



Y3 M6c Can identify horizontal lines of symmetry in 2-D shapes

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Teachers' Notes

- ❑ The PiXL therapies can be taught to a whole class or a target group. Year 3-5 therapies are designed to take approximately 30-40 minutes. However, this is flexible: it may be that only part of the therapy is taught or it could, of course, be adapted or extended.
- ❑ Each therapy begins with a LORIC activity to develop relevant learning behaviours.
- ❑ This is followed by a vocabulary task, which uses the PiXL 5-phase approach to teach key mathematical vocabulary. Further resources to develop vocabulary can be found in the Whole School area.
- ❑ Each therapy adopts the 'Teach, model and apply' process with opportunities for pupils to demonstrate the taught skill independently.
- ❑ Problem solving and reasoning activities are an integral part of each therapy.

Progress across amber – the 4-stage model

The three therapy tests which accompany this resource can be used to revisit the taught skill to check that the pupil is able to perform it independently and consistently.

A

A child has successfully completed a therapy test independently, following a set of therapy sessions.

A

A child has successfully completed a therapy test independently, a period after the relevant therapy sessions – we would advise about 2 weeks.

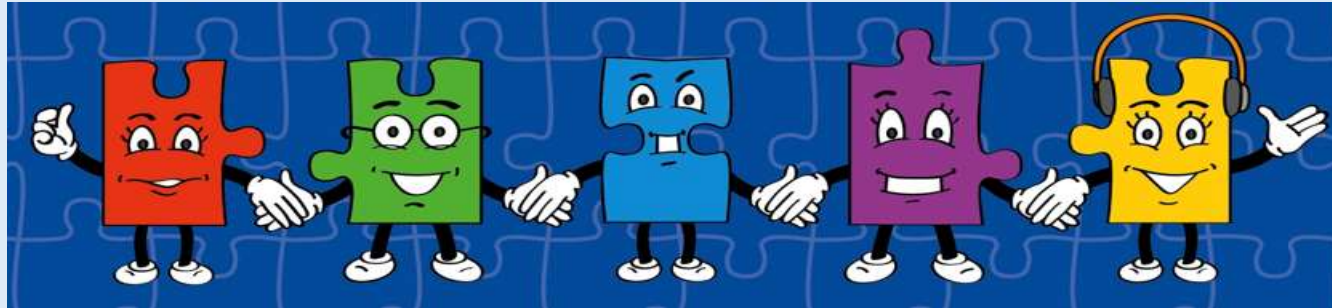
DA

A child has successfully applied their knowledge or skill in an unfamiliar context. This may be application across the curriculum or in a problem.

G

A pupil has successfully re-visited the skills at a later point, and applies these in an unfamiliar context or problem, or across the curriculum.

LORIC task

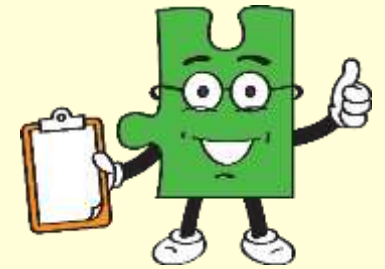


Our Primary Edge attributes help us to become better learners and today is no exception. Before you start this activity, here are some ideas for how you will need your Olly Organisation skills today:

- Make decisions.
- Problem solve.
- Think strategically.

LORIC task

Decide how to sort the following shapes using a range of properties:



square

circle

cuboid

triangle

pentagon

square-based pyramid

sphere

triangular-based pyramid

octagon


trapezium

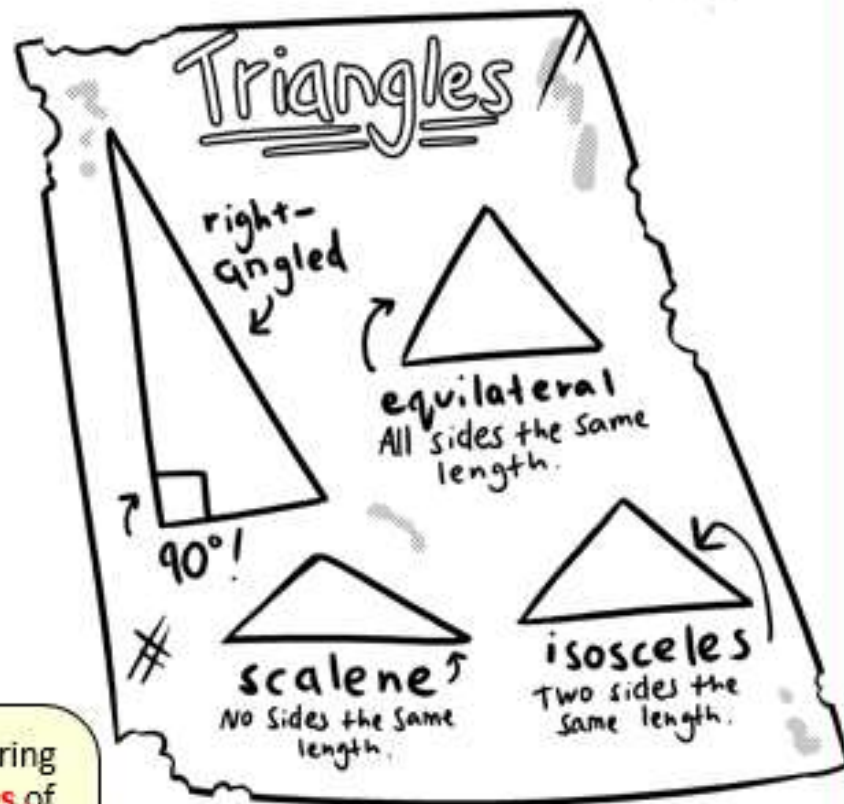
Can you think of any more to add to your categories?

Vocabulary activity

symmetry
horizontal

DEFINE IT/USE IT

<p>Word:</p>		<p>Synonym: _____</p>
<p>Picture:</p>		<p>Antonym: _____</p>
		<p>My definition: _____</p> <p>_____</p> <p>_____</p>
		<p>Used in context: _____</p> <p>_____</p> <p>_____</p>



When comparing the **properties** of **3D shapes**, we need to look for:

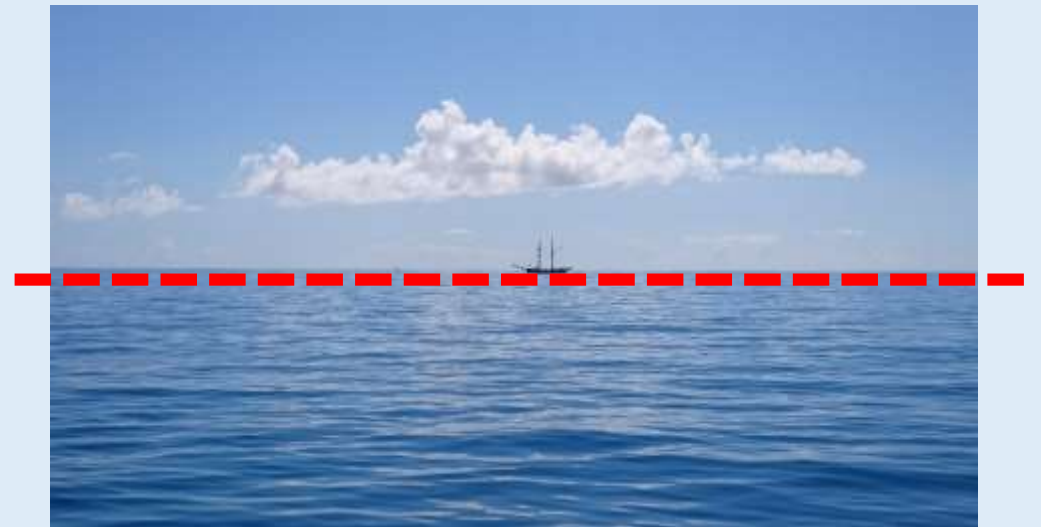
- faces
- edges
- vertices



Teach

To identify **horizontal lines of symmetry**, it is important to understand key vocabulary.

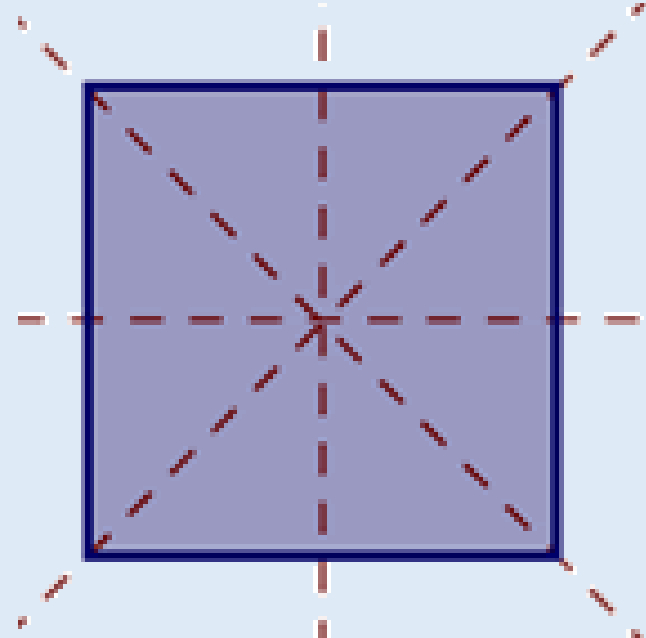
A **horizontal line** is a line that runs right to left across the page. It comes from the word 'horizon', in the sense that horizontal lines are parallel to the horizon.



Teach

To identify **horizontal lines of symmetry**, it is important to understand key vocabulary.

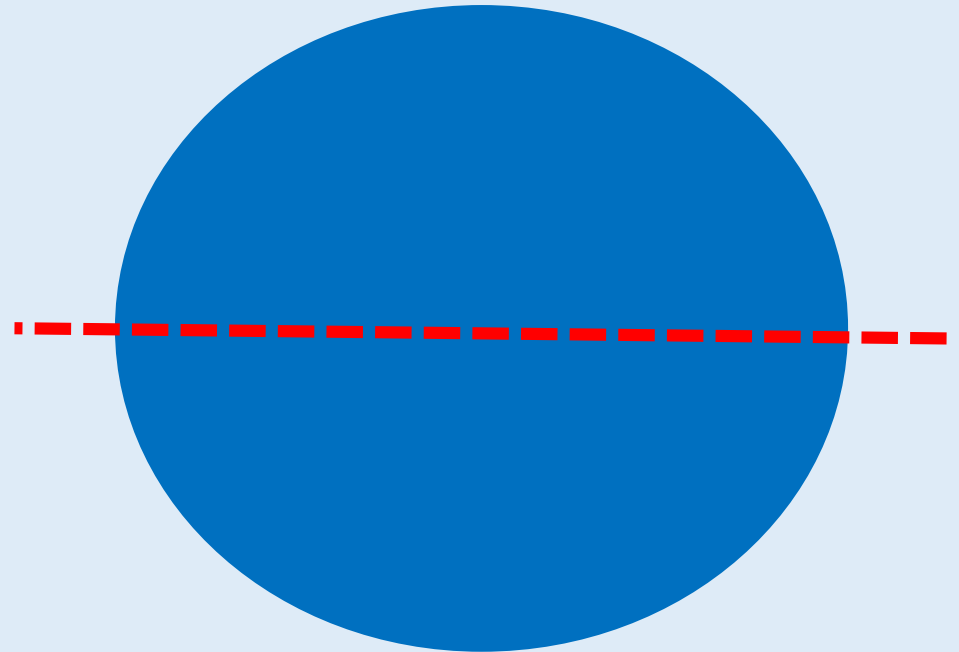
Symmetry is where one half of the shape is the **reflection** of the other half. This means you could fold the shape and **both halves match exactly**.



Teach

To identify **horizontal lines of symmetry**, it is important to understand key vocabulary.

This is an example of a **horizontal line of symmetry** in a 2-D shape.

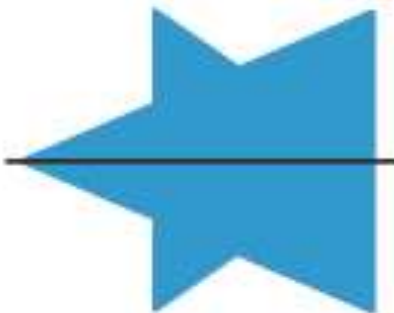


Model

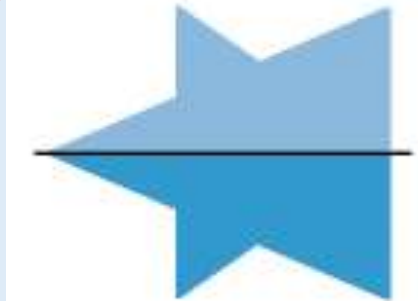
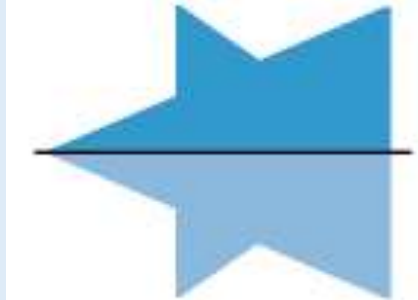
A mirror can also be used to identify a line of symmetry.



These are examples of **horizontal lines of symmetry** in a 2-D shape.



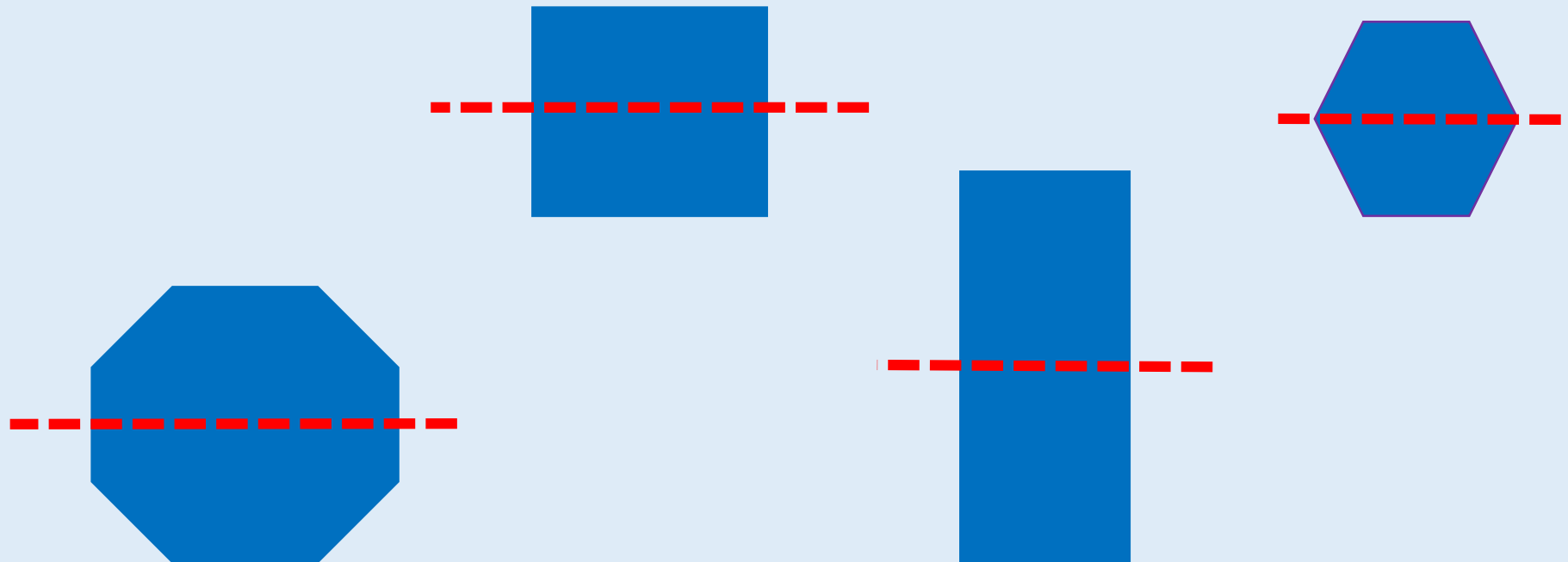
The lighter blue side shows the mirrored reflection.



Model

Regular polygons (where all of the sides are equal in length) will always have **at least one line of symmetry**.

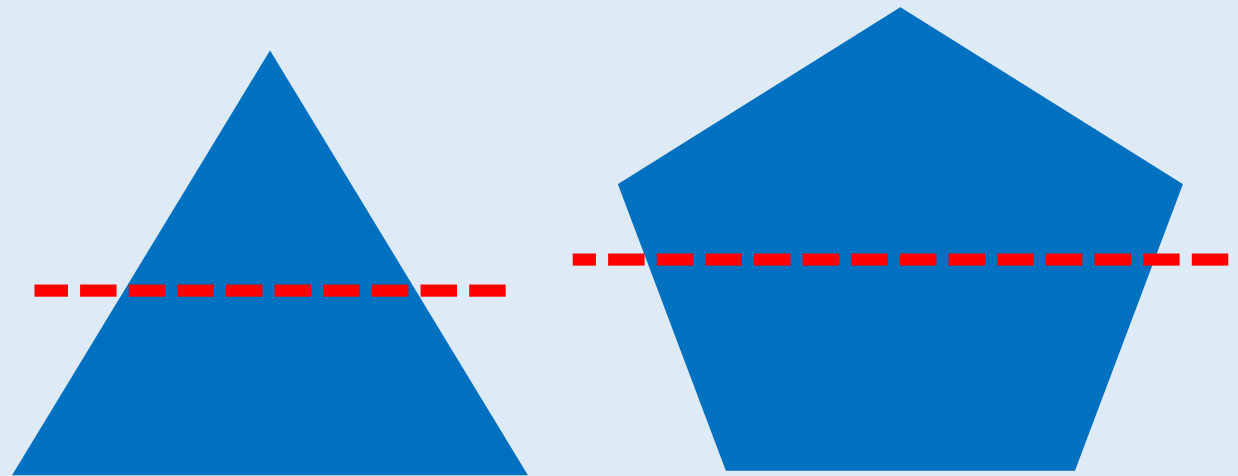
Here are some examples of **regular polygons** with a **horizontal line of symmetry**.



Model

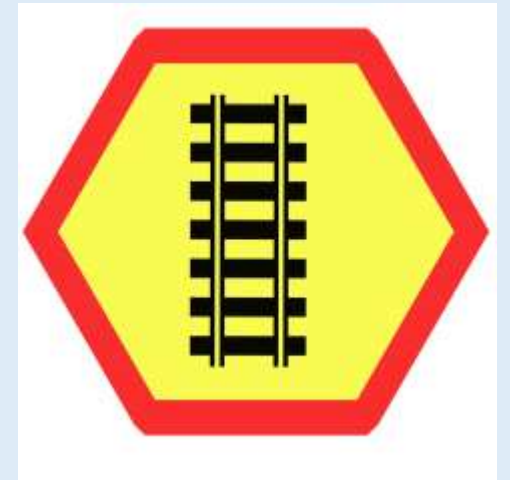
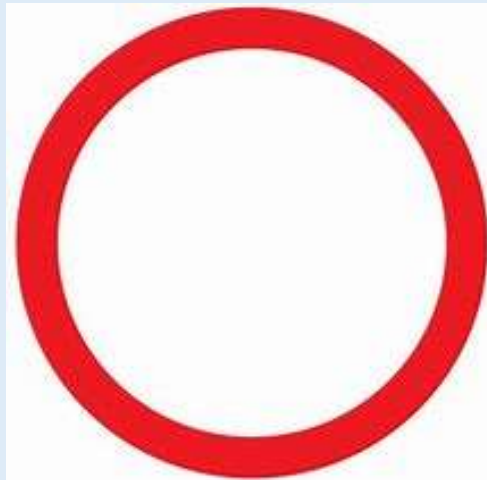
Regular polygons (where all of the sides are equal in length) will always have **at least one line of symmetry**.

Sometimes, shapes will not have a **horizontal line of symmetry**. They are **not** the same shape either side of the **horizontal line**.



Apply

Identify the **2-D shapes** which have a **horizontal line of symmetry**.



Apply

Henry has drawn a **hexagon** with a **horizontal line of symmetry**.

Draw your own **hexagon** with a **horizontal line of symmetry**.



Apply – Problem Solving

Tick whether each statement is true (T) or false (F).

	T	F
All 4-sided shapes have a horizontal line of symmetry.		
A regular hexagon has a horizontal line of symmetry.		
A shape can have more than one horizontal line of symmetry.		

Apply – Reasoning

James draws a range of **2-D shapes** that he says all have a **horizontal line of symmetry**.
Is he correct? Explain how you know.

