



**THIRD SPACE**  
LEARNING

# Ready-to-go Lesson Slides

## Year 2

Please note:  
Paper shapes for folding may be  
useful for this lesson.

### Geometry: Properties of Shapes

### Lesson 5

Spr3

**At Third Space Learning we provide personalised online lessons from specialist maths tutors to support the target groups in your school.**

These ready-to-go slides are designed to work alongside our interventions to supplement quality first teaching and raise attainment in maths for all pupils.

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020 3771 0095

[hello@thirdspacelearning.com](mailto:hello@thirdspacelearning.com)

**Boosting maths progress through 1-to-1 conversations...**



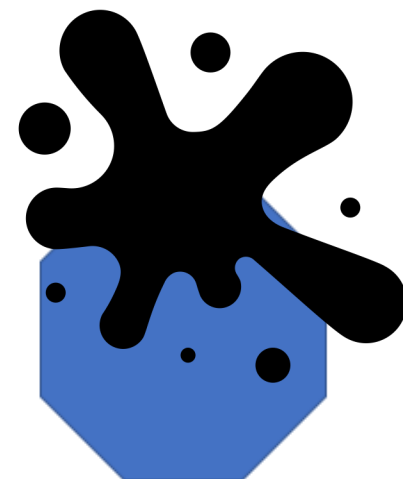
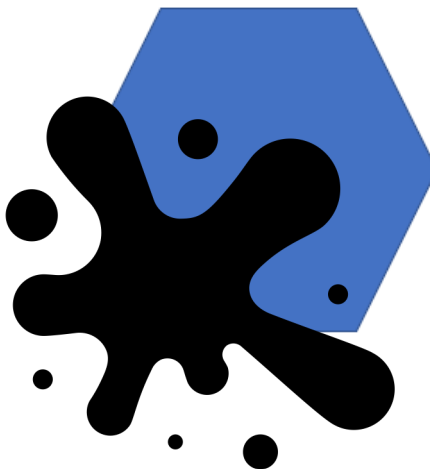
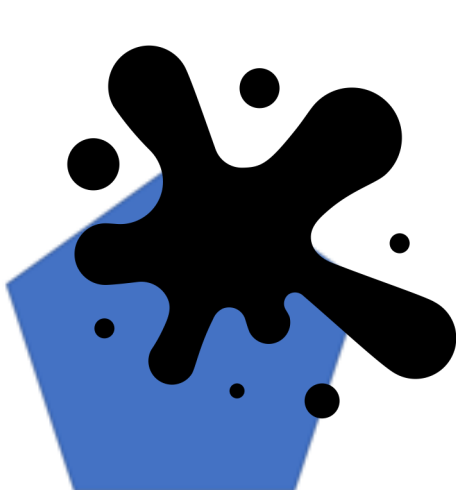
# To fold and draw vertical lines of symmetry

**Success Criteria:**

- ☐ I know what symmetry is
- ☐ I know what vertical means
- ☐ I can check if a shape has a vertical line of symmetry by using mirrors or folding paper

**Starter:**

Here are some regular 2-D shapes that have been 'splatted'.  
Can you work out which shapes they are and why?



# To fold and draw vertical lines of symmetry

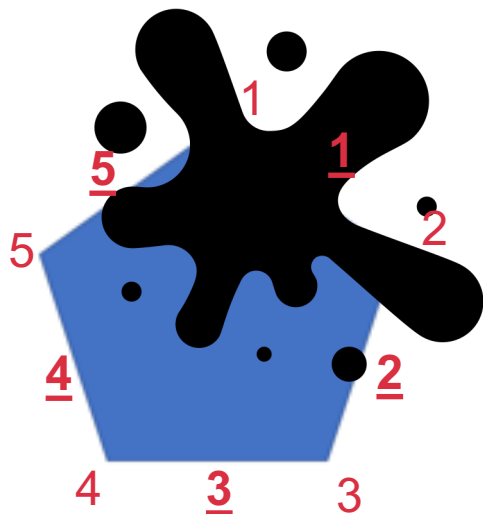
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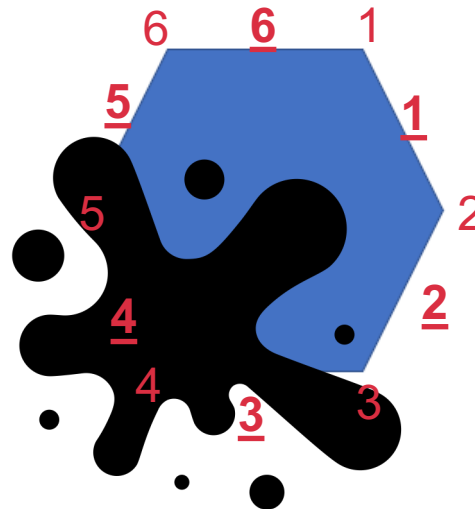
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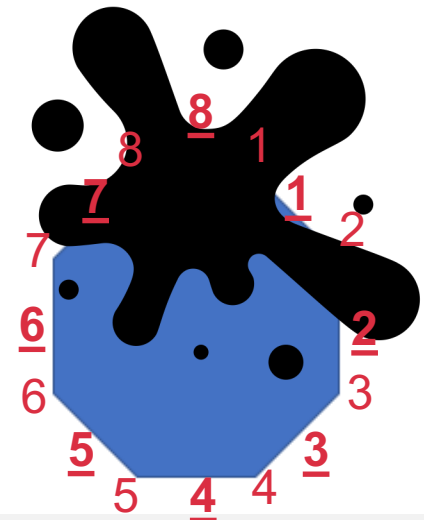
This is a pentagon.  
It has 5 sides and 5 vertices.



This is a hexagon.  
It has 6 sides and 6 vertices.



This is an octagon.  
It has 8 sides and 8 vertices.



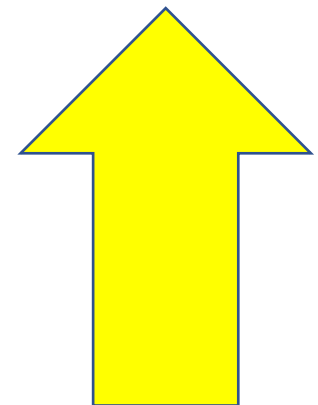
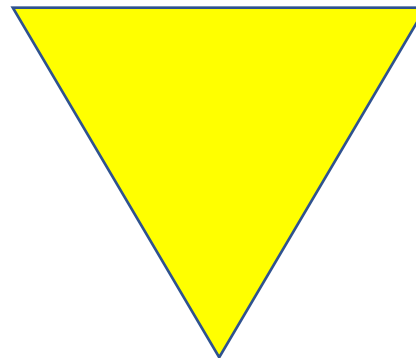
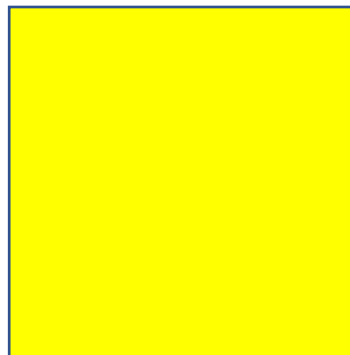
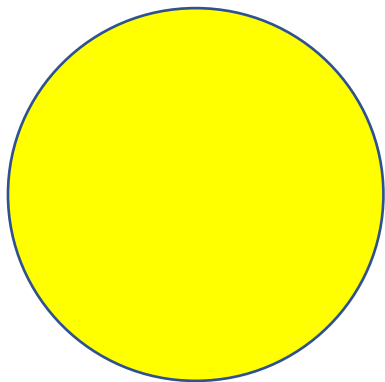
# To fold and draw vertical lines of symmetry

## Talking Time:

Here are four shapes.

You will need to have copies of these on paper so that you can fold them.

Can you fold the shapes to find their vertical line of symmetry?



*Reminder: vertical means*



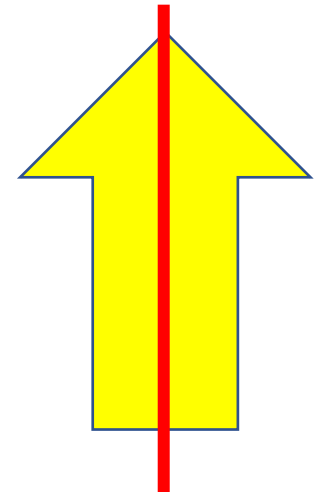
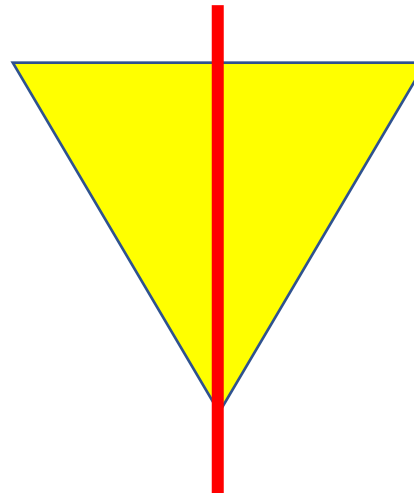
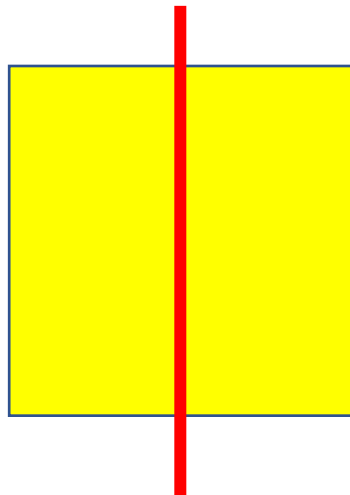
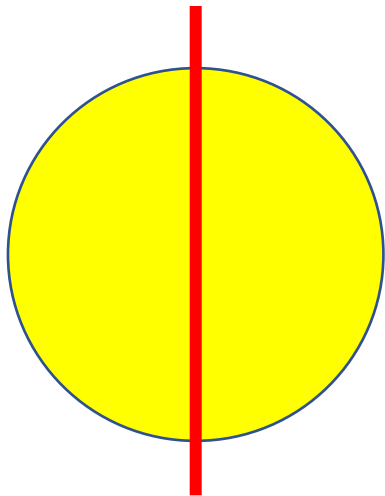
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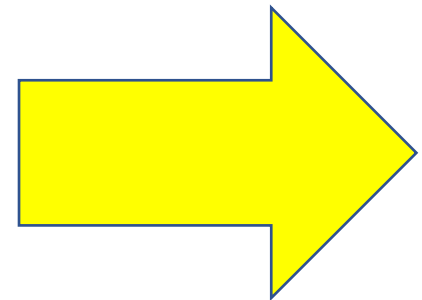
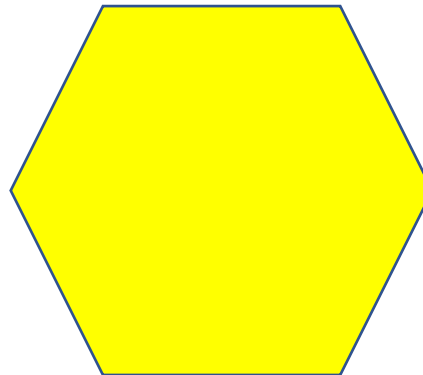
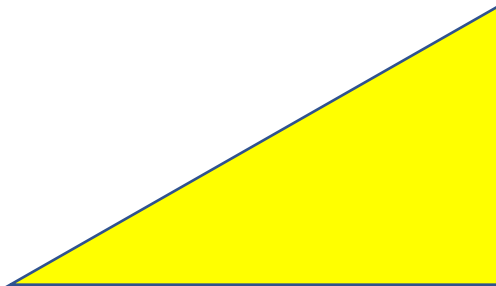
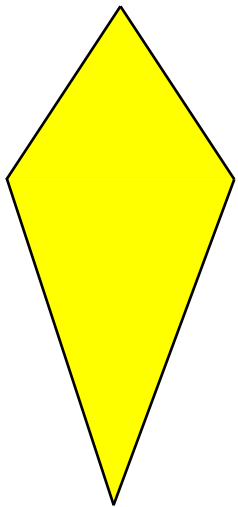
## Talking Time:

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Which of these shapes have a vertical line of symmetry?

Which ones do not?



# To fold and draw vertical lines of symmetry

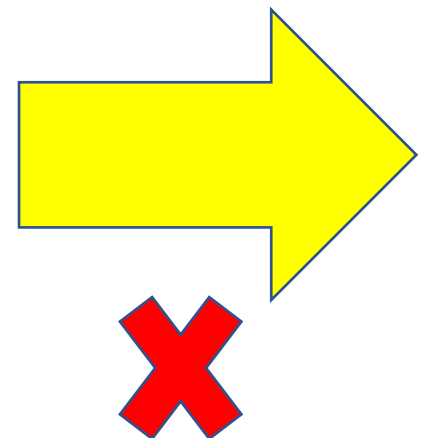
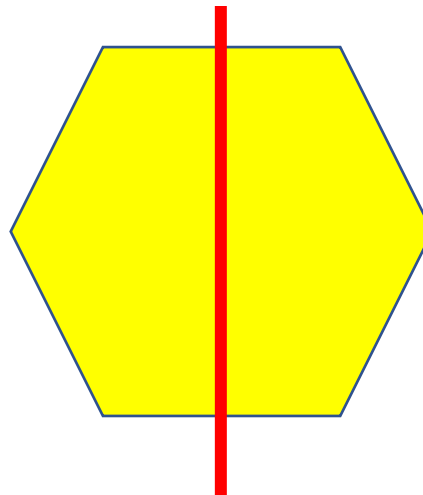
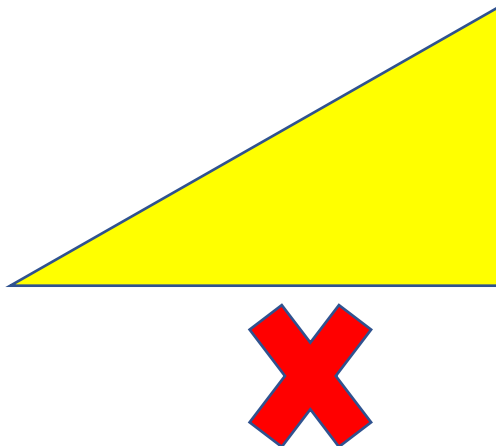
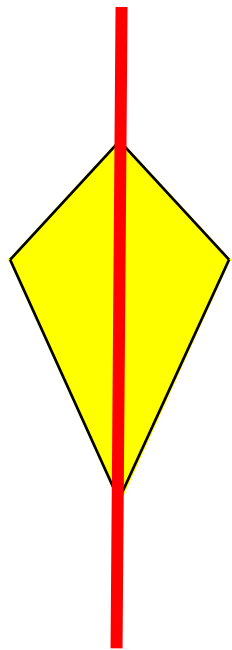
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# To fold and draw vertical lines of symmetry

## Activity 1:

Evie has placed a mirror on this shape's vertical line of symmetry.

This is what Evie can see.

Can you draw the other half of the shape?

What is the name of the shape that you have drawn?



# To fold and draw vertical lines of symmetry

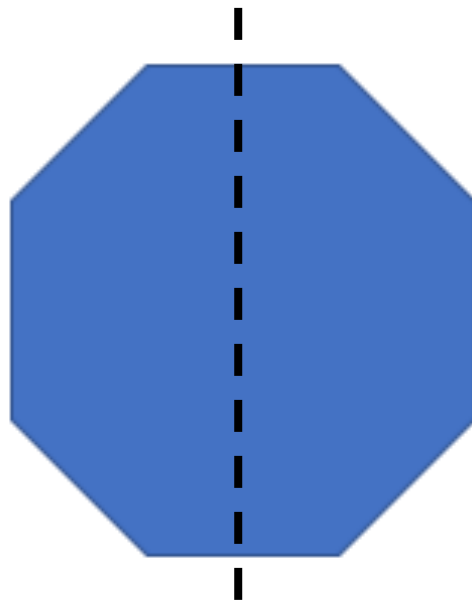
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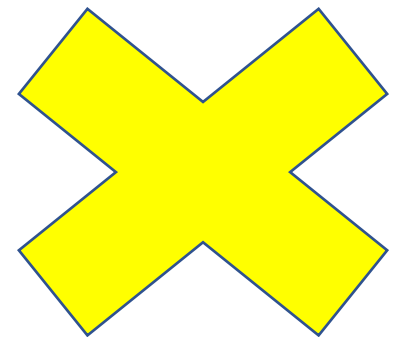
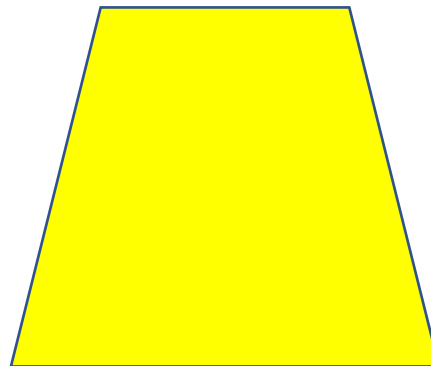
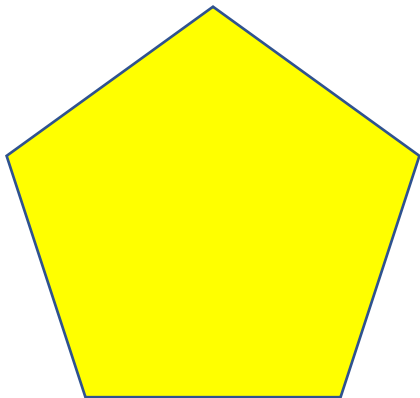
You will have drawn an octagon.

*You could check your answer by folding an octagon along its vertical line of symmetry.*

# To fold and draw vertical lines of symmetry

## Talking Time:

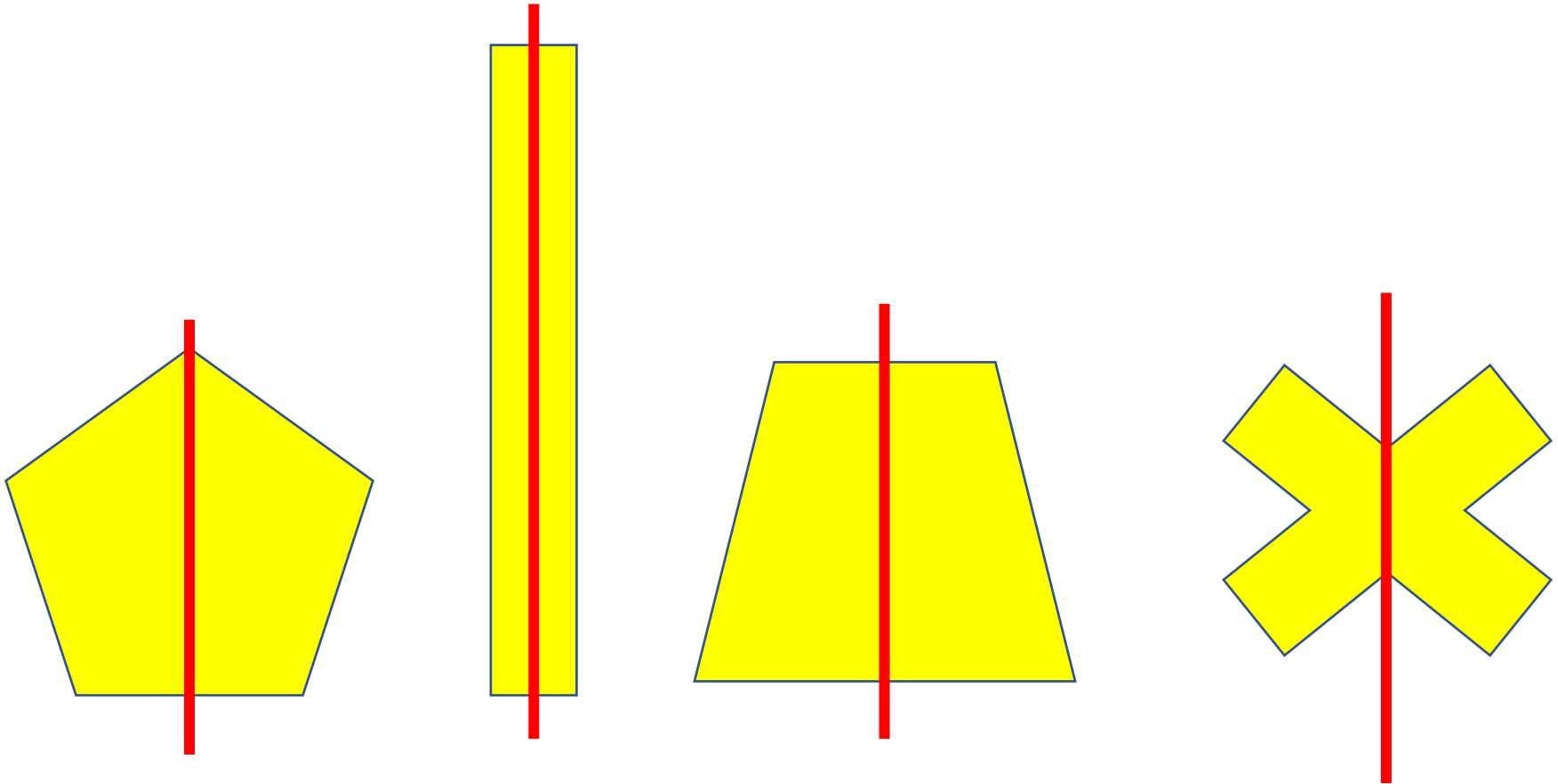
All of these shapes have a vertical line of symmetry.  
Can you draw the line of symmetry on each shape?



# To fold and draw vertical lines of symmetry

## Talking Time:

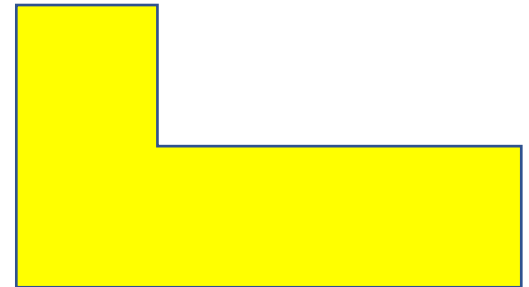
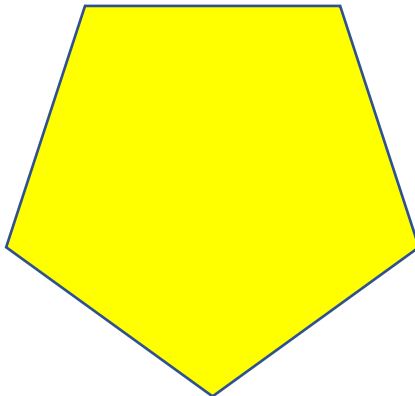
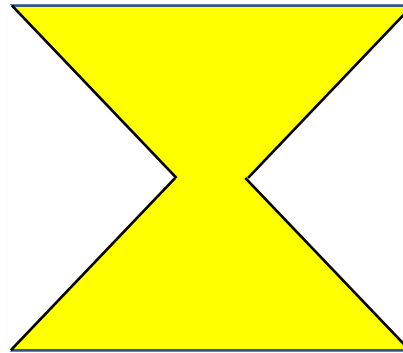
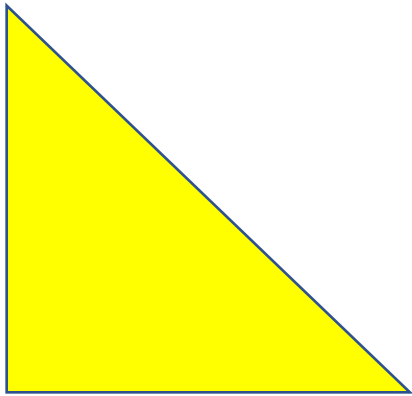
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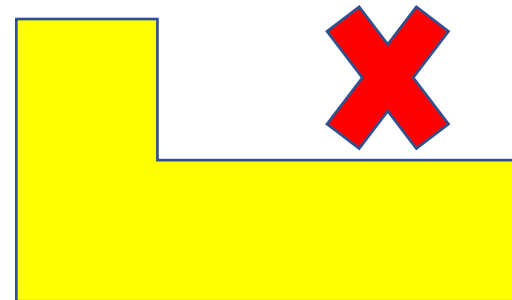
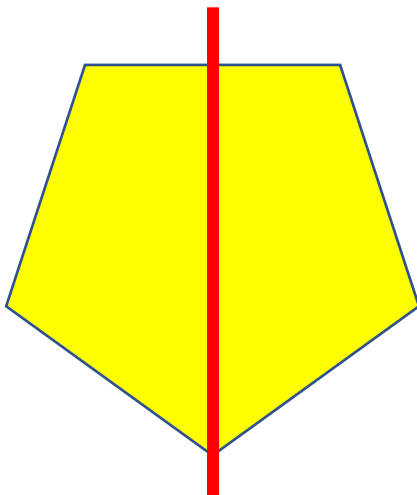
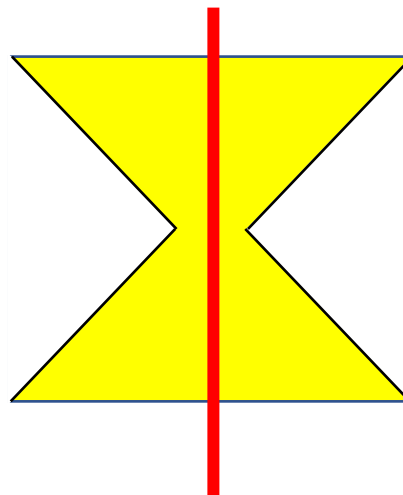
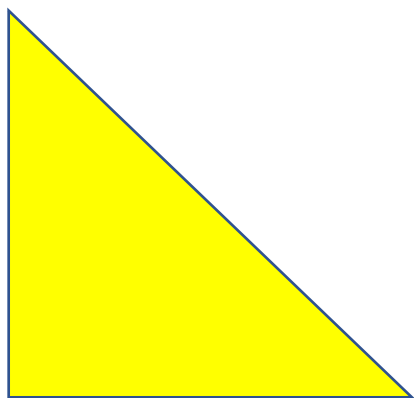
Which of these shapes have a vertical line of symmetry?  
Can you draw the vertical line of symmetry on each shape that does?



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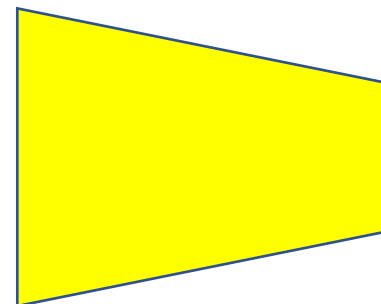
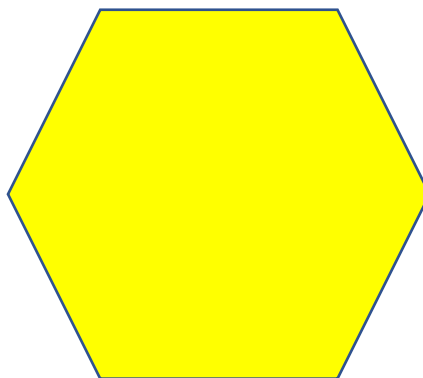
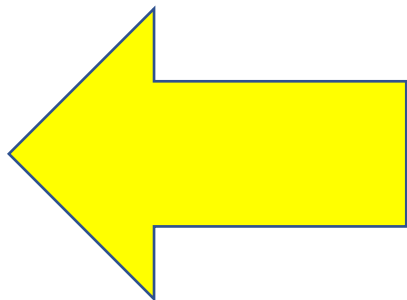
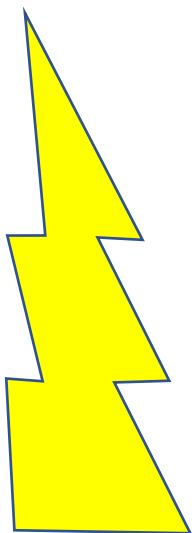
# To fold and draw vertical lines of symmetry

## Talking Time:

Only one of these shapes has a vertical line of symmetry.

Can you work out which one it is?

Can you draw in the line of symmetry to prove that you are right?



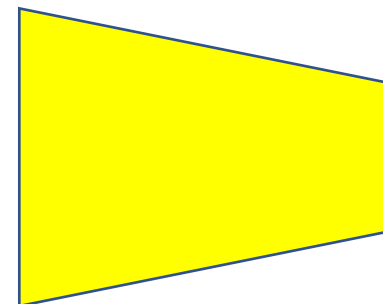
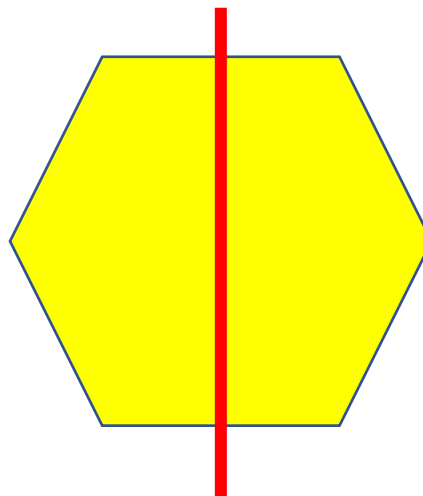
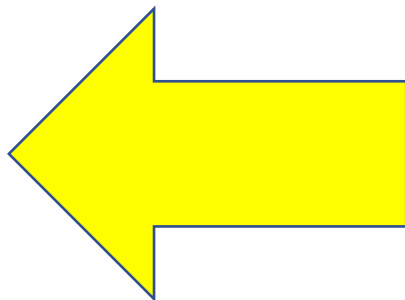
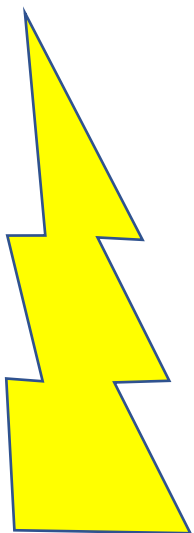
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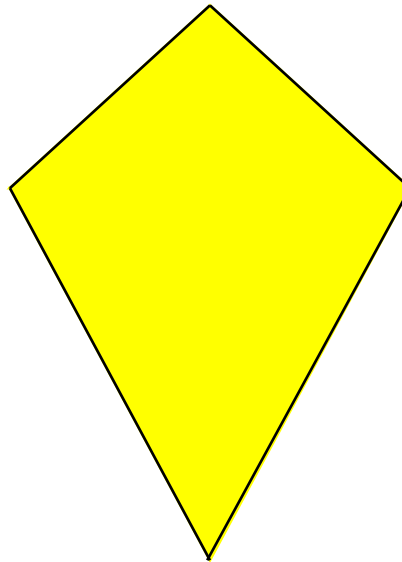


# To fold and draw vertical lines of symmetry

## Activity 2:



Riley draws a vertical line of symmetry on this shape. He then cuts along the line with scissors. Which shapes will Riley have when he has cut along the vertical line of symmetry?

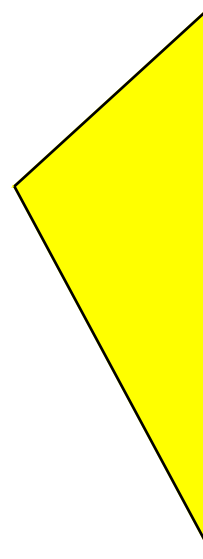
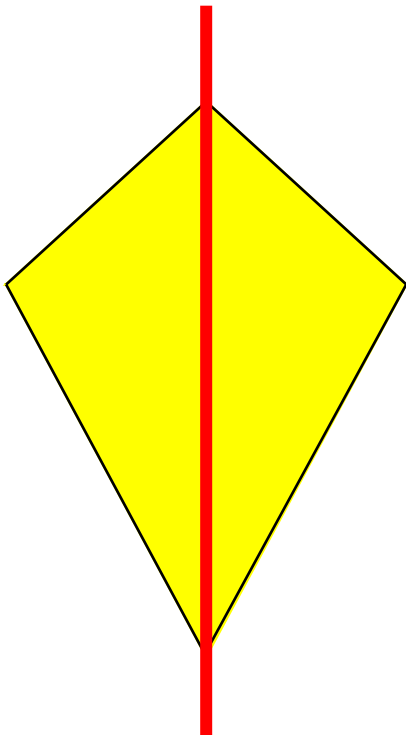


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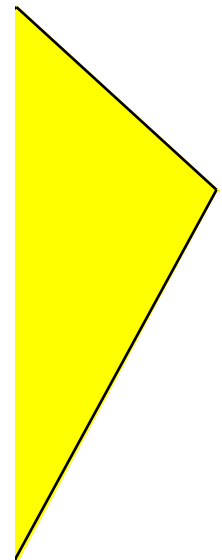
## Activity 2:



Riley draws a vertical line of symmetry on this shape. He then cuts along the line with scissors. Which shapes will Riley have when he has cut along the vertical line of symmetry?



Riley will have  
two triangles.



# To fold and draw vertical lines of symmetry

## Talking Time:

This shape has a vertical line of symmetry, but the line is in the wrong place.

Can you change the position of the vertical line of symmetry so that it is in the right place?



*You could prove your answer by folding.*

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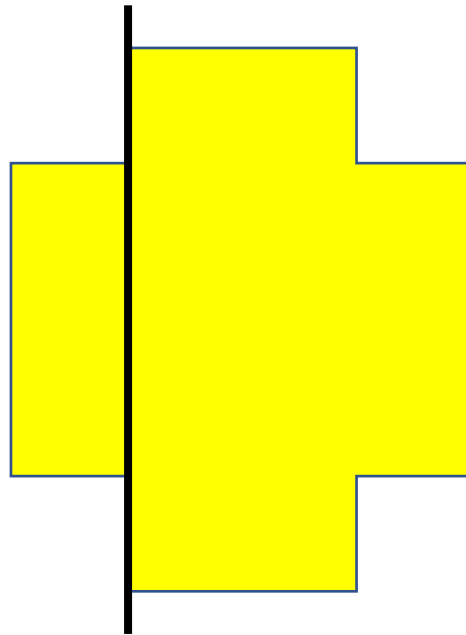
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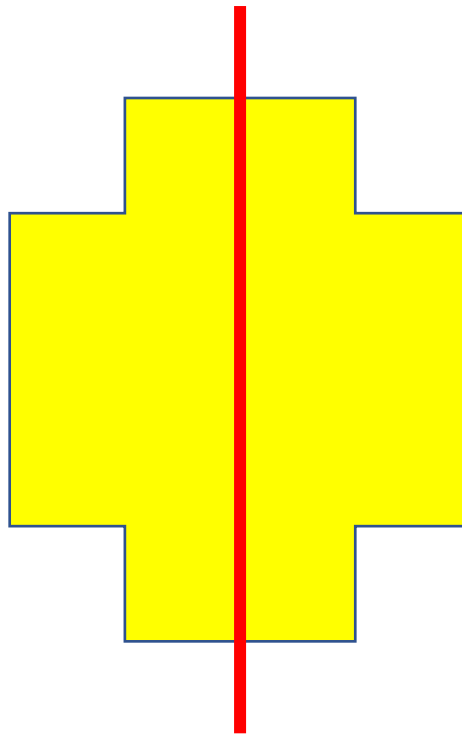


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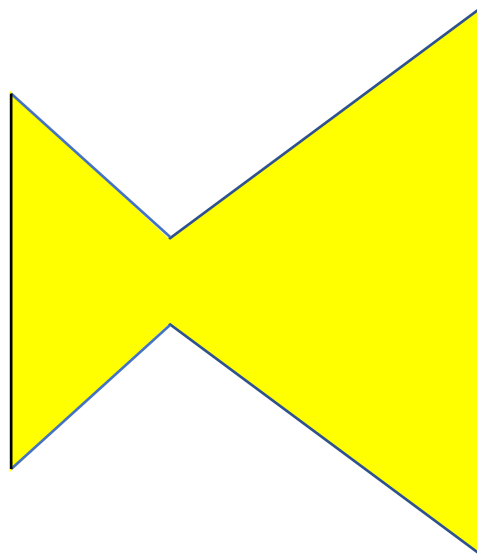
# To fold and draw vertical lines of symmetry

## Talking Time:

Does this shape have a vertical line of symmetry?

Why? Why not?

Can you explain your thinking?



# To fold and draw vertical lines of symmetry

## Talking Time:

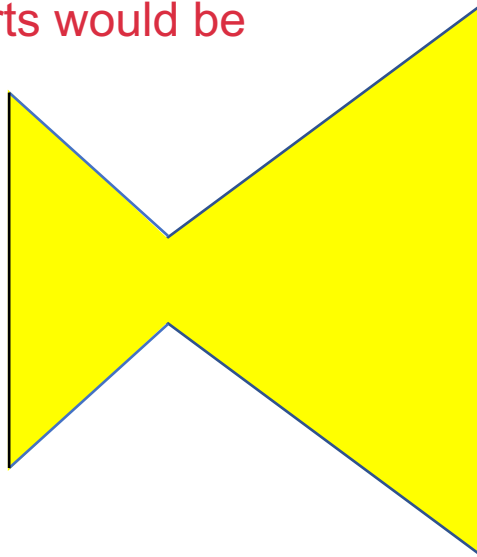
Does this shape have a vertical line of symmetry? **No.**

Why? Why not?

Can you explain your thinking?

This irregular hexagon does not have a vertical line of symmetry. The two parts would be different sizes.

It DOES have a horizontal line of symmetry.



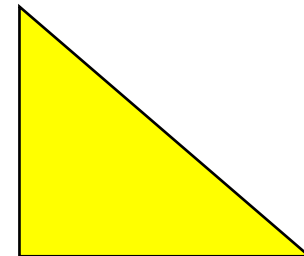


# To fold and draw vertical lines of symmetry

## Activity 3:

Can you draw **three** different triangles that have a vertical line of symmetry?

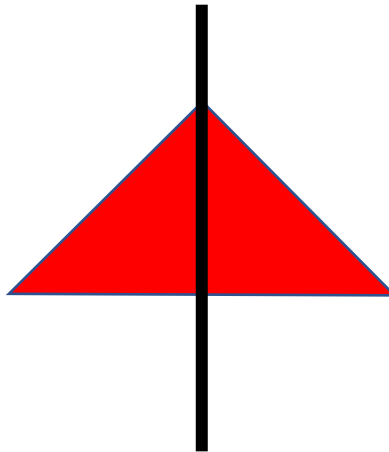
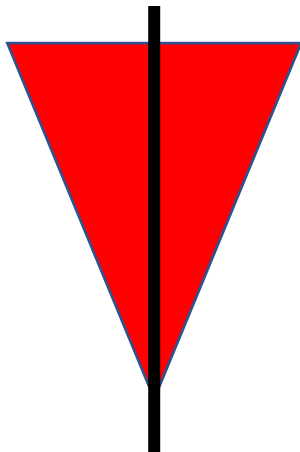
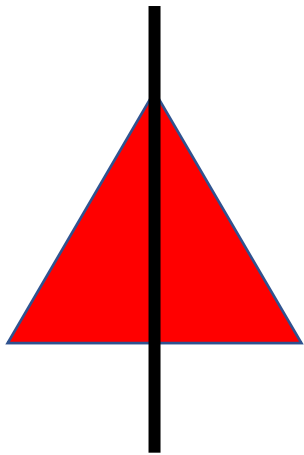
Does this triangle have a vertical line of symmetry?  
Why? Why not?



# To fold and draw vertical lines of symmetry

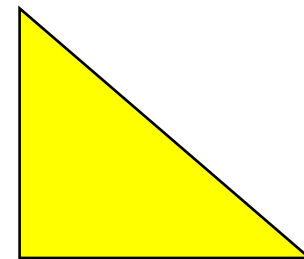
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Does this triangle have a vertical line of symmetry? **No.**  
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This triangle does not have a vertical line of symmetry.  
The two parts would be different sizes.



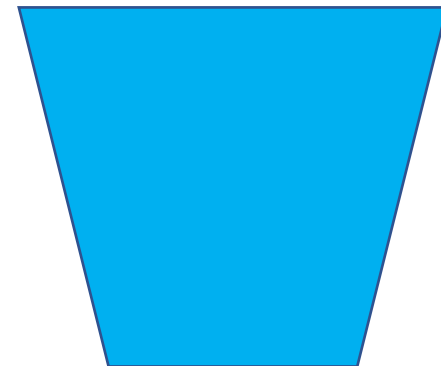
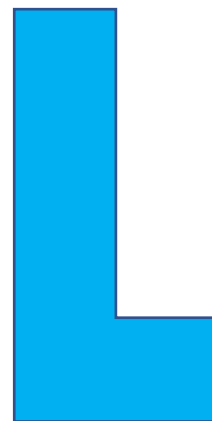
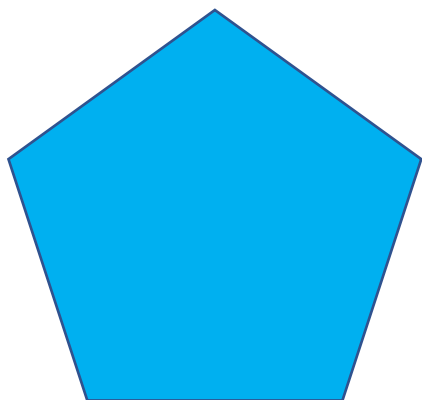
# To fold and draw vertical lines of symmetry

## Evaluation:

Thinking about symmetry, which of these shapes is the odd one out?

Why?

Can you explain your thinking?



# To fold and draw vertical lines of symmetry

## Success Criteria:

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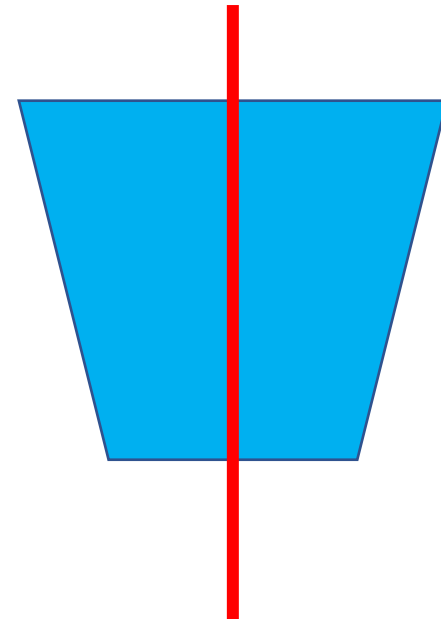
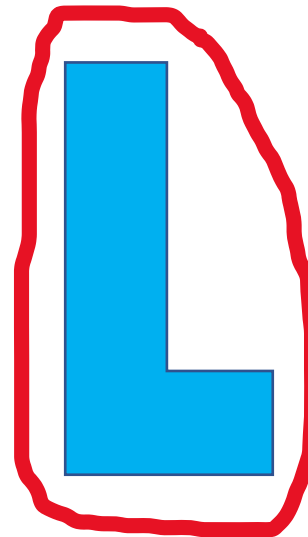
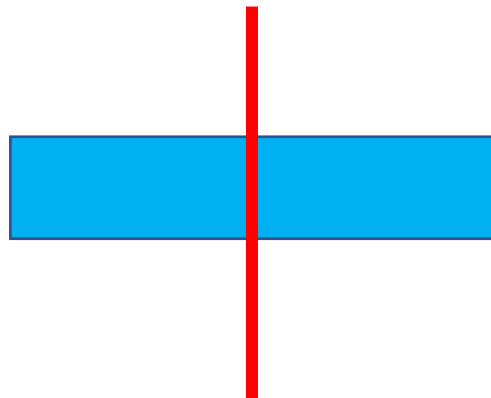
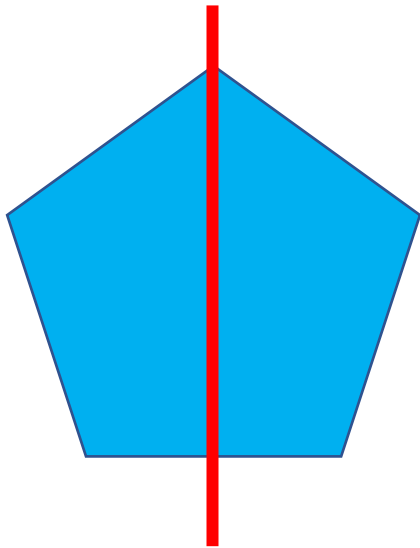
## Evaluation:

Thinking about symmetry, which of these shapes is the odd one out?

The irregular hexagon is the odd one out.

Why?

Can you explain your thinking? The irregular hexagon is the only one without a vertical line of symmetry.






## Do you have a group of pupils who need a boost in maths this term?

Each pupil could receive a personalised lesson every week from our specialist 1-to-1 maths tutors.

- Raise attainment
- Plug any gaps or misconceptions
- Boost confidence

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-  0203 771 0095
-  [hello@thirdspacelearning.com](mailto:hello@thirdspacelearning.com)