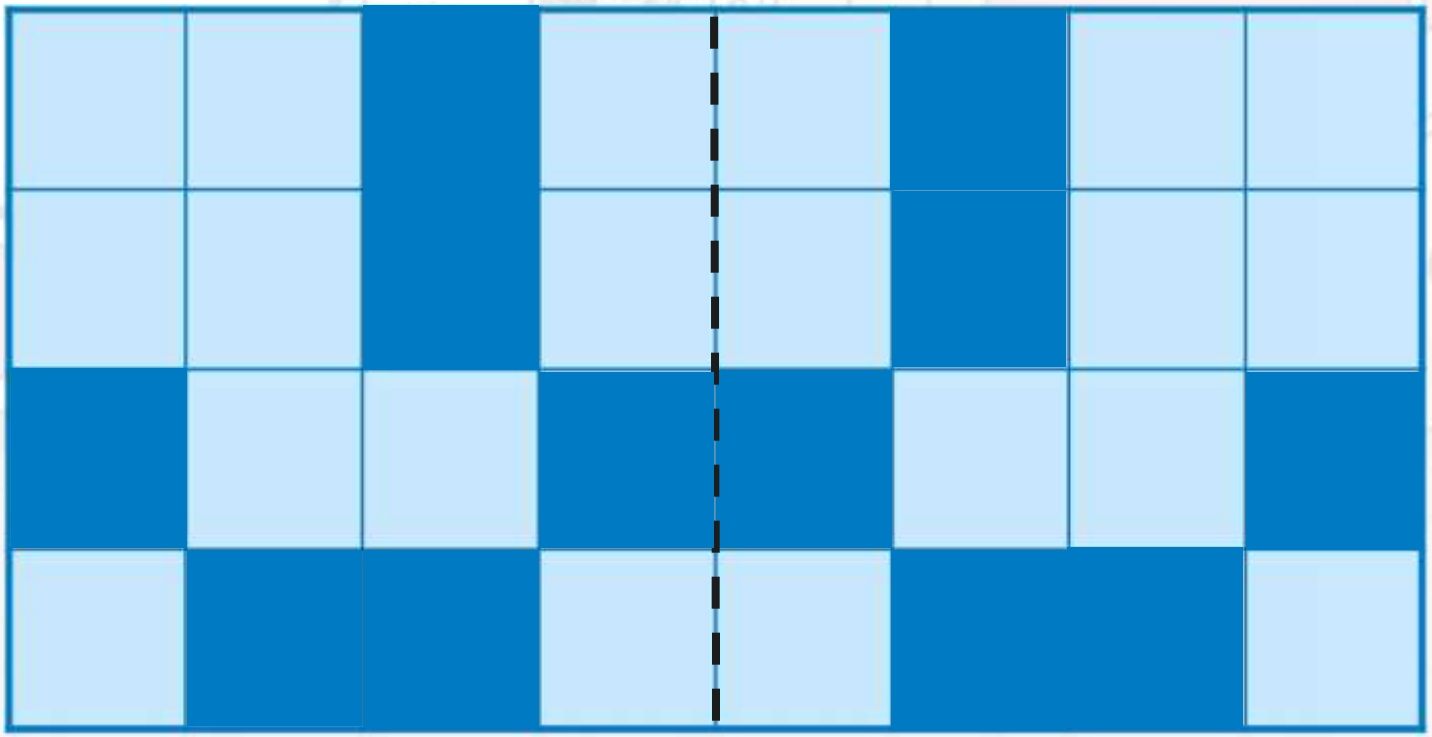
Remember that some shapes and patterns will have more than two lines of symmetry:



Complete a Symmetric Figure

Deepest

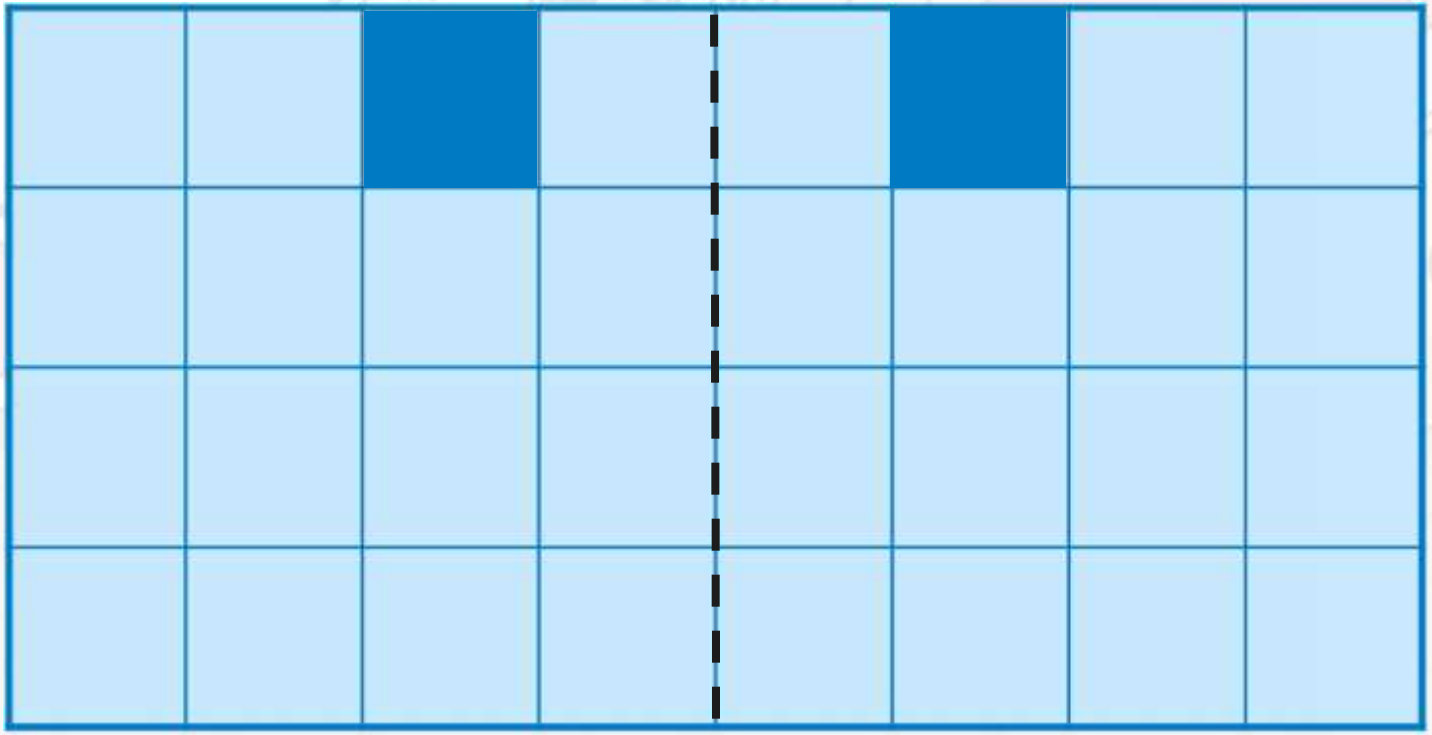
How would you shade in the squares to make this pattern symmetrical?



Complete a Symmetric Figure

Deepest

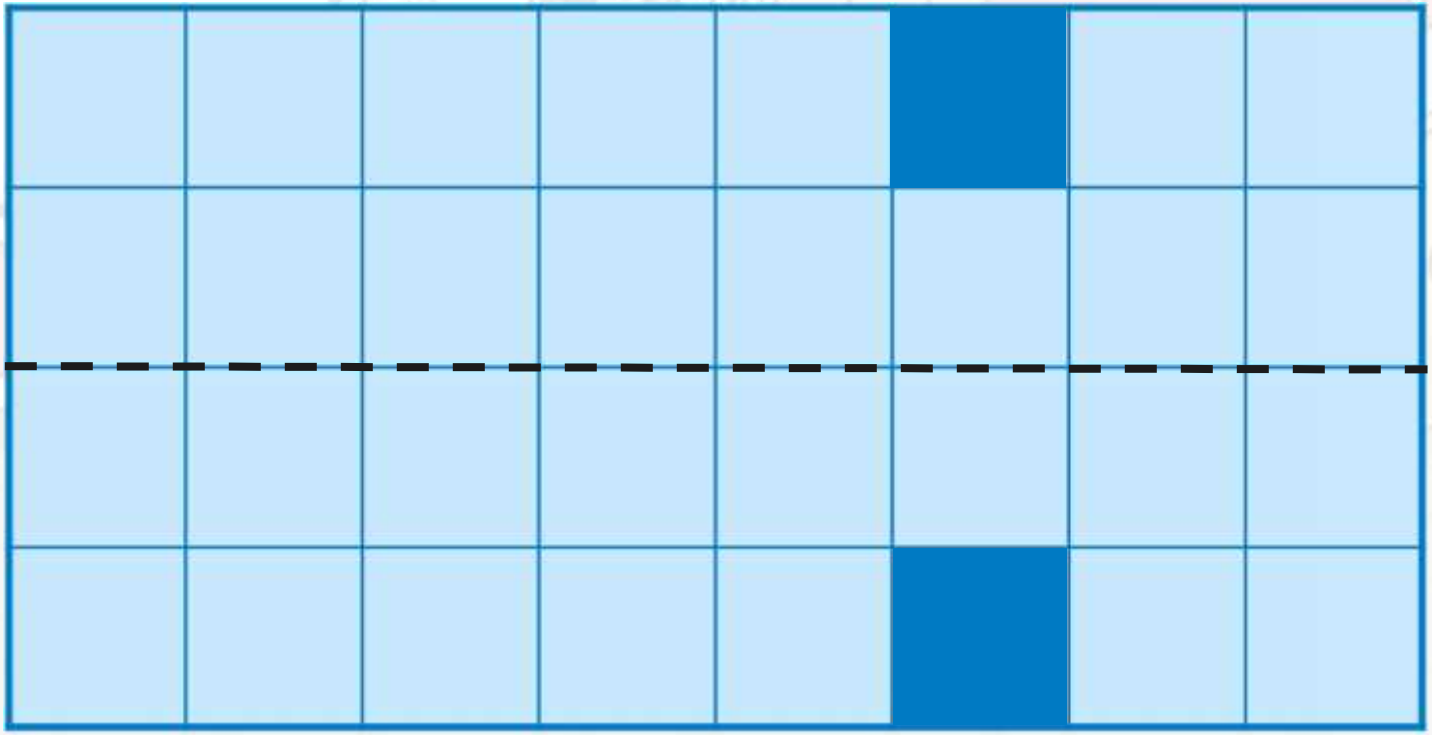
If the line of symmetry was vertical and in the centre of the grid, where would the shaded square be?



Complete a Symmetric Figure

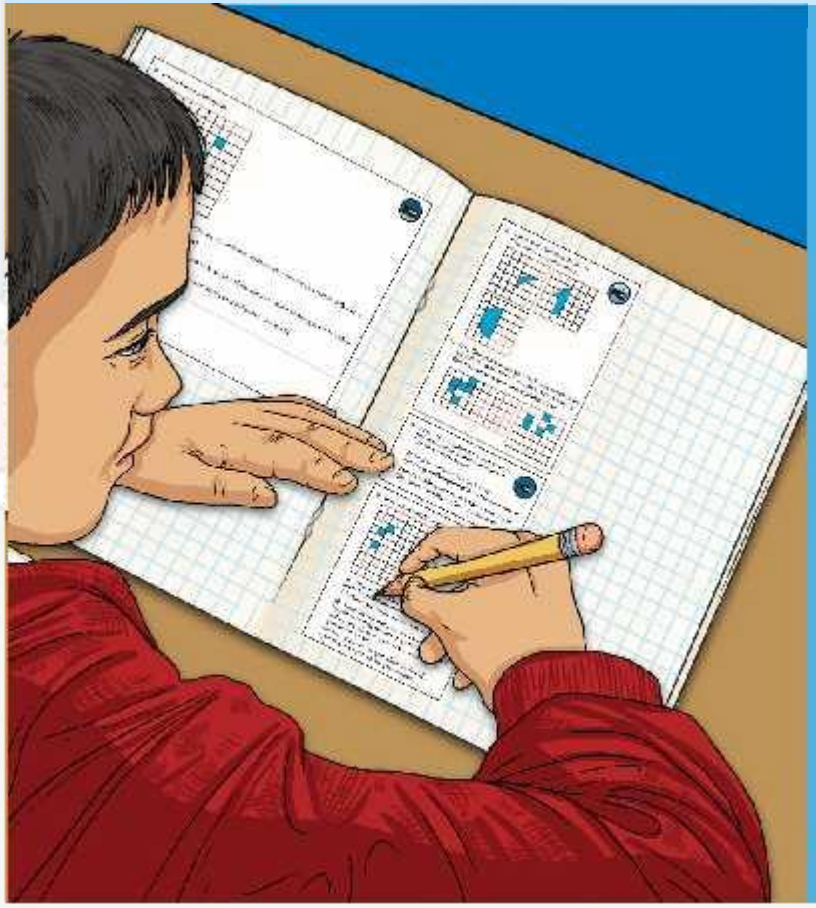
Deepest

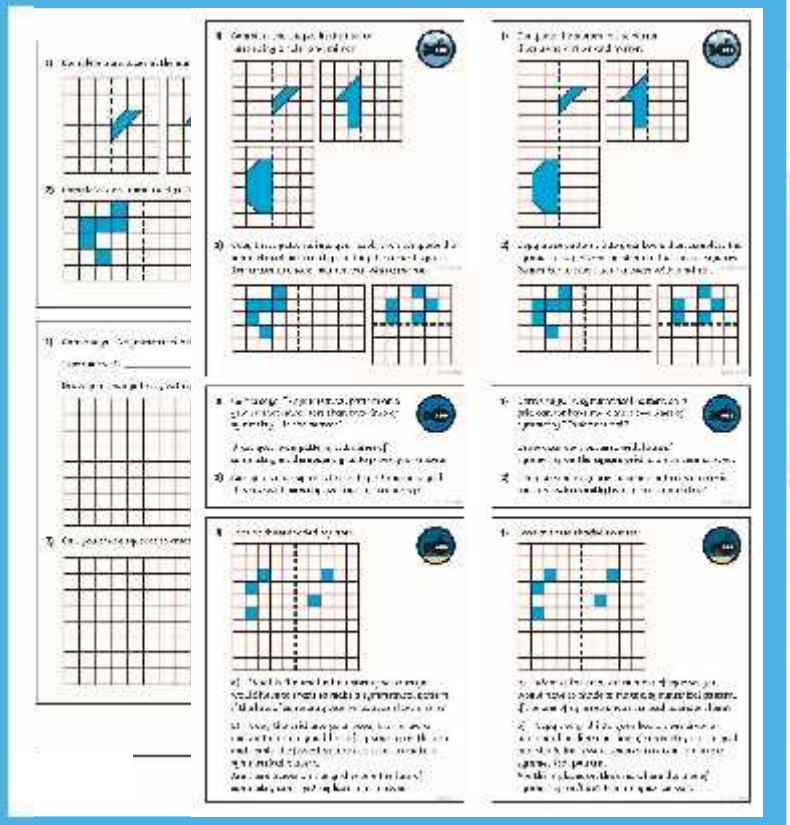
What if the line of symmetry was horizontal?

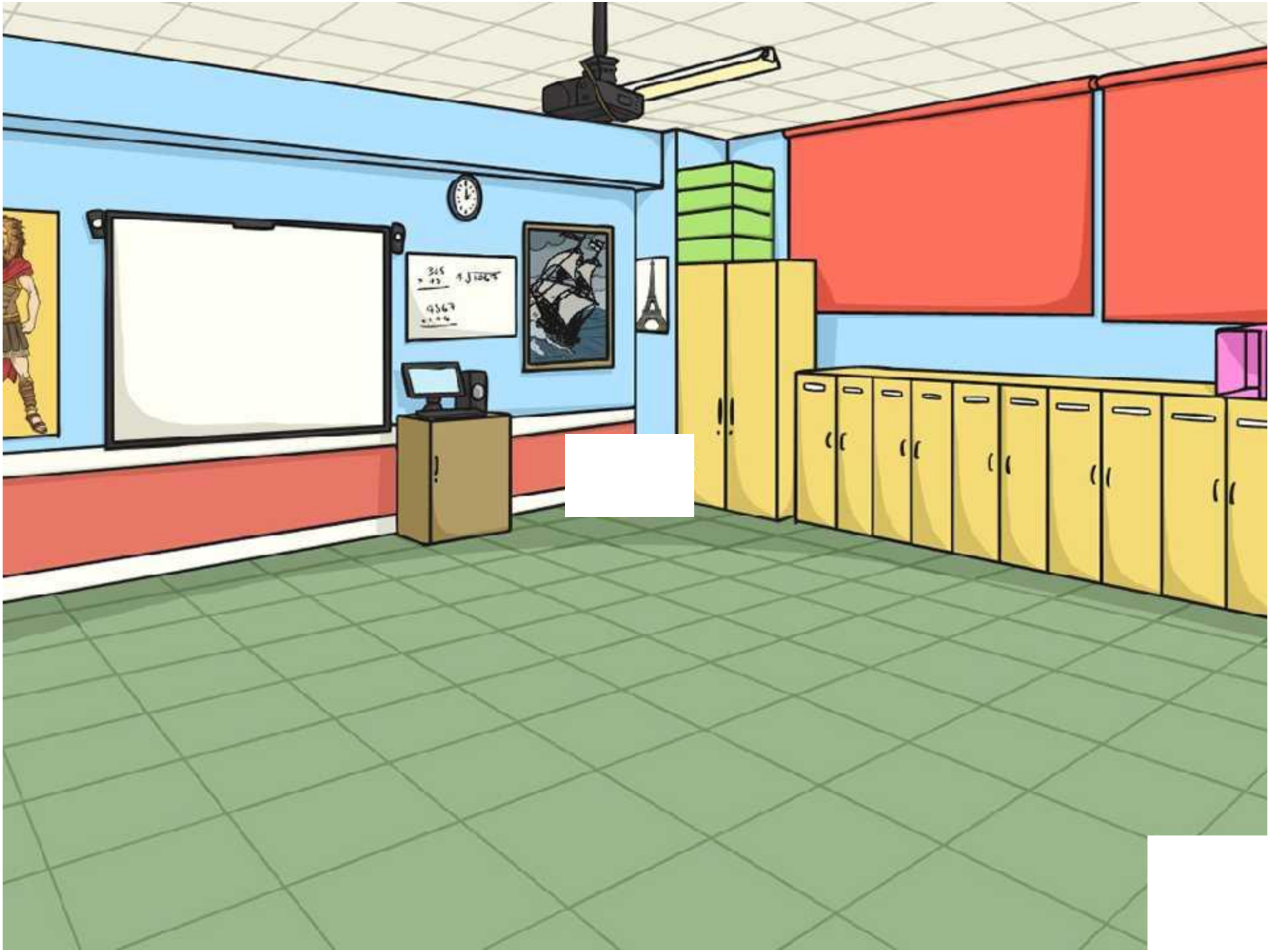


Complete a Symmetric Figure

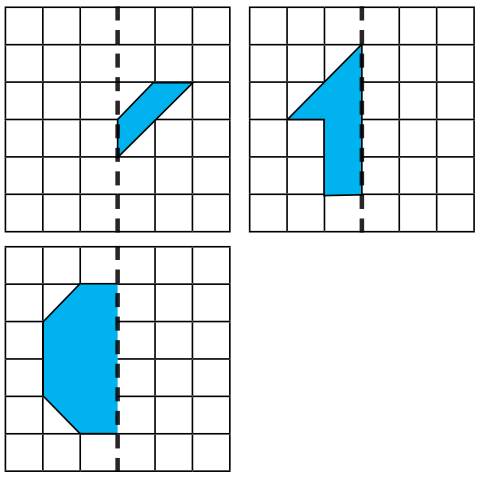
Dive in by completing your own activity!



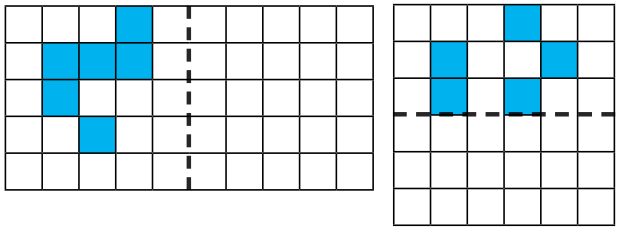




1) Complete the shapes in the mirror lines using a ruler and mirror:



2) Copy these patterns into your book, then complete the symmetrical patterns by shading the correct squares. Remember to check your answer with a mirror.

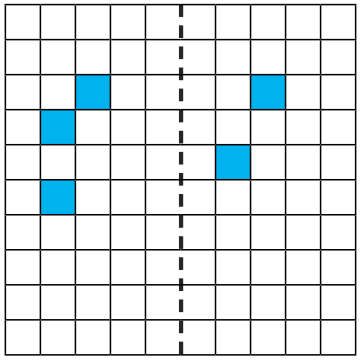


1) Carrie says, "A symmetrical pattern on a grid cannot have more than two lines of symmetry." Is she correct?

Draw your own pattern, with lines of symmetry, **on the square grid** to prove your answer.

2) Can you shade squares to create patterns on a grid this size with **exactly** two lines of symmetry?

1) Look at these shaded squares:



a) What is the smallest number of squares you would have to shade to make a symmetrical pattern, if the line of symmetry was vertical as shown here?

b) Copy the grid into your book, then draw a horizontal or diagonal line of symmetry on the grid and shade the fewest squares you can to make a symmetrical pattern.
Are there places on the grid where the line of symmetry can't go? Explain your answer.

1) Complete the shapes in the mirror lines using a ruler and mirror:

2) Copy these patterns into your book, then complete the symmetrical patterns by shading the correct squares.

1) Carrie says, "A symmetrical pattern on a grid cannot have more than two lines of symmetry." Is she correct?

Draw your own pattern, with lines of symmetry, **on the square grid** to prove your answer.

2) Can you shade squares to create patterns on a grid this size with **exactly** two lines of symmetry?

1) Look at these shaded squares:

a) What is the smallest number of squares you would have to shade to make a symmetrical pattern, if the line of symmetry was vertical as shown here?

b) Copy the grid into your book, then draw a horizontal or diagonal line of symmetry on the grid and shade the fewest squares you can to make a symmetrical pattern.
Are there places on the grid where the line of symmetry can't go? Explain your answer.