



# Y3 M6d Can identify right angles

Commissioned by The PiXL Club Ltd.  
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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.

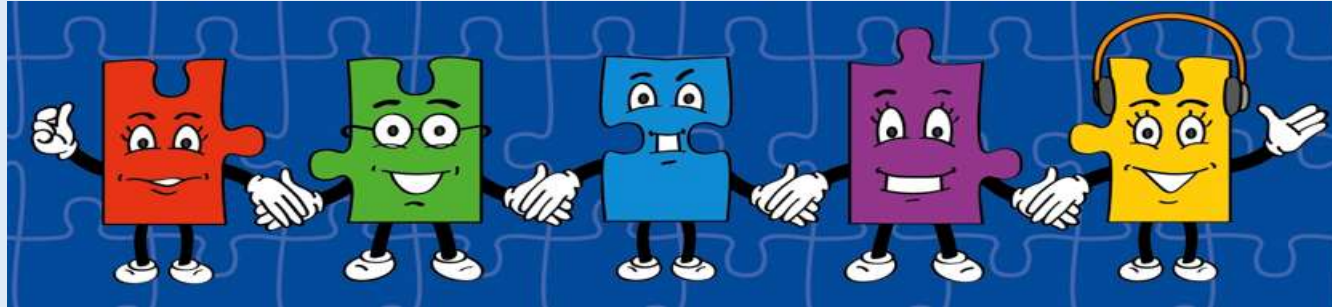
DA

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 Charlie Communication skills today:

- Speak clearly.
- Discuss ideas by taking turns.
- Listen carefully.

# LORIC task

- Look at the words provided.
- Select the shape that you think is the odd one out.
- Explain why to a partner. Share and discuss ideas.



**Which is the odd one out?**

*square*

*pentagon*

*cuboid*

Use your Charlie Communication skills to explain your reason.

# Vocabulary activity

right angle

**DEFINE IT/USE IT**

The word is:

Meaning:

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Image/graphic:

In context:

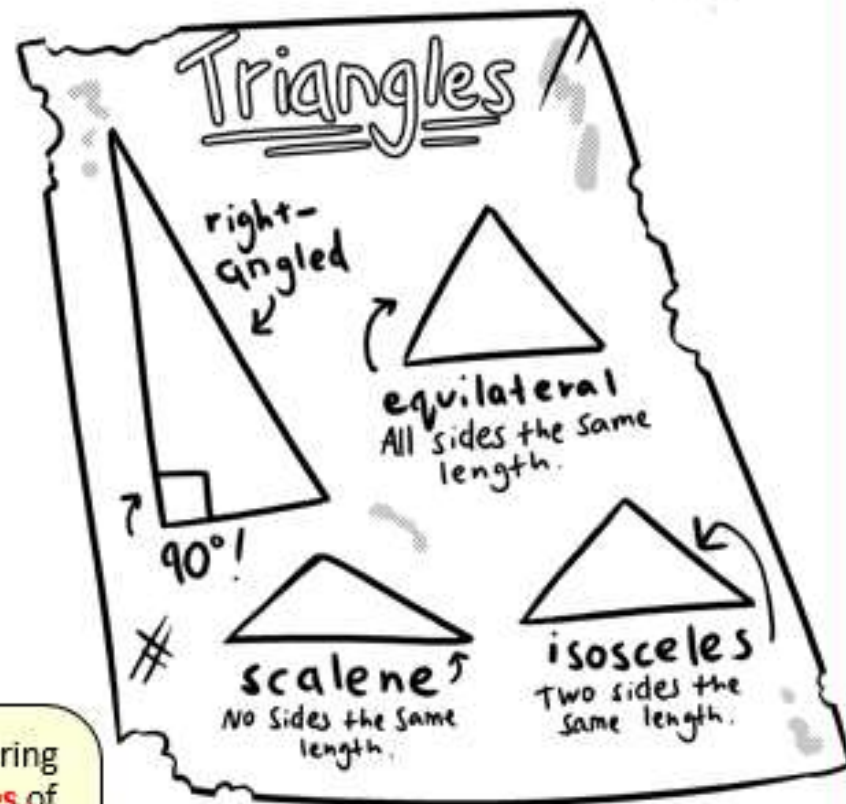
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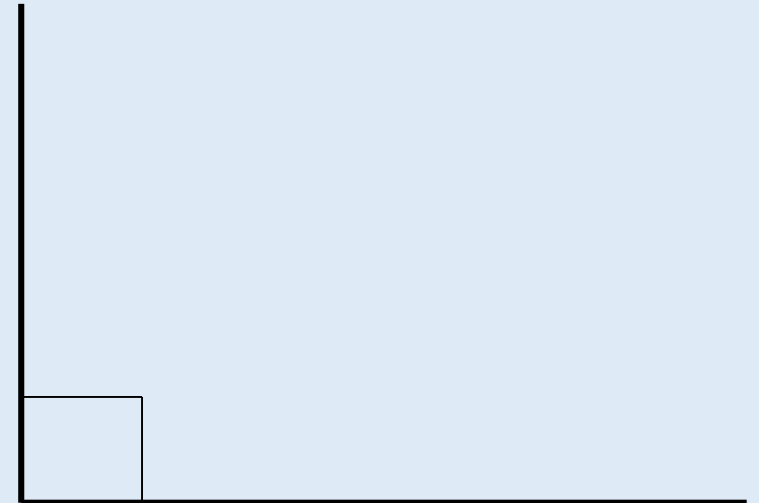
When comparing the **properties** of **3D shapes**, we need to look for:

- faces
- edges
- vertices

# Teach

To identify **right angles**, it is important to understand key vocabulary.

A **right angle** is an angle of exactly  **$90^\circ$  (degrees)**, corresponding to a quarter turn. A square is quite often drawn to show the **right angle**.



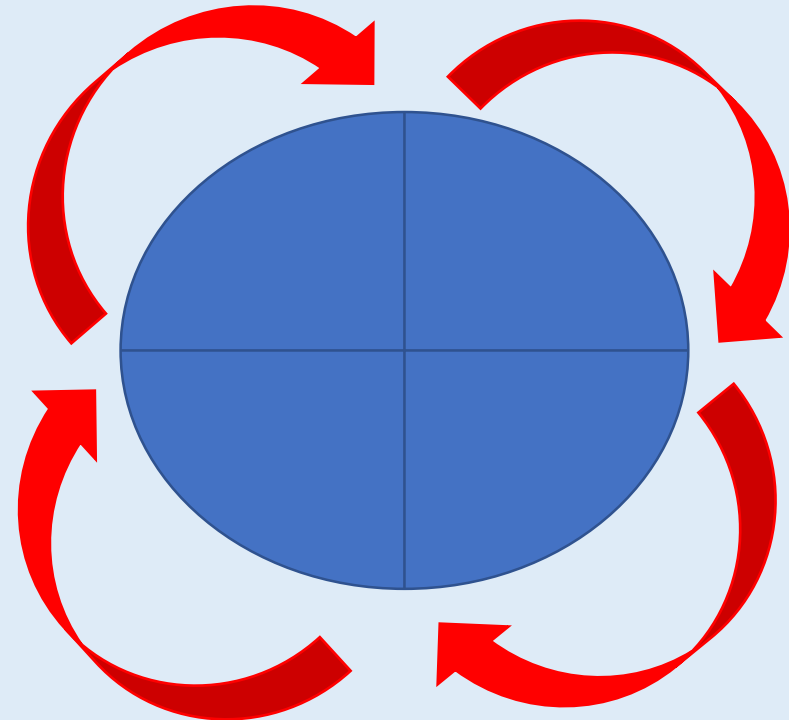


# Teach

To identify **right angles**, it is important to understand key vocabulary.

By drawing a **horizontal** and **vertical line** through the centre of the circle, 4 **right angles** are created.

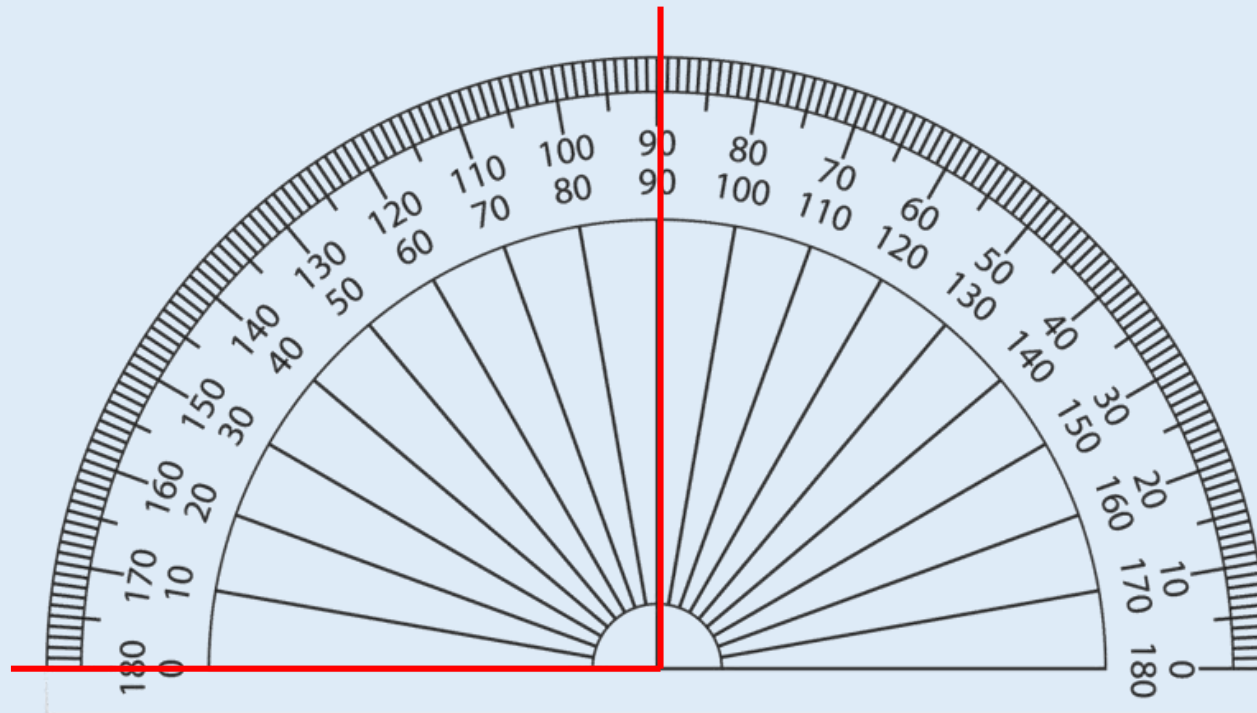
Each one is a quarter turn (as shown by the arrows).



# Teach

A **right angle** is an angle of exactly  **$90^\circ$**  (degrees).

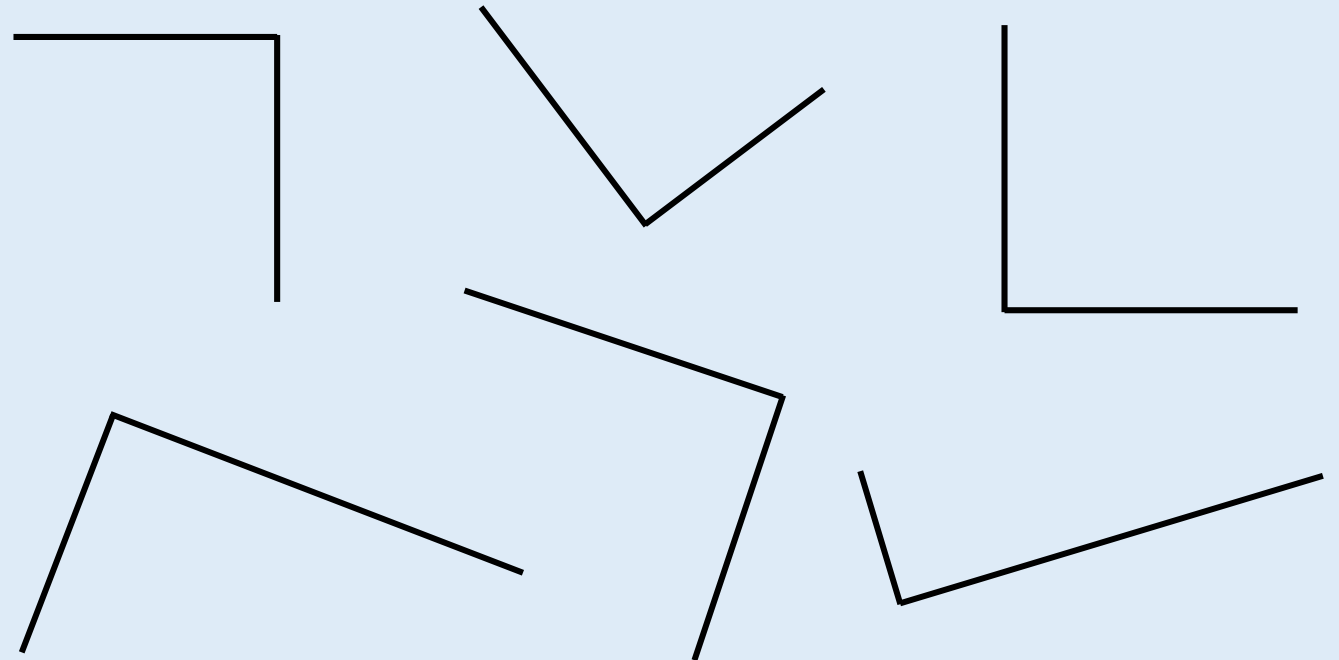
A protractor can be used to check that an angle is  **$90^\circ$** .



# Teach

A **right angle** is an angle of exactly  **$90^\circ$  (degrees)**, corresponding to a quarter turn.

A right angle is shaped like an 'L'.  
A square is quite often drawn to show the **right angle**.

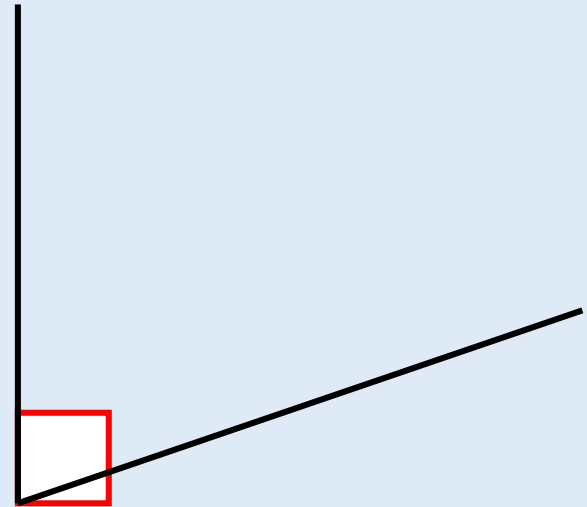


# Teach

A **right angle** is an angle of exactly  $90^\circ$  (degrees).

A right angle is shaped like an 'L'.  
A square is quite often drawn to show the **right angle**.

This angle is not a **right angle** as it is **smaller** than a **right angle**.

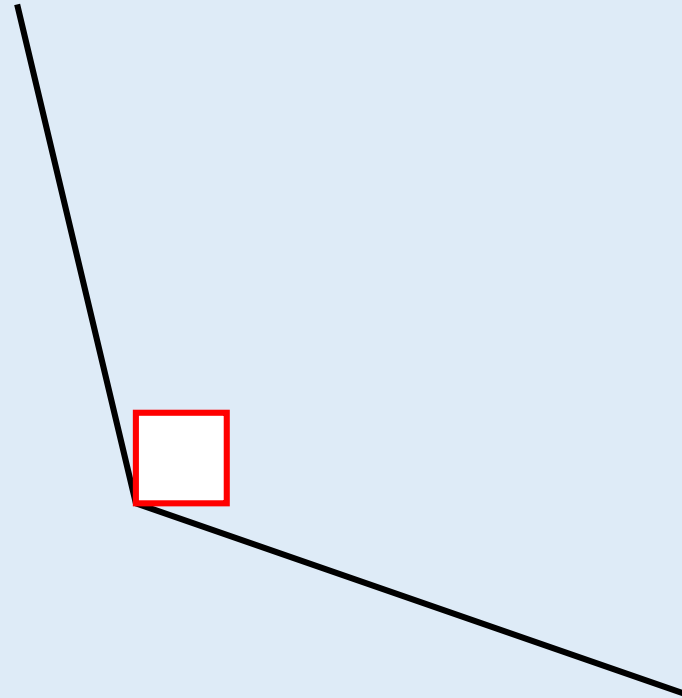


# Teach

A **right angle** is an angle of exactly  $90^\circ$  (degrees).

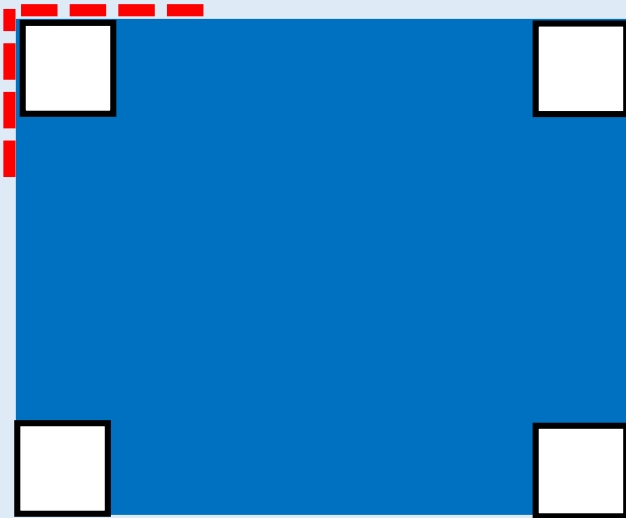
A right angle is shaped like an 'L'.  
A square is quite often drawn to  
show the **right angle**.

This angle is not a **right angle** as  
it is **larger** than a **right angle**.



# Model

A **right angle** is an angle of exactly  **$90^\circ$**  (degrees).

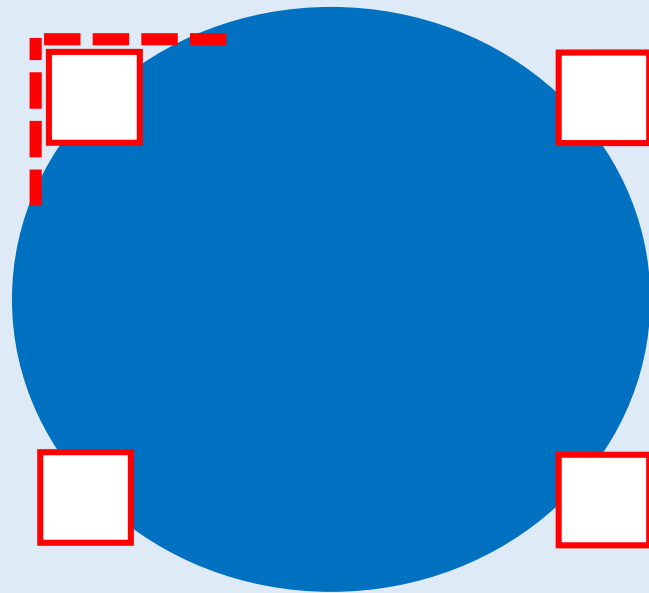


A square has four **right angles**.

Each corner is a  **$90^\circ$**  angle. I can test this by using my idea of the 'L' shape.

# Model

A **right angle** is an angle of exactly  $90^\circ$  (degrees).

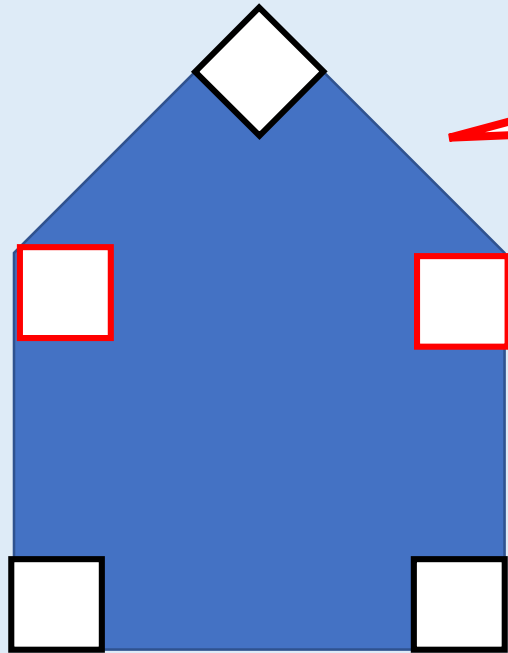


A circle has no right angles.

There are no vertices and no  $90^\circ$  angles.

# Model

A **right angle** is an angle of exactly  $90^\circ$  (degrees).



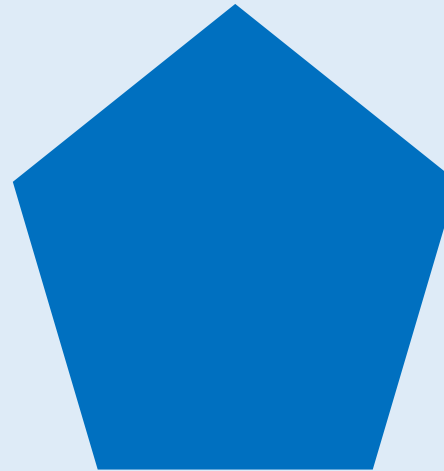
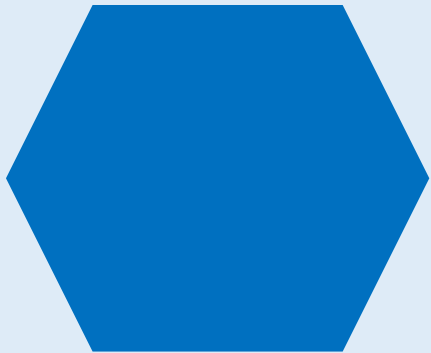
This pentagon has **3 right angles** as there are 3 vertices with  $90^\circ$  angles.

There are two vertices where the angle is larger than  $90^\circ$  (these are marked in **red**).



# Apply

Identify the **2-D shapes** which have at least one **90° right angle**.



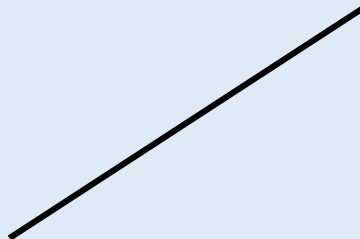
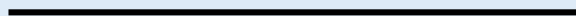
# Apply

Henry has drawn a **2-D shape** with at least one **right angle**.  
Draw your own **2-D shape** with at least one **right angle**.  
Label the **right angle**.



# Apply

For each line, draw another line to create a right angle. Mark the right angle.



# Apply – Problem Solving

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

	T	F
All 4-sided shapes have 4 right angles.		
A regular octagon has no right angles.		
A 5-sided shape cannot have a right angle.		

## Apply – Reasoning

Harry draws a range of **2-D shapes** that he says do not have a **right angle**.  
Is he correct? Explain how you know.

