L.O. to identify and describe right angles in 2D shapes.

Success Criteria:

- I understand that angles are formed where two straight lines meet at a point.
- I can describe angles as the measure of the turn between the two lines.
- I can identify right angles in 2D shapes, representing the angle using a small square.

Which clocks show a quarter turn?
$A$ and $E$


Can you explain why the other clocks do not show quarter turns?
$B$ and D show a half turn which is two quarter turns.
C shows a turn smaller than a quarter turn.

## What Is an Angle?

We see angles when two straight lines meet at a point. An angle is the measure of the turn between two lines.


## What Is an Angle?

Here we can see the angle made in a quarter turn.

The measure of the turn in a quarter turn is called a right angle.

Instead of a curved arc to show a right angle, we use two straight lines to create a small square. This is because right angles are square corners.

## What Is an Angle?

A right angle can face any direction.

A right angle can be in any position.

A right angle always has a quarter turn between two straight lines.

## Right angles in 2D shapes

Let's investigate which 2D shapes have right angles.


We can use a right-angle finder to help us to check which of the angles are right angles.

The rectangle has 4 right angles.

## Right angles in 2D shapes

Let's investigate which 2D shapes have right angles.


We can use a right-angle finder to help us to check which of the angles are right angles.

The triangle has 1 right angle. It's called a right-angled triangle.

## Right angles in 2D shapes

Let's investigate which 2D shapes have right angles.


We can use a right-angle finder to help us to check which of the angles are right angles.

The rhombus has no right angles.

Let's investigate which 2D shapes have right angles.


We can use a right-angle finder to help us to check which of the angles are right angles.

The square has 4 right angles.

## Prove It

Does this 2D shape have 3 right angles?


No, this shape has one right angle.

## Prove It

Does this 2D shape have 3 right angles?


Yes

## Prove It

Does this 2D shape have 4 right angles?


No. As this shape has curved corners/vertices, it has no right angles.

How many right angles are in this shape? Discuss with your partner. Do you agree?


There are 5 right angles inside the shape.
Did you also spot the right angle created on the outside of the shape?

Find right angles inside the shapes below using your right angle tester to help you.
Draw $a$ square to shaw where you find a sight angle. One has been dane for you


## Next Step:



Draw a line along the dots to make a right-angle with each of these lines:


How many right angles can you see in this image?


Use your right angle tester to help you solve the problems!

Using your right angle tester, move around the classroom and identify as many right angles as you can!


Record the object on a post it note and write how many right angles the abject has next to it.
maths book = 4 right angles
door $=4$ right angles

## Answers:




Draw a line along the dots to make a right-angle with each of these lines:


How many right angles can you see in this image?


There are 34 right angles.

