



THIRD SPACE
LEARNING

Ready-to-go Lesson Slides

Year 2

Please note:

2-D and 3-D shapes will be needed
for some parts of this lesson.

Geometry: Properties of Shapes

Lesson 1

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.

To find out more about how you could use our 1-to-1 interventions year-round to boost maths progress in your school then get in touch:

020 3771 0095
hello@thirdspacelearning.com

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

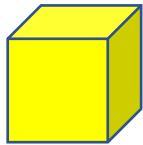


To recognise 2-D and 3-D shapes

Starter:



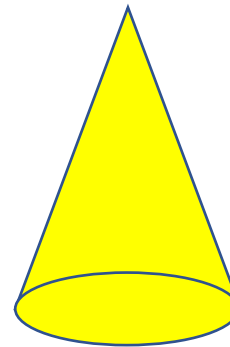
Riley is looking at a 3-D shape.
These are the two 2-D shapes he can see
when he looks around the shape.
Which 3-D shape is it? How do you know?



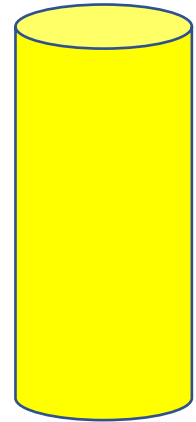
cube



cuboid



cone



cylinder

Success Criteria:

- ☐ I know the difference between 2D and 3D shapes
- ☐ I know that 2D shapes are actually flat and can't be held

To recognise 2-D and 3-D shapes

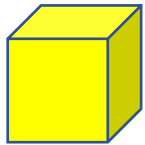
Starter:



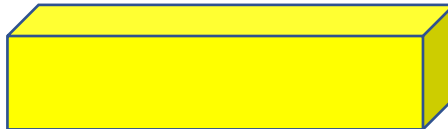
Riley is looking at a 3-D shape.
These are the two 2-D shapes he can see
when he looks around the shape.
Which 3-D shape is it? How do you know?



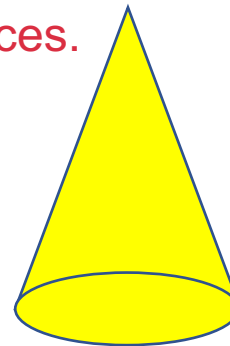
Riley is looking at a cuboid.
The cube has 6 identical square faces.
The cone and cylinder have 1
circular face.



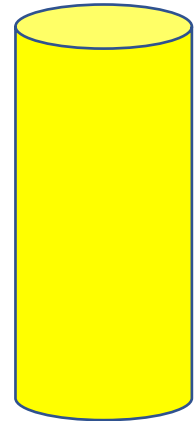
cube



cuboid



cone



cylinder

Success Criteria:

- ☐ I know the difference between 2D and 3D shapes
- ☐ I know that 2D shapes are actually flat and can't be held

To recognise 2-D and 3-D shapes

Talking Time:

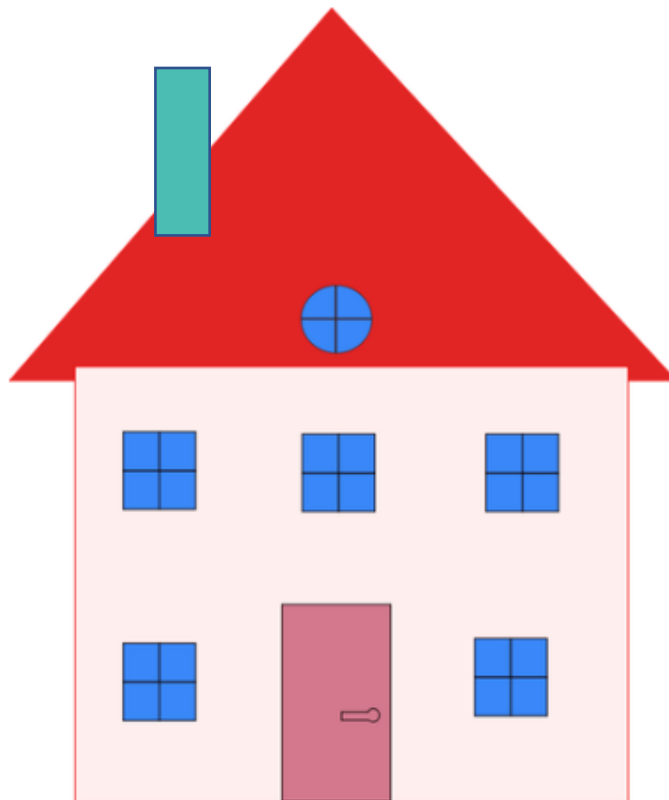
Can you draw a line from the name of the shape to a picture of the shape on the house?

rectangle

circle

square

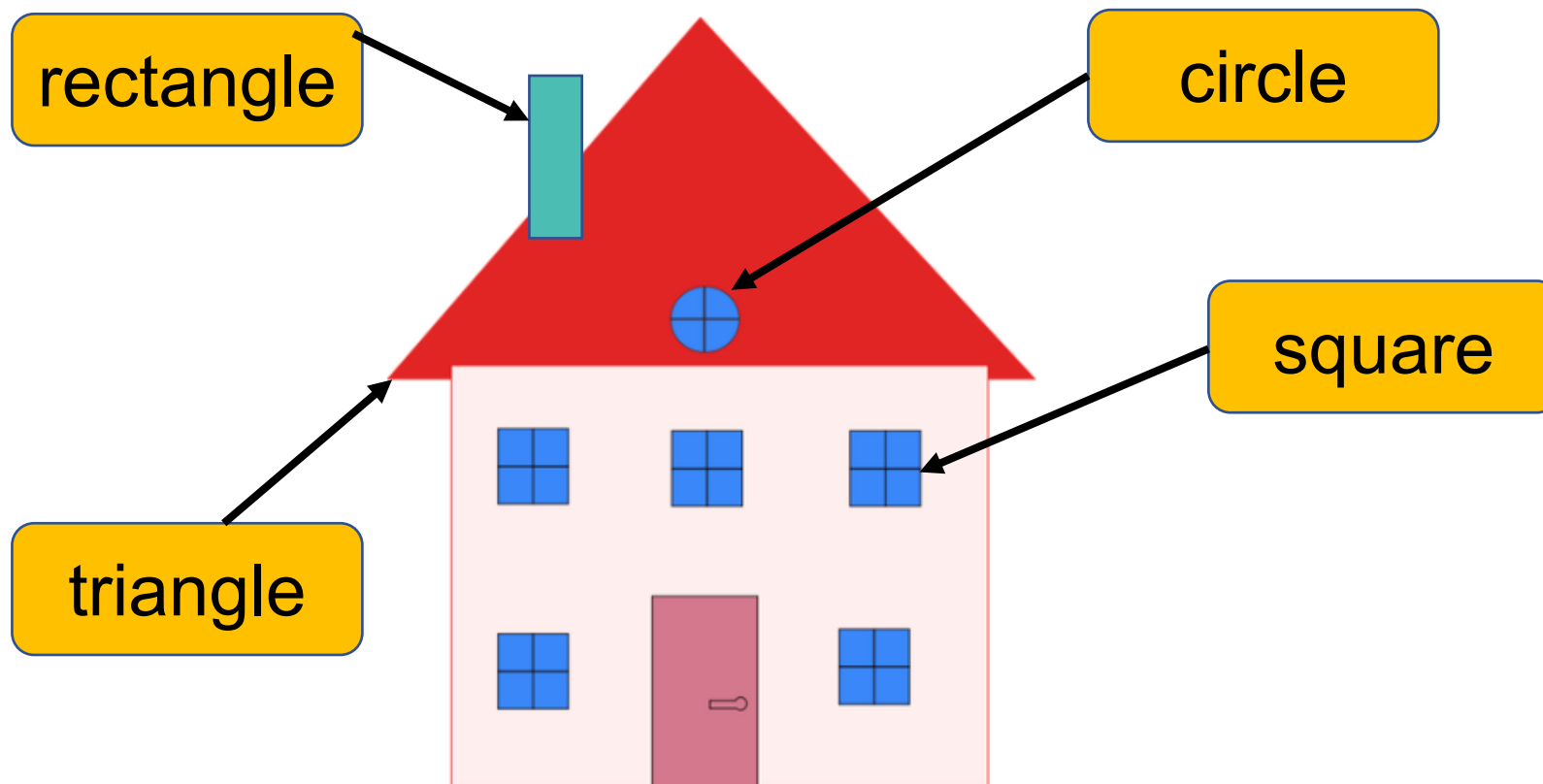
triangle



To recognise 2-D and 3-D shapes

Talking Time:

Can you draw a line from the name of the shape to a picture of the shape on the house?

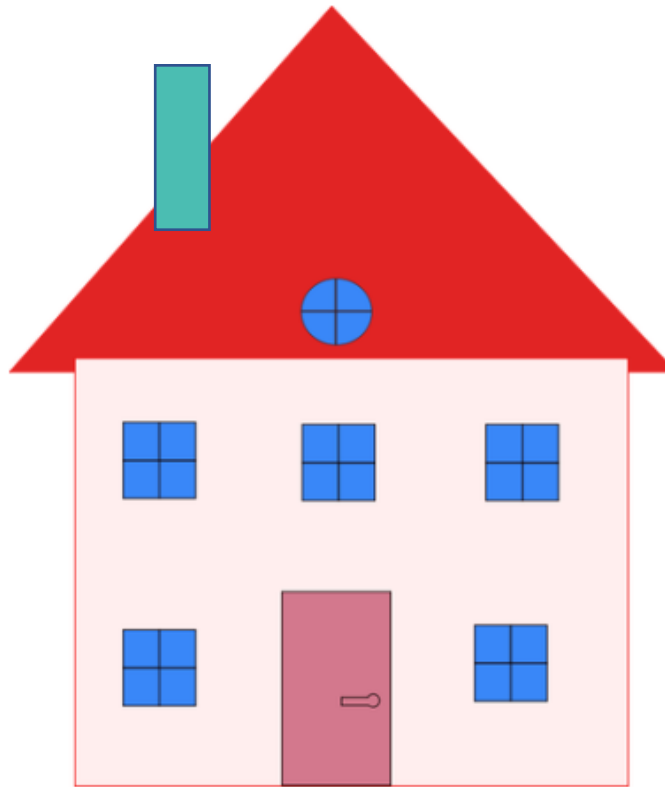


To recognise 2-D and 3-D shapes

Talking Time:

Can you complete the table by counting how many of each shape you can find on the house?

shape	number
circles	
squares	
triangles	
rectangles	



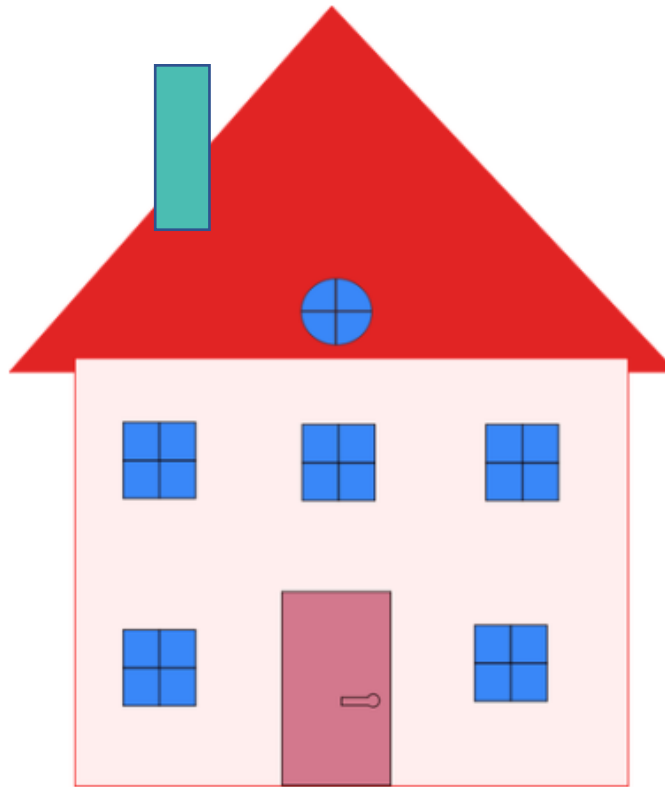
Hint: be really careful when you are counting the squares.

To recognise 2-D and 3-D shapes

Talking Time:

Can you complete the table by counting how many of each shape you can find on the house?

shape	number
circles	1
squares	25
triangles	1
rectangles	3



Extension:

Can you draw a picture of an object or an animal that includes some squares, triangles, circles and rectangles?
Ask a partner to count how many of each shape there are.

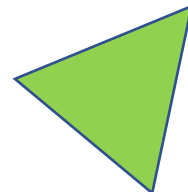
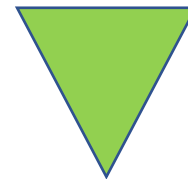
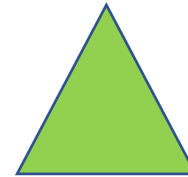
Hint: be really careful when you are counting the squares.

To recognise 2-D and 3-D shapes

Activity 1:

Do you agree with Violet?
Why? Why not?
Can you explain your thinking?

Only the top shape
is a real triangle.
The other two need
to be turned around
to be real triangles.

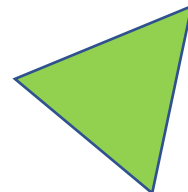
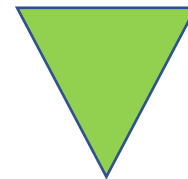
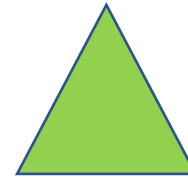


To recognise 2-D and 3-D shapes

Activity 1:

Do you agree with Violet?
Why? Why not?
Can you explain your thinking?

Only the top shape
is a real triangle.
The other two need
to be turned around
to be real triangles.



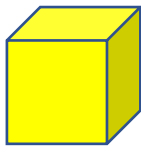
Violet is not correct.
All three shapes are triangles.
A triangle is still a triangle even if you turn it.

To recognise 2-D and 3-D shapes

Talking Time:

Alice has a puzzle for you to solve.
Follow her clues and work out which shape
she is thinking of.
How do you know that you are right?

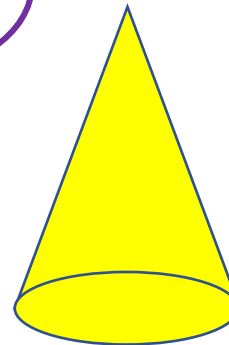
Clue 1. My shape does **not**
have 6 square faces.
Clue 2. My shape has at least
one circular face.
Clue 3. My shape has an apex
or a vertex or a point.



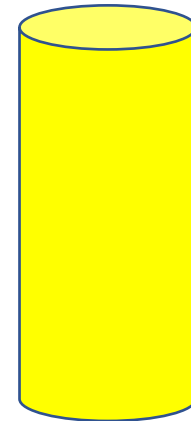
cube



cuboid



cone



cylinder

To recognise 2-D and 3-D shapes

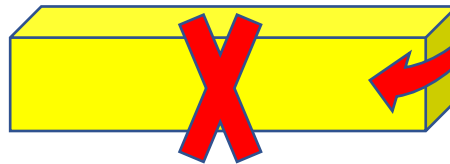
Talking Time:

Alice has a puzzle for you to solve.
Follow her clues and work out which shape she is thinking of.
How do you know that you are right?

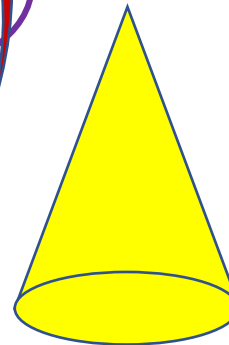
Clue 1. My shape does not have 6 square faces.
Clue 2. My shape has at least one circular face.
Clue 3. My shape has an apex or a vertex or a point.



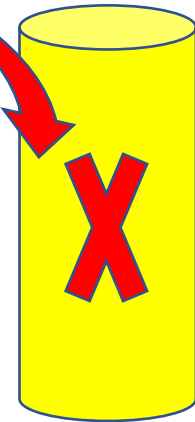
cube



cuboid



cone



cylinder

To recognise 2-D and 3-D shapes

Talking Time:

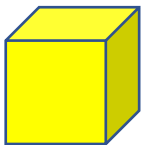
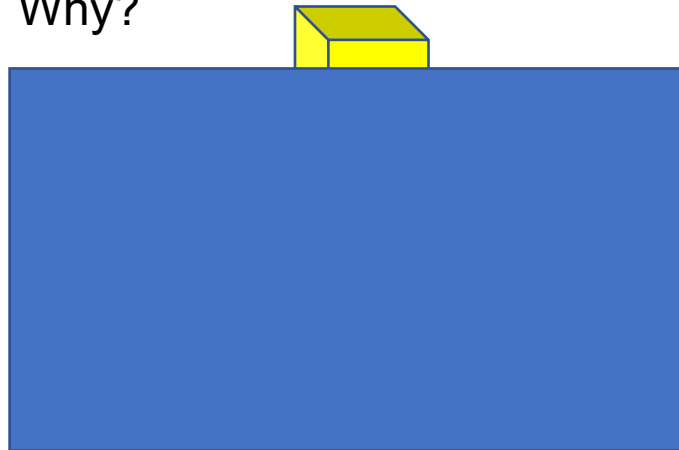


Alice is hiding one of the four shapes behind a screen.

Which shape could it be and why?

Which of the shapes can it definitely not be?

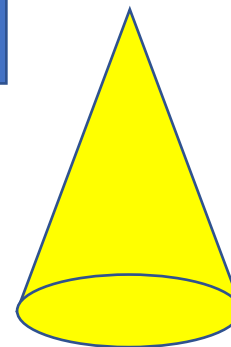
Why?



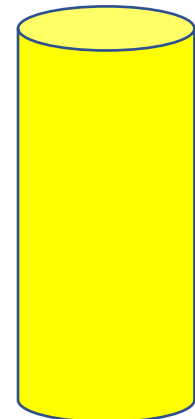
cube



cuboid



cone



cylinder

To recognise 2-D and 3-D shapes

Talking Time:



Alice is hiding one of the four shapes behind a screen.

Which shape could it be and why?

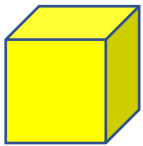
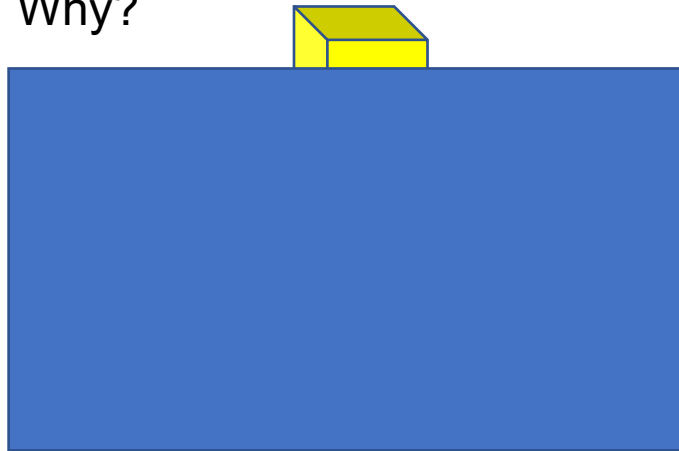
Which of the shapes can it definitely not be?

Why?

The shape could be a cube or a cuboid.

There is a square face.

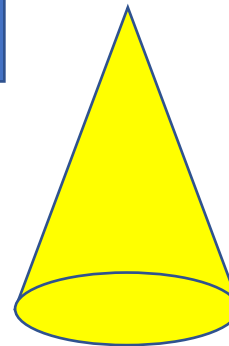
It could not be a cone or a cylinder as they do not have any square faces.



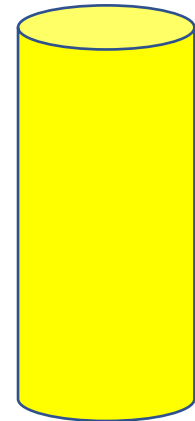
cube



cuboid



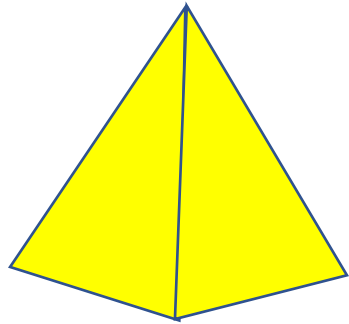
cone



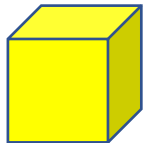
cylinder

To recognise 2-D and 3-D shapes

Talking Time:



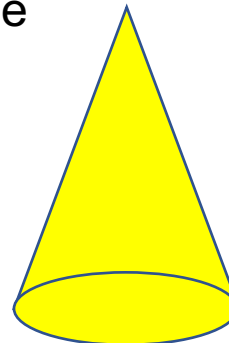
square-based
pyramid



cube



cuboid



cone



cylinder

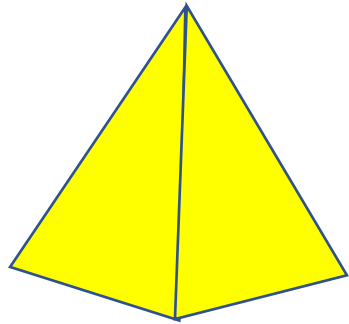
Alice has a feely bag.
She puts each of these
shapes inside.
She holds a shape that has
an apex or one vertex or a
point.
Which shape could she be
holding? Why?

Extension:

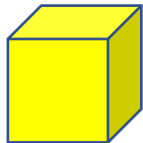
Use a feely bag and each of
these shapes.
Choose a shape and
describe it to a partner.
Can they guess which shape
you have chosen?

To recognise 2-D and 3-D shapes

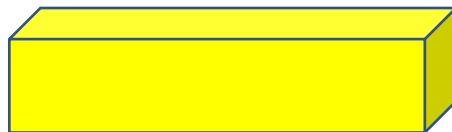
Talking Time:



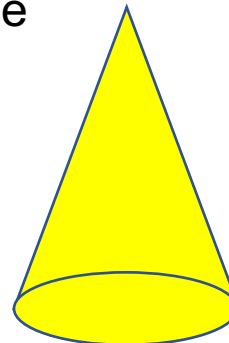
square-based
pyramid



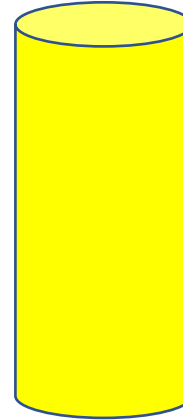
cube



cuboid



cone



cylinder

Alice has a feely bag.
She puts each of these
shapes inside.
She holds a shape that has
an apex or one vertex or a
point.
Which shape could she be
holding? Why?

Alice could have either
the cone or the
square-based pyramid in
her hand.

These are the only ones
with an
apex or a vertex or a
point.

Extension:

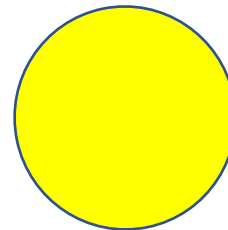
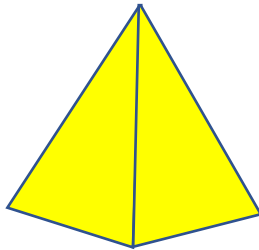
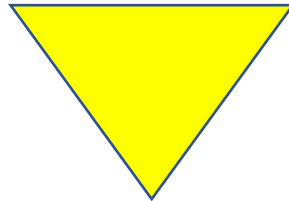
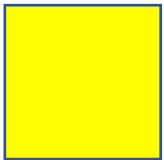
Use a feely bag and each of
these shapes.
Choose a shape and
describe it to a partner.
Can they guess which shape
you have chosen?

To recognise 2-D and 3-D shapes

Activity 2:



Can you help Lola to work out which of these shapes is the odd one out?
Can you explain why?



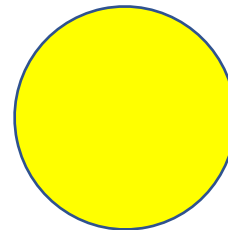
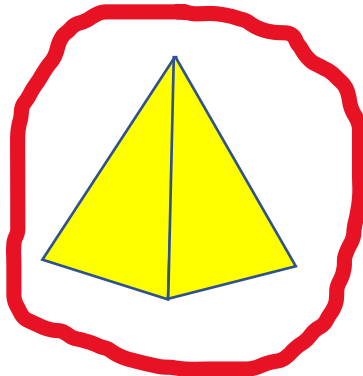
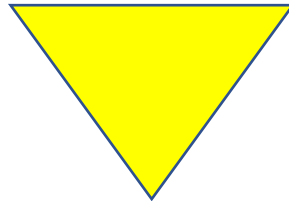
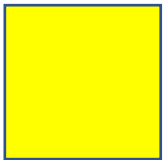
To recognise 2-D and 3-D shapes

Activity 2:



Can you help Lola to work out which of these shapes is the odd one out?
Can you explain why?

The square-based pyramid is the odd one out.
It is the only 3-D shape.
All the others are 2-D shapes.

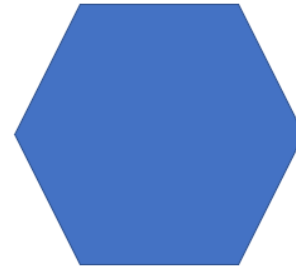


To recognise 2-D and 3-D shapes

Talking Time: Can you match the correct name of the shape to the picture of the shape?

square

pentagon



hexagon

octagon

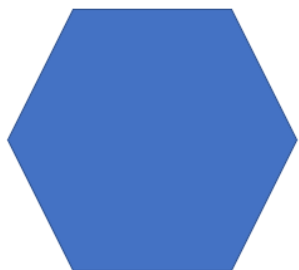
To recognise 2-D and 3-D shapes

Talking Time: Can you match the correct name of the shape to the picture of the shape?

square



pentagon



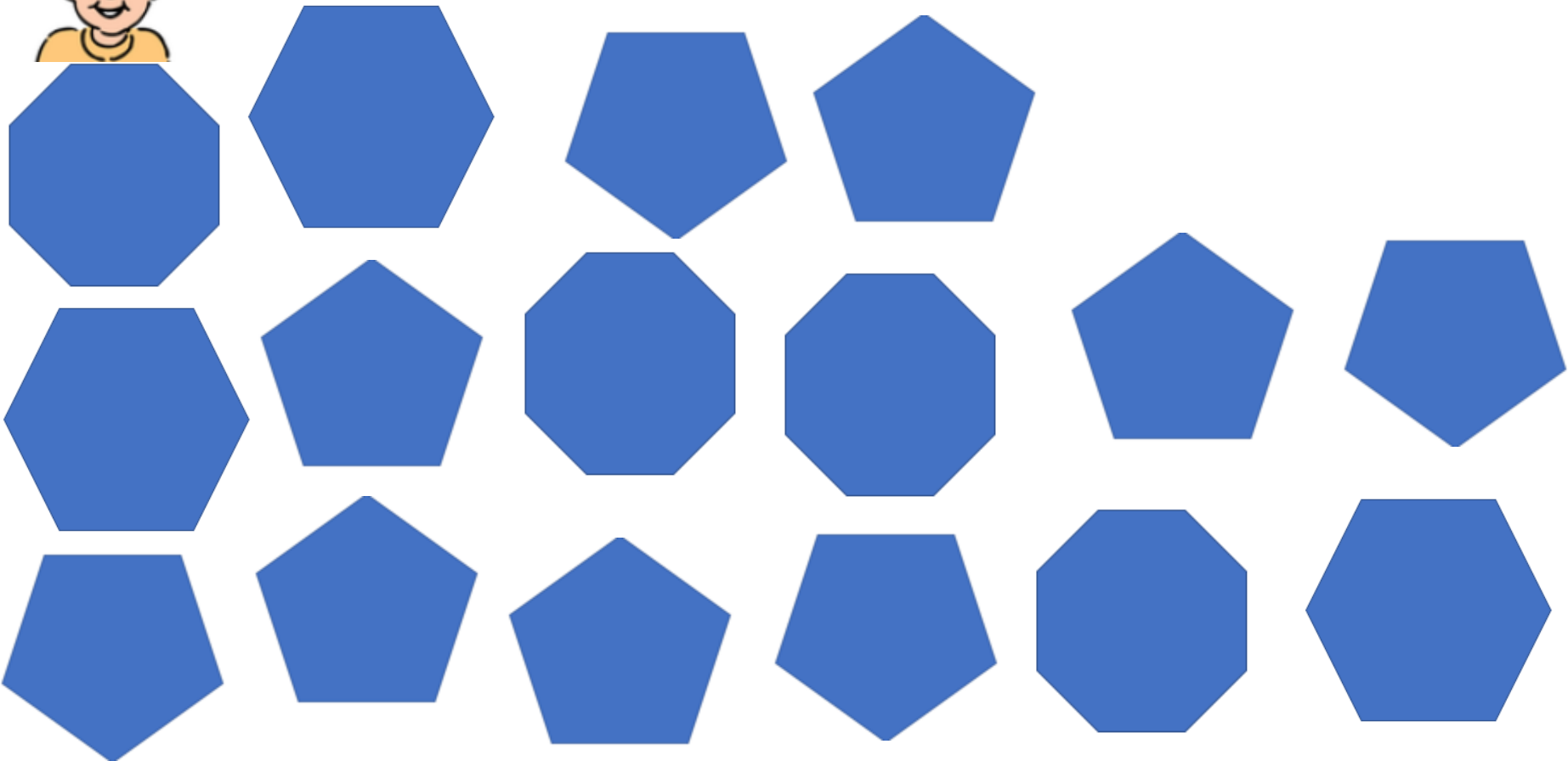
hexagon



octagon

To recognise 2-D and 3-D shapes

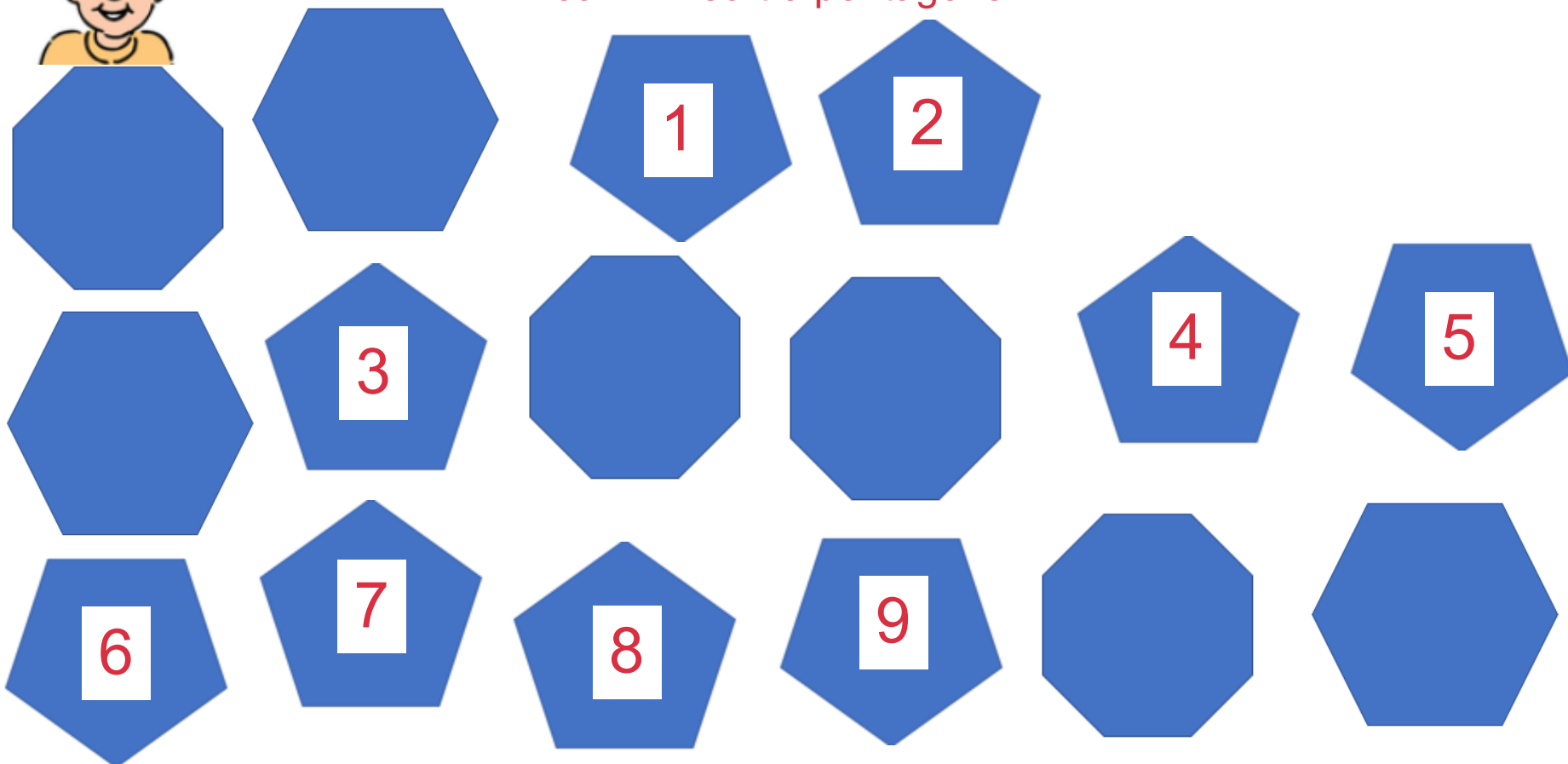
Talking Time: Noah has been asked to sort all the pentagons from a set of shapes.
How many pentagons will Noah sort?



To recognise 2-D and 3-D shapes

Talking Time: Noah has been asked to sort all the pentagons from a set of shapes.
How many pentagons will Noah sort?

Noah will sort 9 pentagons.



To recognise 2-D and 3-D shapes

Talking Time: Go on a shape hunt in your classroom and around your school with a small group.



Use this tally chart to record how many of each shape that you see.

shape	tally	total
circles		
squares		
triangles		
rectangles		
pentagons		
hexagons		
octagons		

To recognise 2-D and 3-D shapes

Talking Time: Go on a shape hunt in your classroom and around your school with a small group.



Use this tally chart to record how many of each shape that you see.

shape	tally	total
circles		
squares		
triangles		
rectangles		
pentagons		
hexagons		
octagons		

There are no answers here until you do your shape hunt.

When you have finished the shape hunt, can you answer these?

How many shapes scored more than 10?

Which shape was the most common?

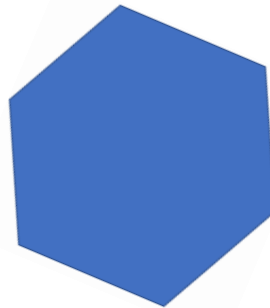
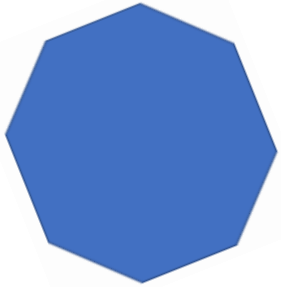
To recognise 2-D and 3-D shapes

Activity 2:

Which of these 2-D shapes is the odd one out?

Why?

Can you explain your thinking?



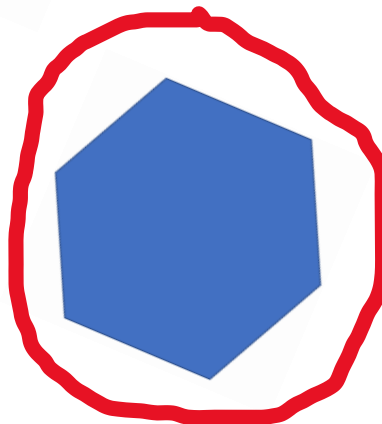
To recognise 2-D and 3-D shapes

Activity 2:

Which of these 2-D shapes is the odd one out?

Why?

Can you explain your thinking?



This shape is a hexagon.
All the other shapes are octagons.

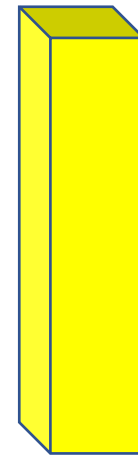
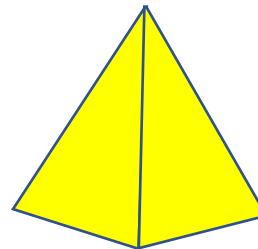
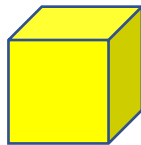
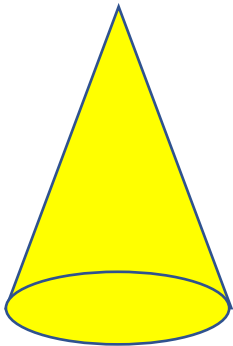
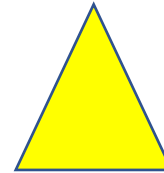
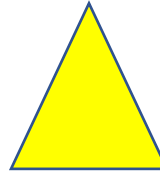
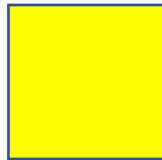
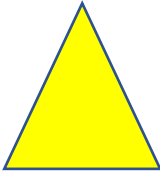
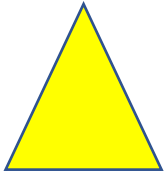
To recognise 2-D and 3-D shapes

Evaluation:



Darcey draws around all the faces of a 3-D shape.
These are the shapes that she draws.

Which of the 3-D shapes did she draw around?
How do you know?



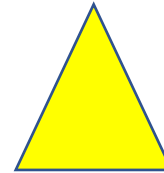
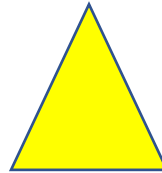
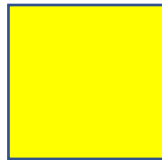
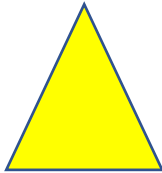
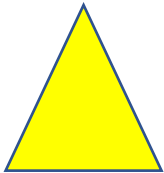
To recognise 2-D and 3-D shapes

Evaluation:



Darcey draws around all the faces of a 3-D shape.
These are the shapes that she draws.

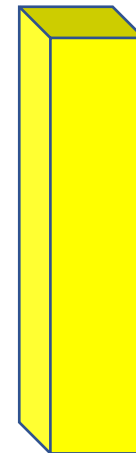
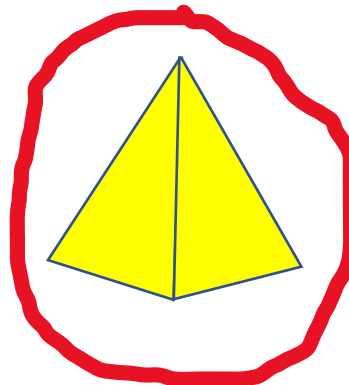
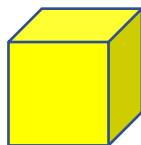
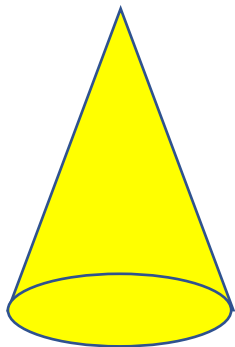
Which of the 3-D shapes did she draw around?
How do you know?



Success Criteria:

- ☐ I know the difference between 2D and 3D shapes
- ☐ I know that 2D shapes are actually flat and can't be held

Darcey drew around the square-based pyramid.
It has a square base and four triangular faces.




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

Speak to us:

 thirdspacelearning.com

 0203 771 0095

 hello@thirdspacelearning.com