

Geometry



My Name

Mathseeds Geometry Grade K Student Book

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Topic 2: 3D objects

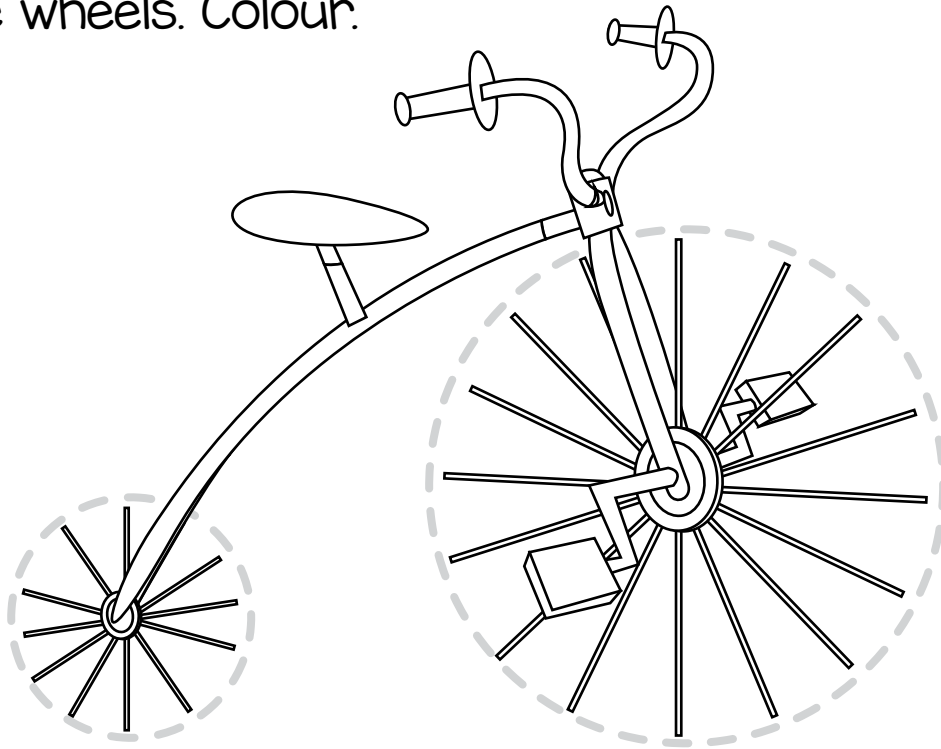
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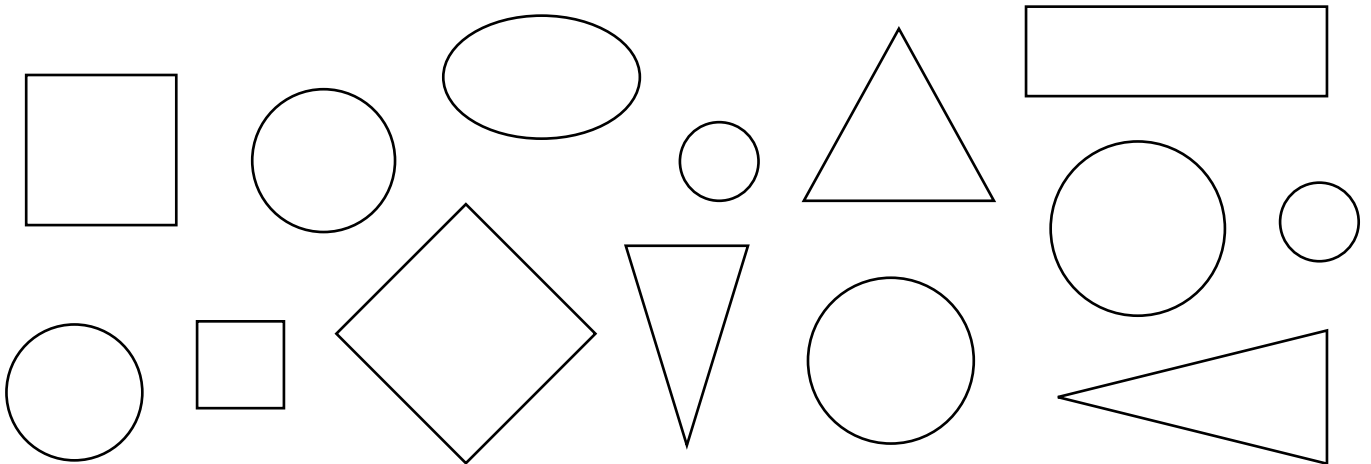
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Circles

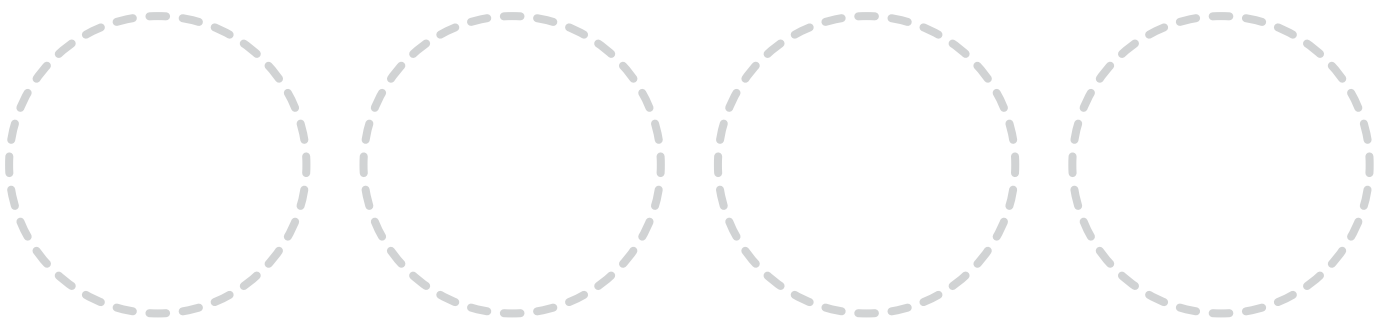
1 Finish the wheels. Colour.



2 Colour the circles.

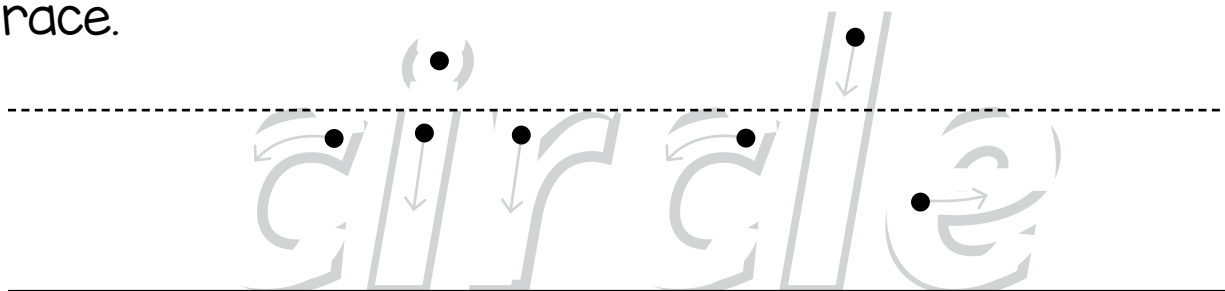


3 Trace the circles.

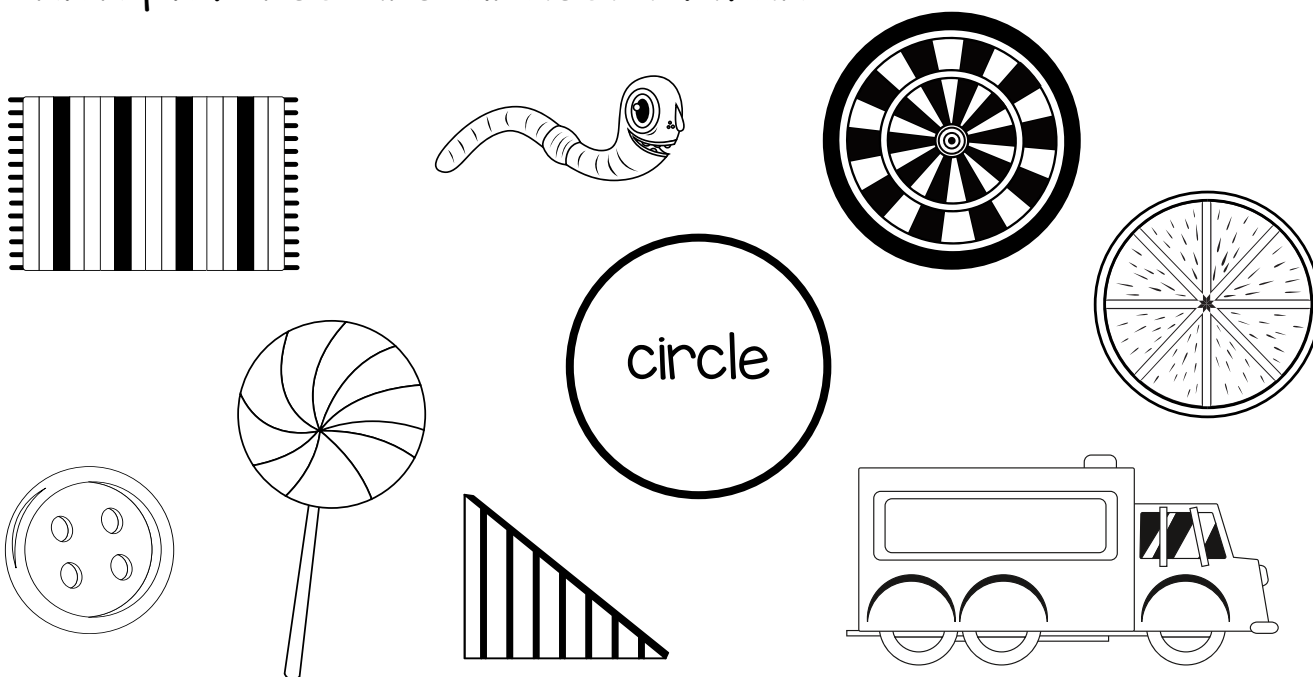


Circles

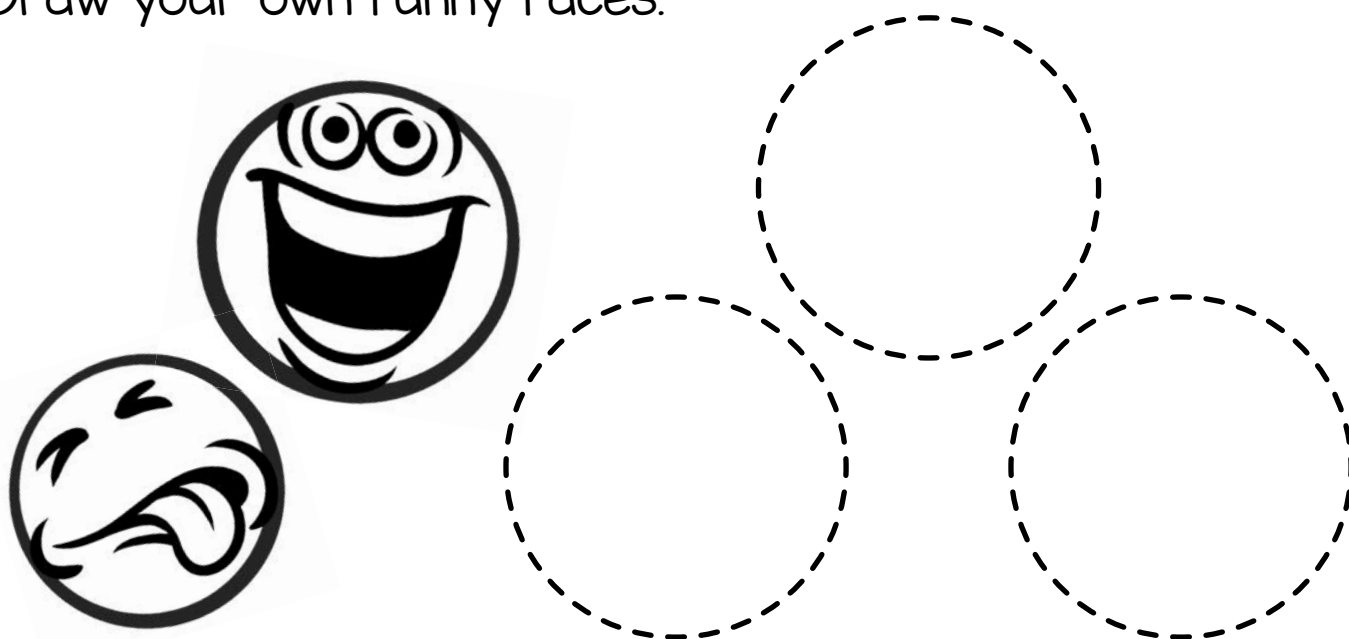
4 Trace.



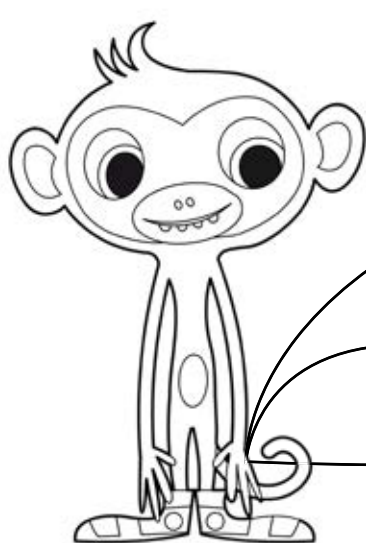
5 Which pictures are circles? Match.



6 Draw your own funny faces.



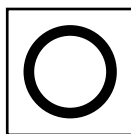
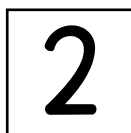
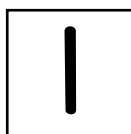
7 Finish Mango's balloons.



How many circles?

8 Trace the words and match to a symbol.

circle

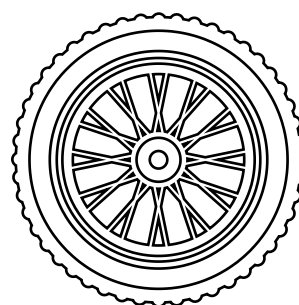
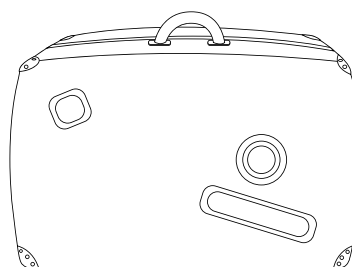
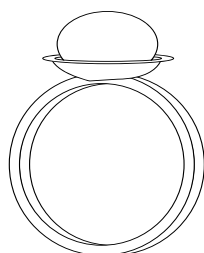
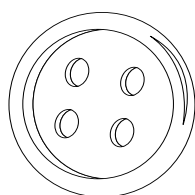


two

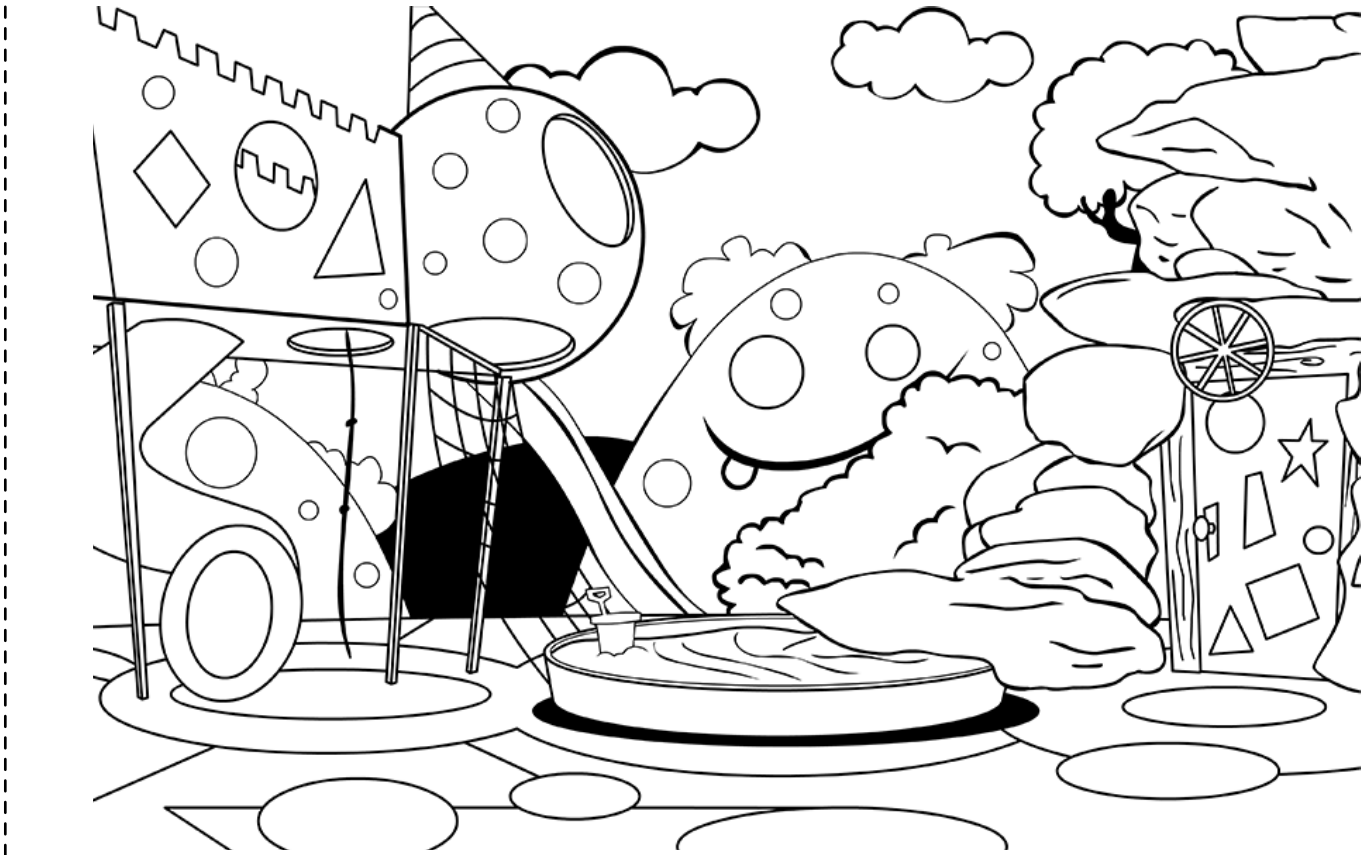
three

one



9 Colour the odd one out.



10 Find all the circles. Colour them in.



11 What is a circle? Circle the correct answers.

- a curved line 
- a straight line 
- 0 | 2 | 3 corners



12 Draw the shapes. Colour the circles.



Comparing circles

Practical

You will need: a round glass , a glue stick ,
a roll of sticky tape  and a 5c coin .

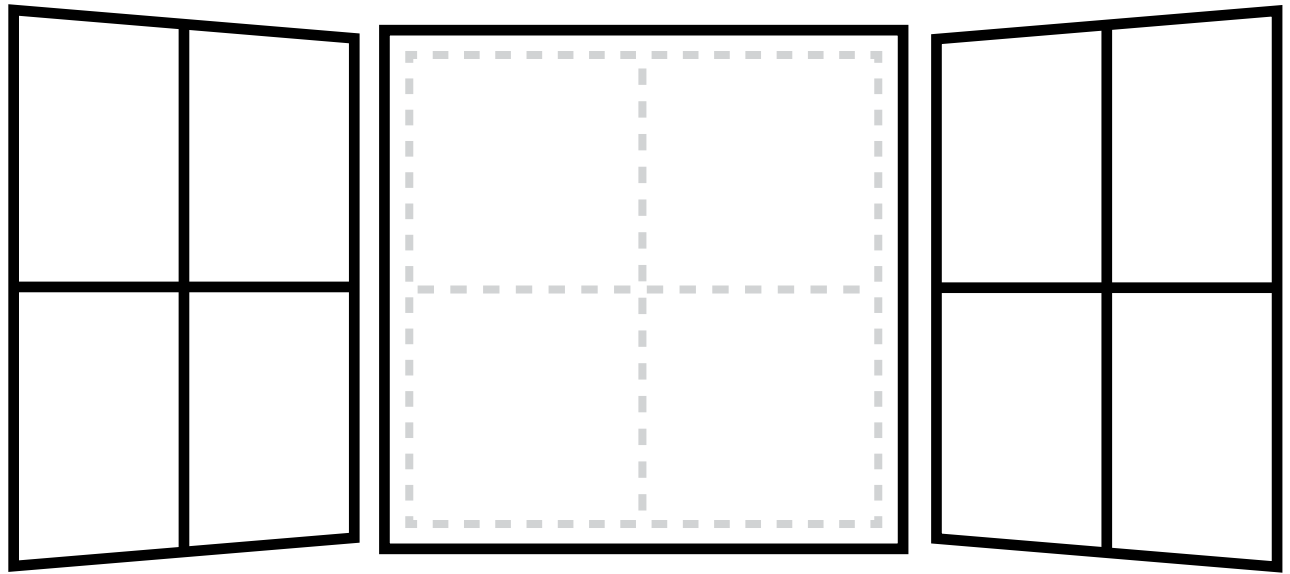
1 Draw around each object.

2 Colour the biggest ○ blue.

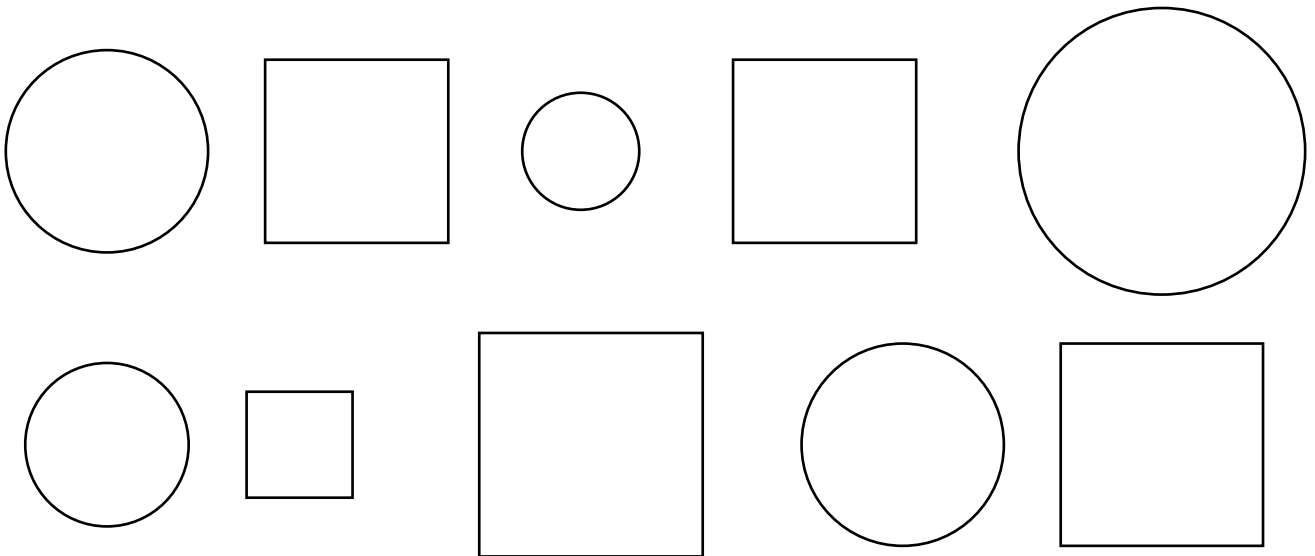
3 Colour the smallest ○ yellow.

Squares

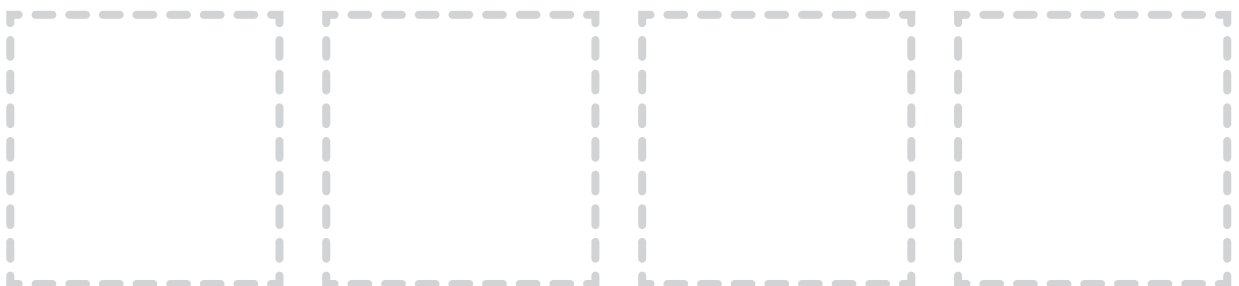
1 Finish the windows. Colour.



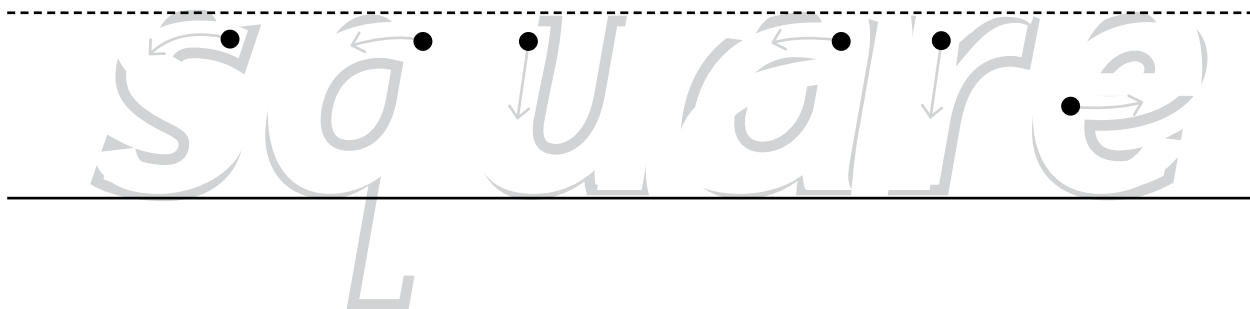
2 Colour ☐ blue, ☐ yellow.



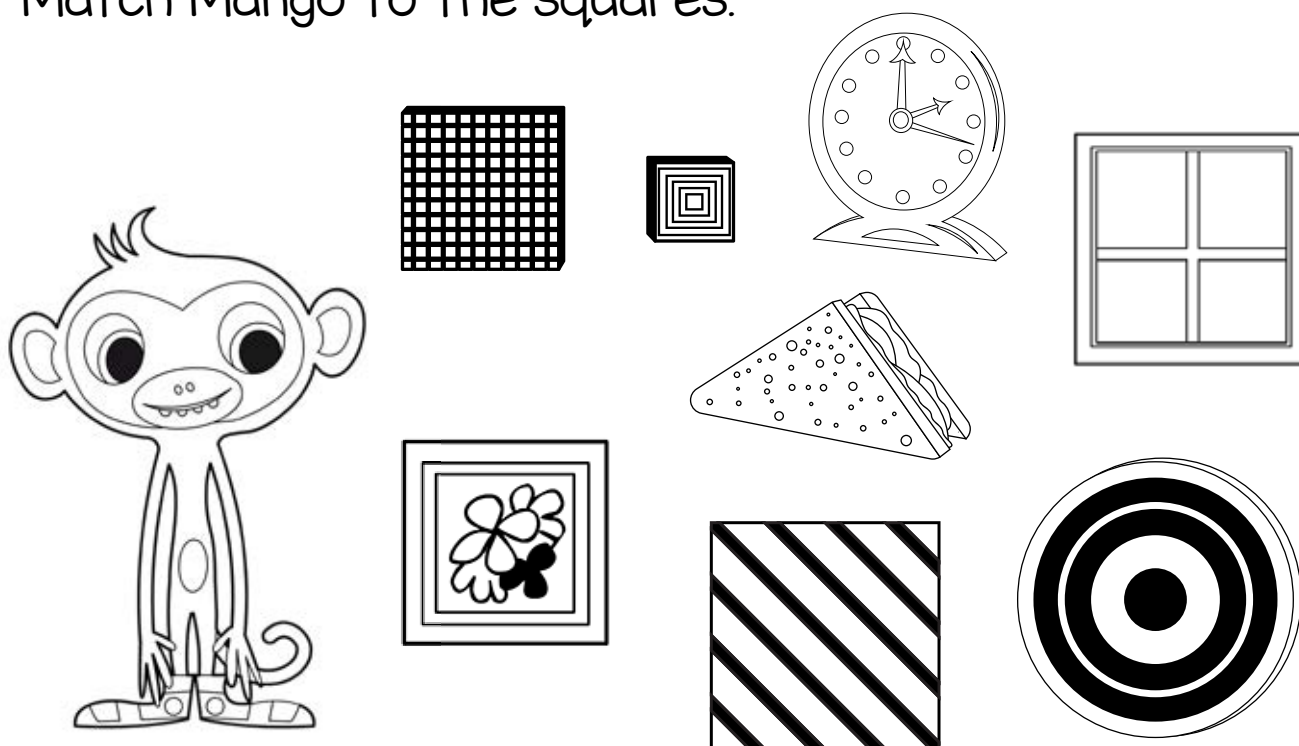
3 Trace.



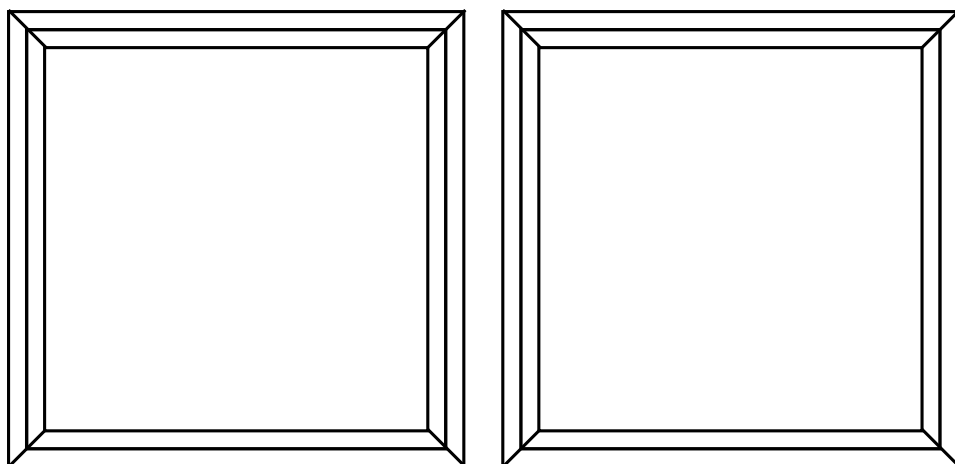
4 Trace.



5 Match Mango to the squares.



6 Draw your own shape pictures in the frames.



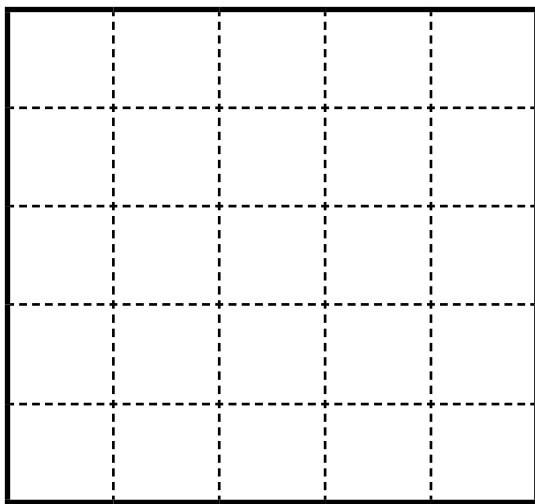
Squares

7 Write the word. Draw the shape.

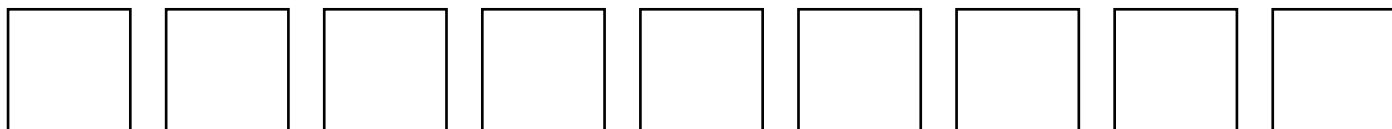
square

circle

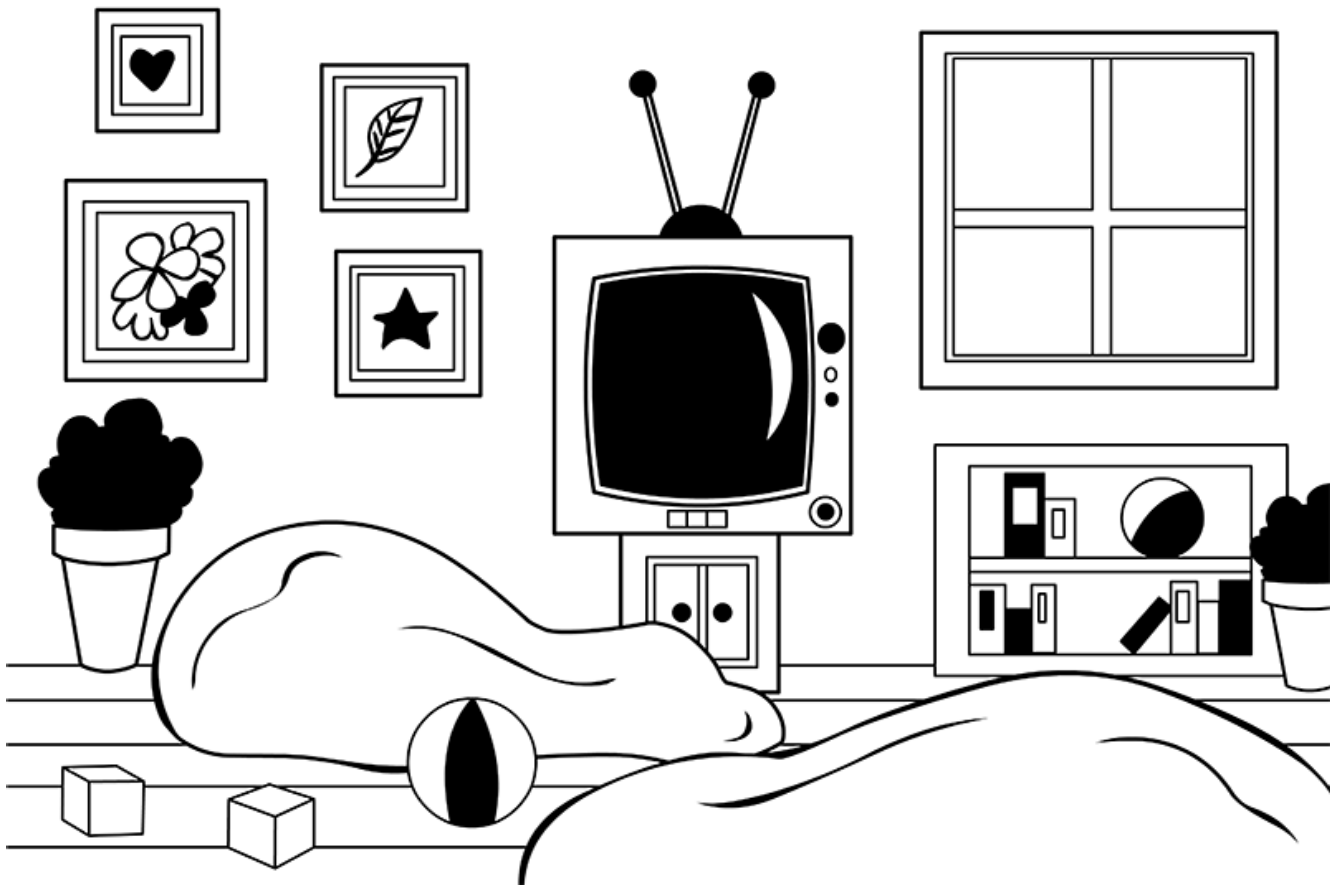
8 Trace the squares. Colour Ruby's quilt.



9 Colour the squares to make a pattern.





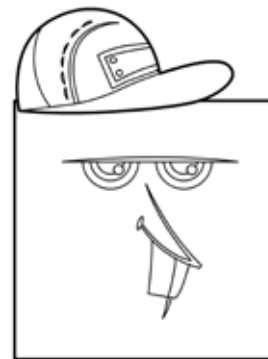
10 Find all the squares. Colour them in.



11 What is a circle? Circle the correct answers.

Squares have:

- curved sides 
- straight sides 
- 0 | 2 | 3 | 4 corners



12 Put a square frame around each picture.

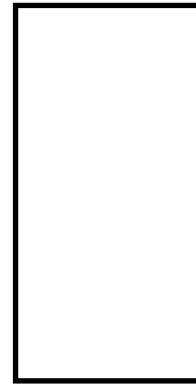
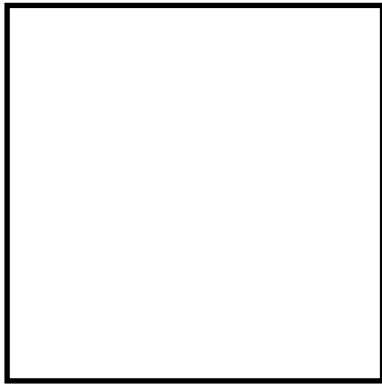


How many squares?

Practical

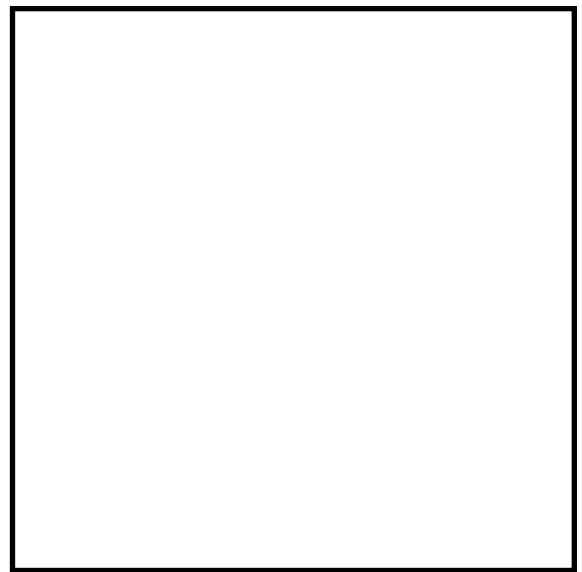
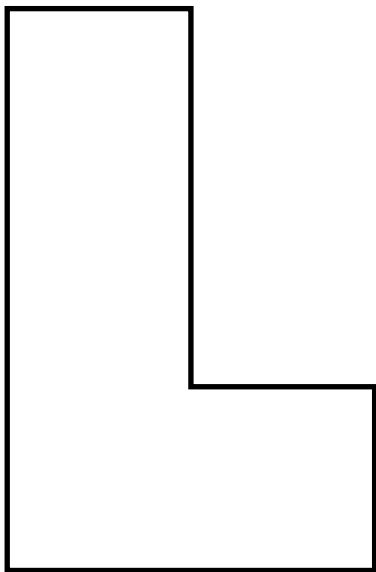
You will need some square pattern blocks .

Make each shape with the blocks.



How many  blocks? _____

How many  blocks? _____

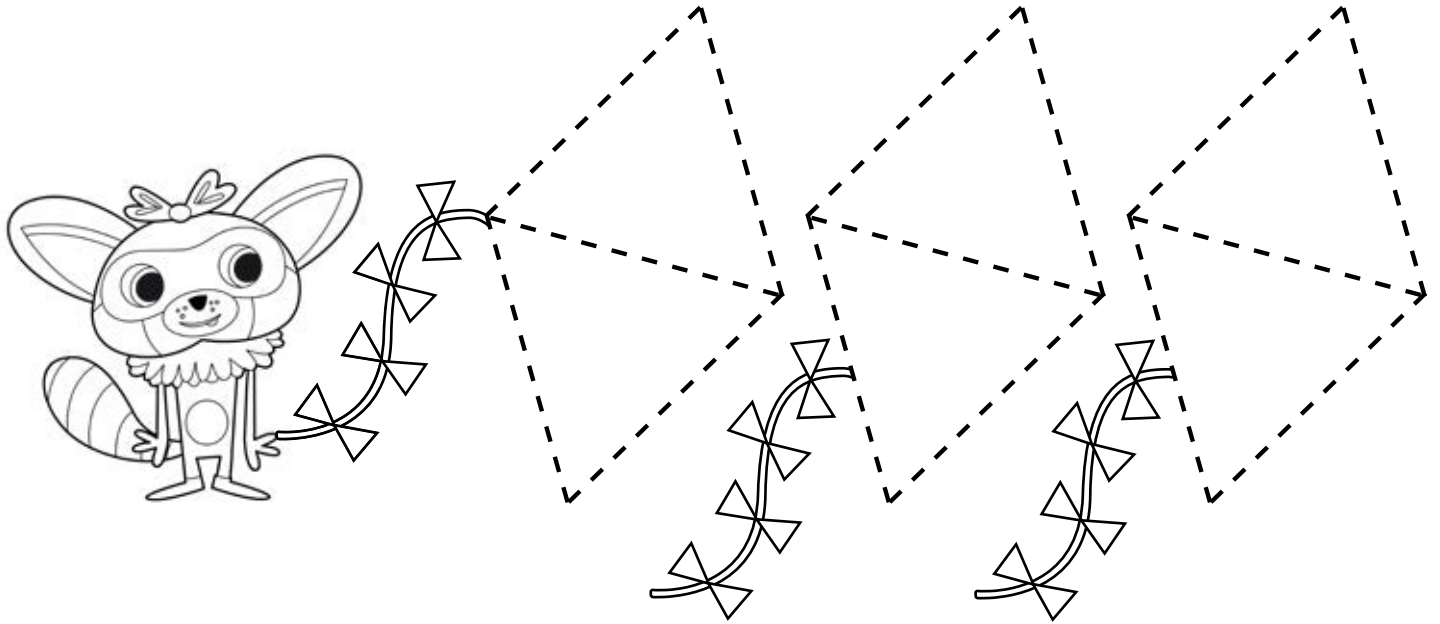


How many  blocks? _____

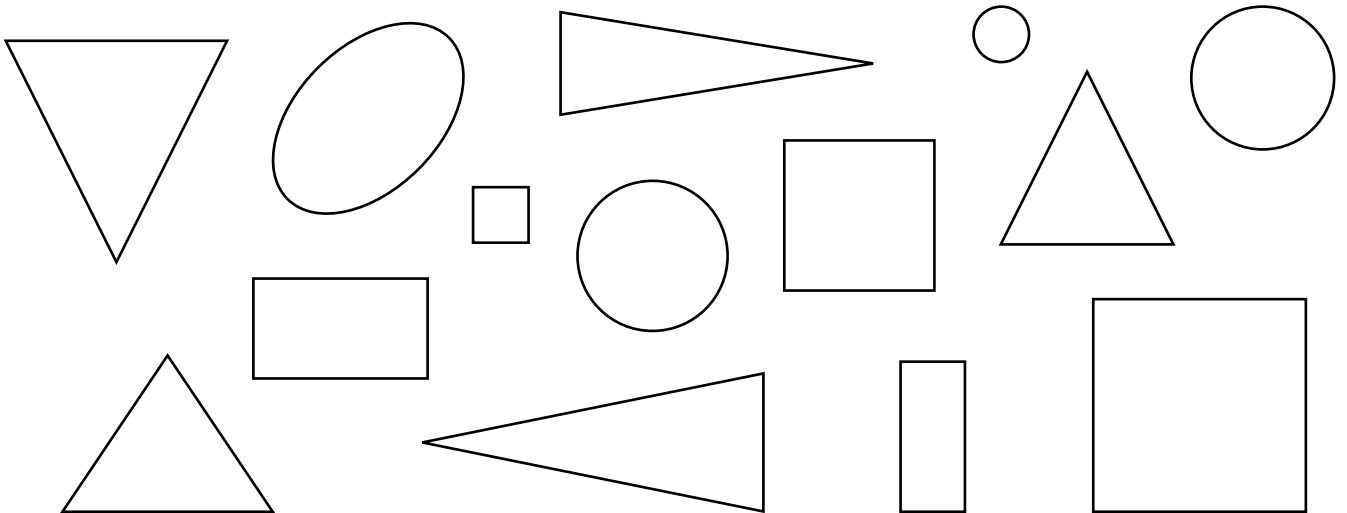
How many  blocks? _____

Triangles

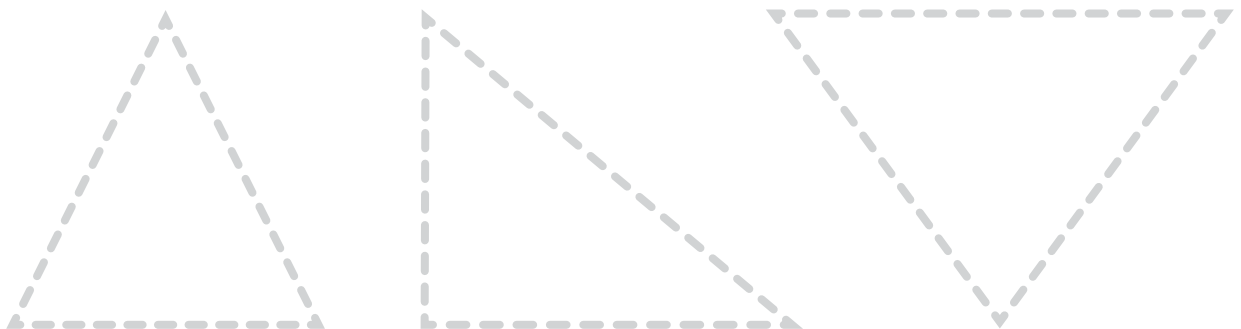
1 Finish Ruby's kites. Colour.



2 Colour the triangles.

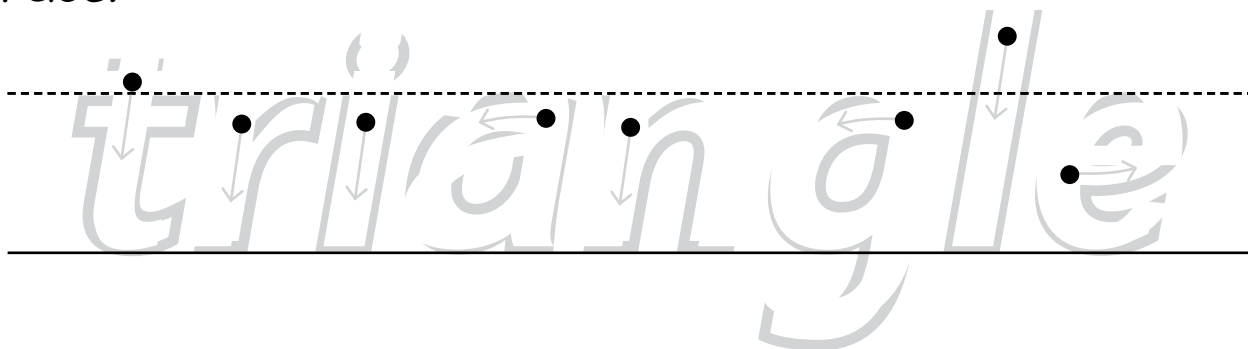


3 Trace.

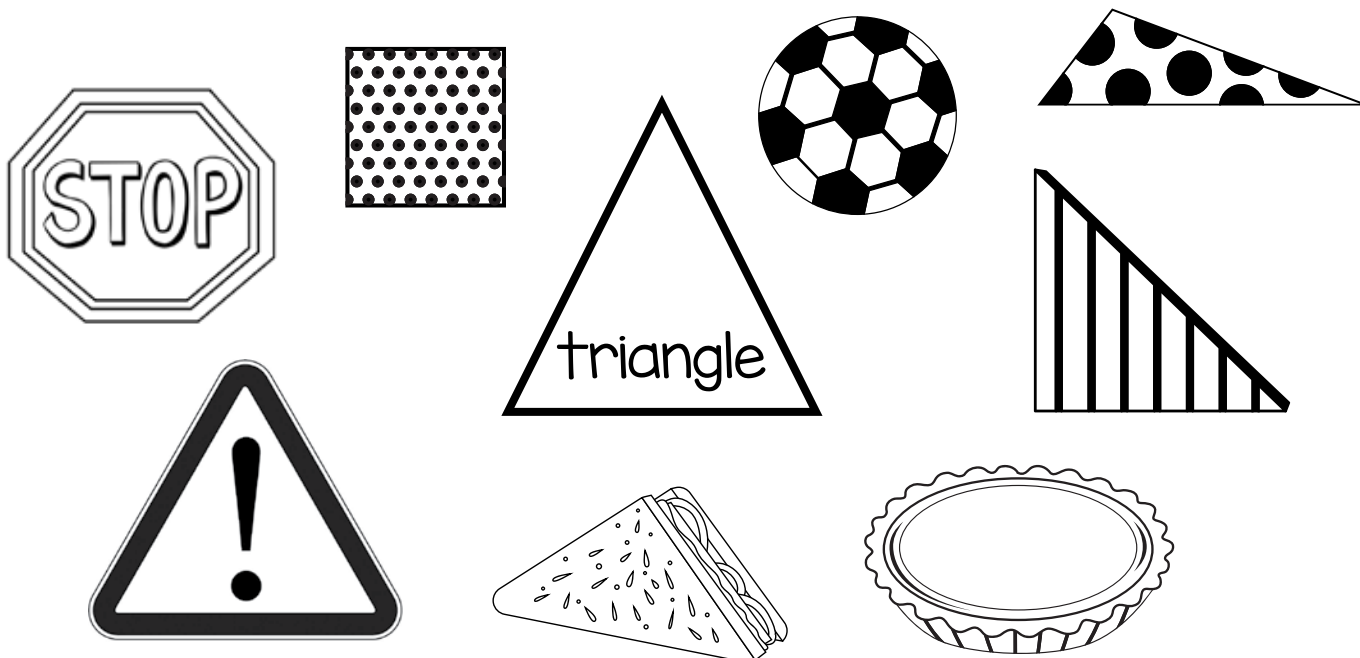


Triangles

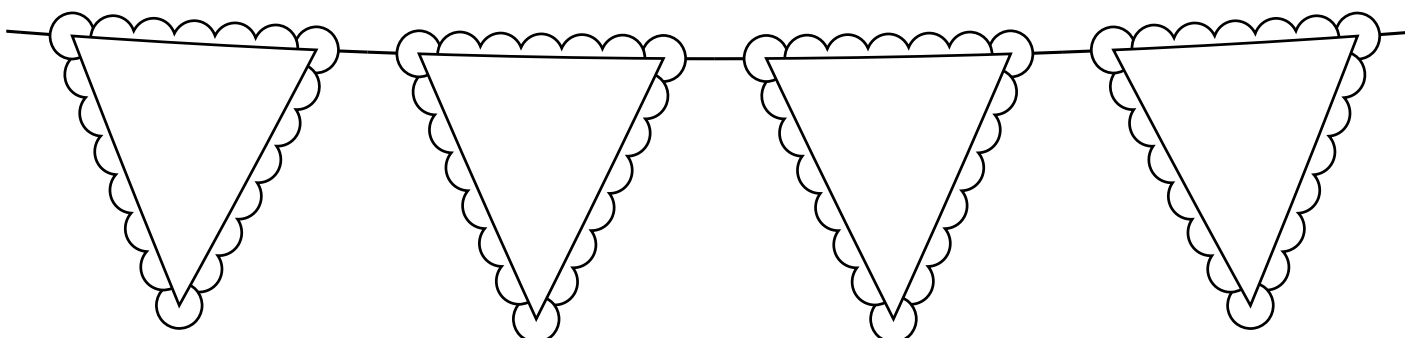
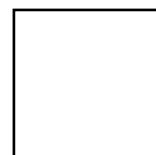
4 Trace.



5 Which pictures are triangles? Match.



6 Colour the flags. How many triangles?



7 Trace the words and match to a shape.

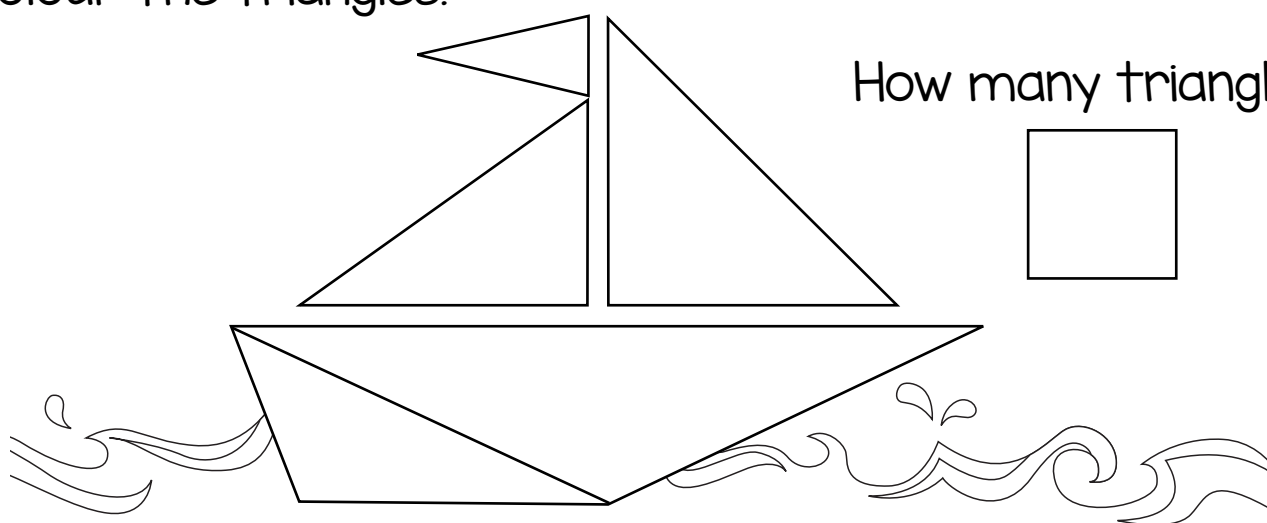
triangle

circle

square

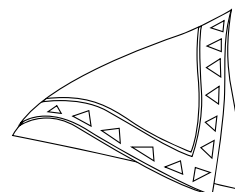
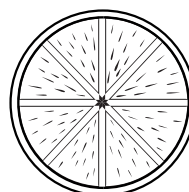
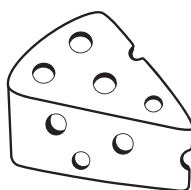
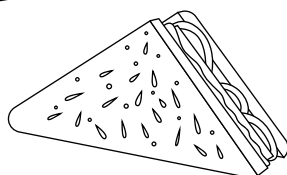


8 Colour the triangles.



How many triangles?

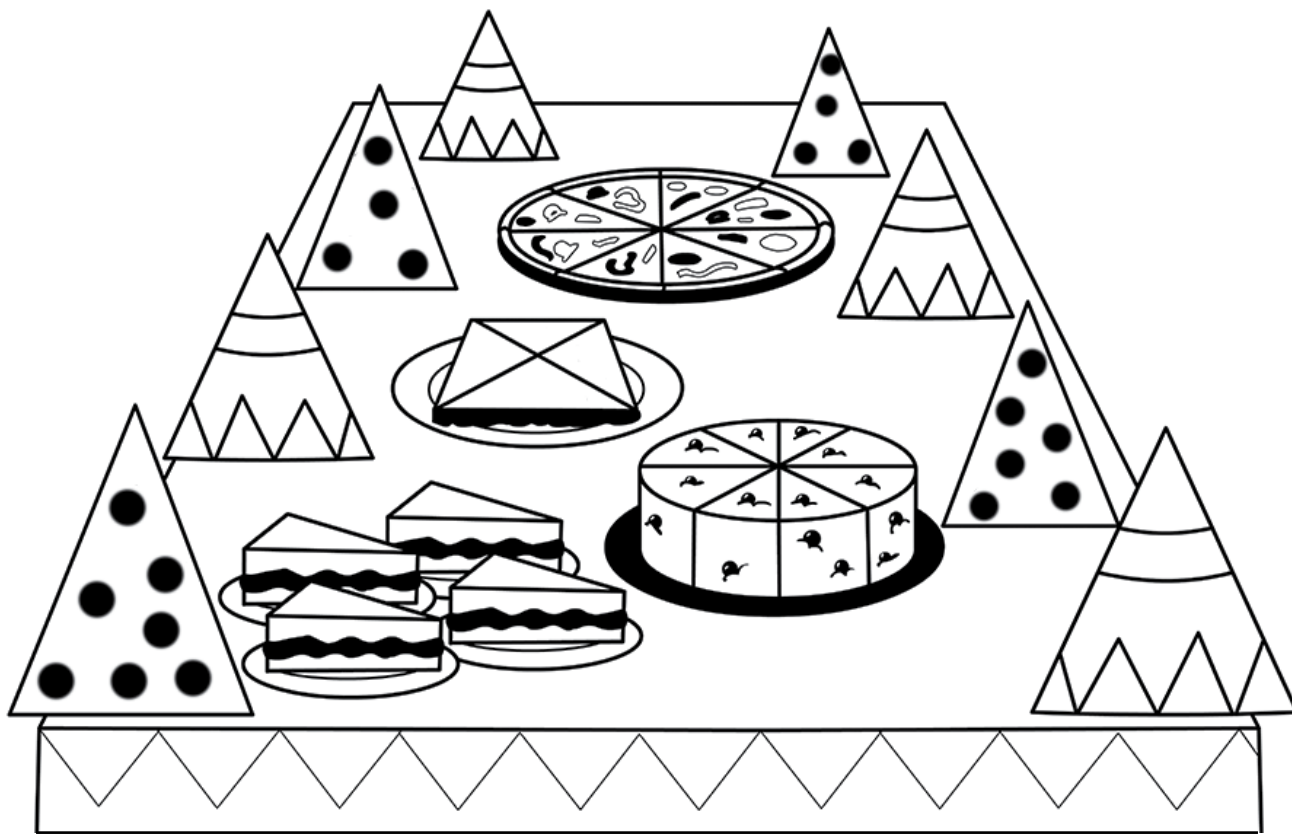
9 Circle the odd one out.



How many triangles?



How many circles?

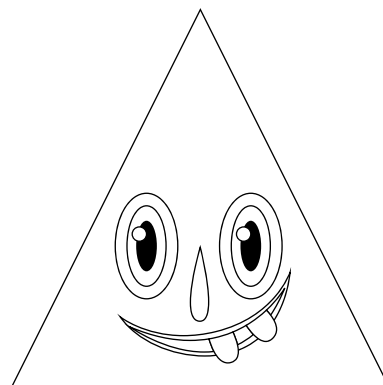
10 Find all the triangles. Colour them in.



11 Circle the correct answers.

Triangles have:

- curved sides 
- straight sides 
- 0 | 2 | 3 | 4 corners




12 Draw the triangles. Colour them.



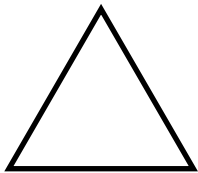
How many triangles?

Practical

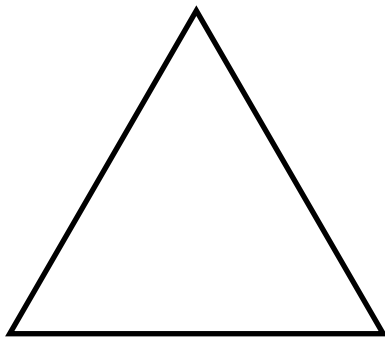
You will need some triangle pattern blocks .

1 Make each shape with the  blocks.

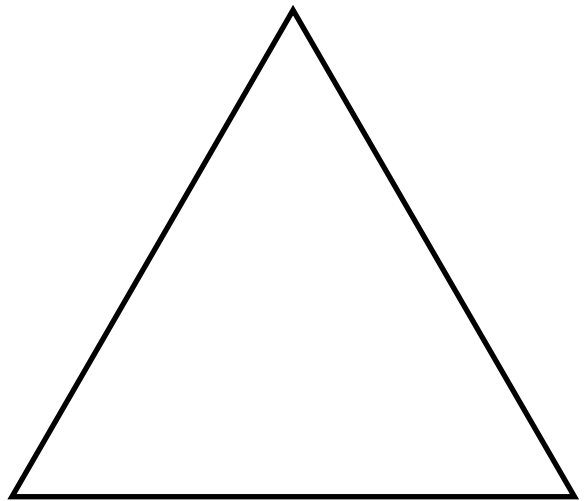
Write the number of blocks for each shape.



_____ blocks



_____ blocks



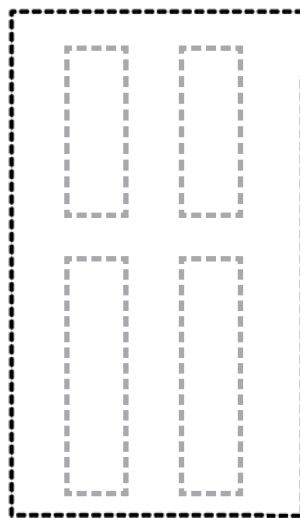
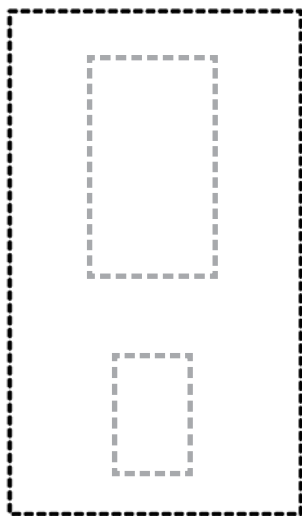
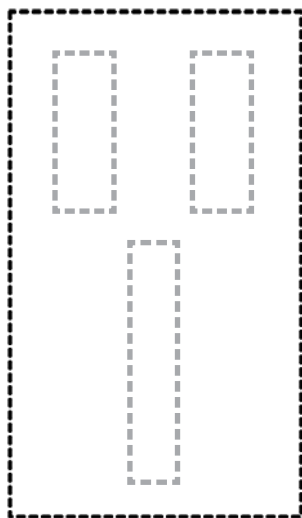
_____ blocks

2 Make your own shape with the  blocks.

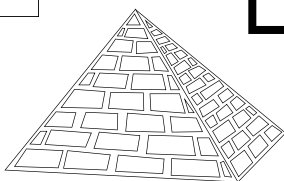
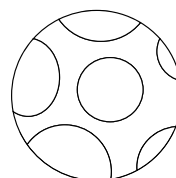
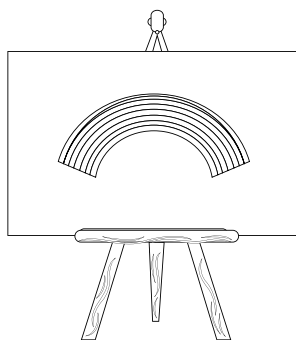
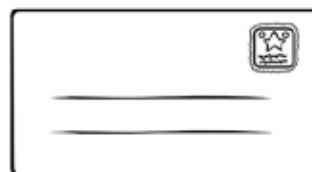
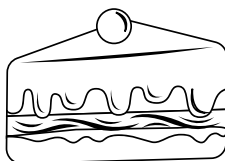
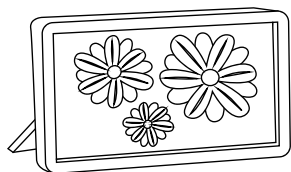
How many  blocks? _____

Rectangles

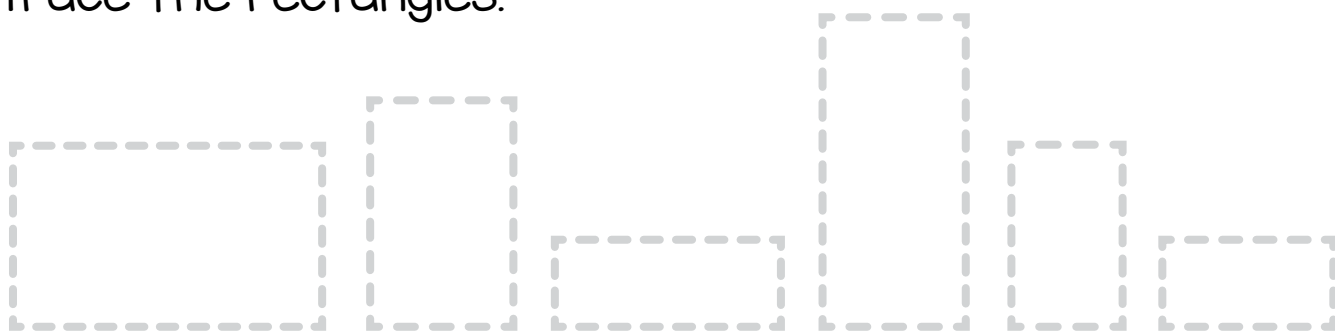
1 Finish Doc's doors. Colour.



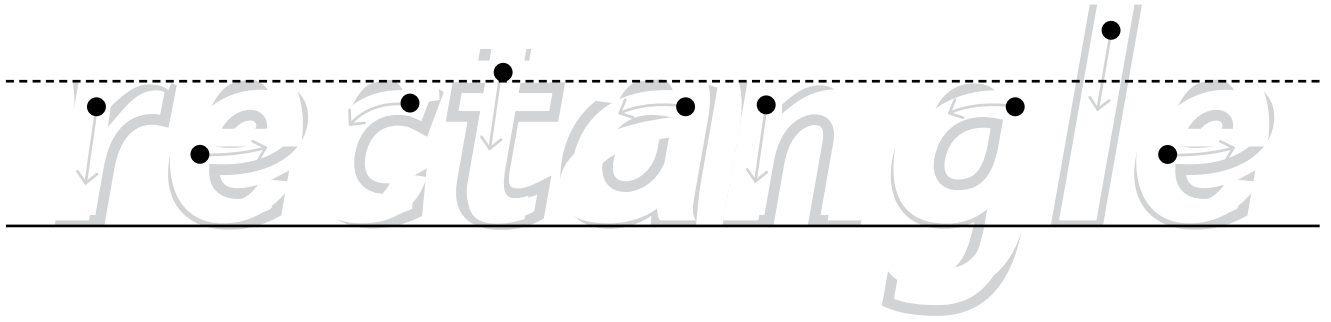
2 Which pictures are rectangles? Match.



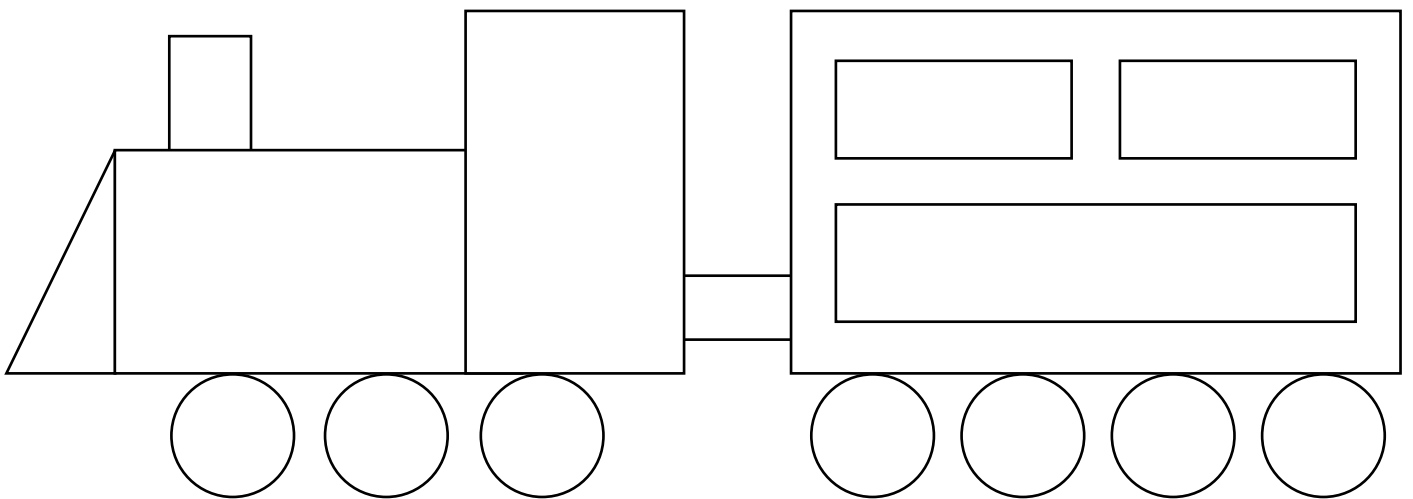
3 Trace the rectangles.



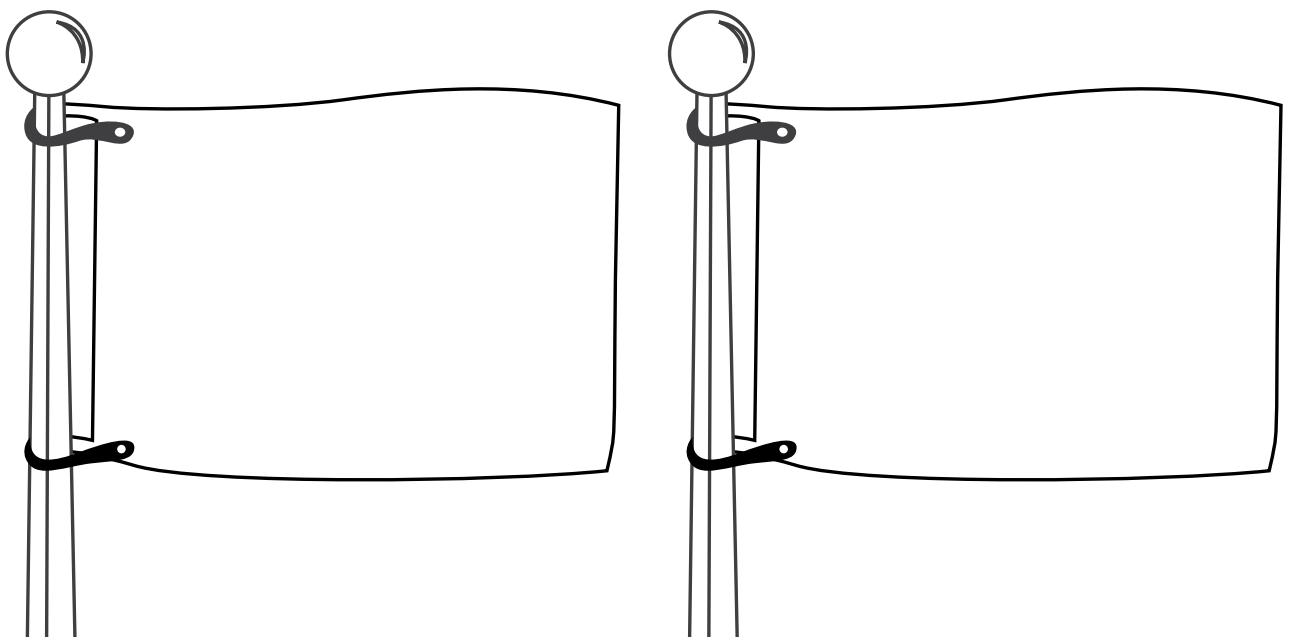
4 Trace.



5 Colour the rectangles.



6 Decorate the flags.

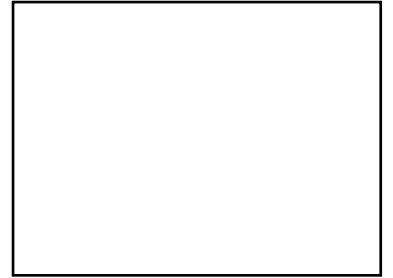
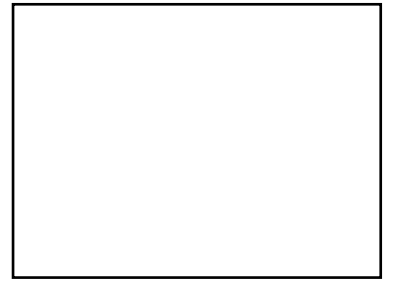


Rectangles

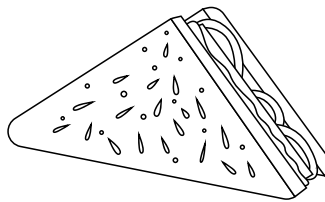
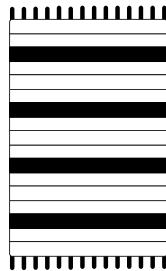
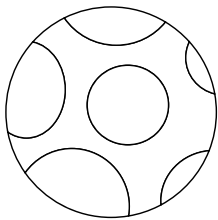
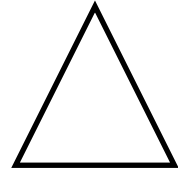
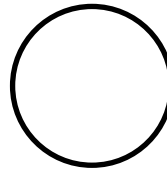
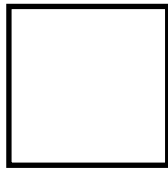
7 Trace the words. Draw the shape.

square

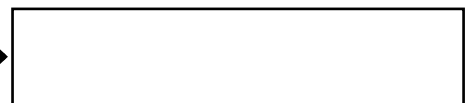
rectangle



8 Match each shape to a picture.





9 Label the sides short or long.



10 Circle the correct answers.

Rectangles have:

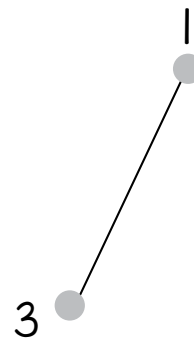
- curved sides 
- straight sides 
- 0 1 2 3 4 corners



11 Join the numbers. Name each shape.



This is a



This is a

12 Finish the patterns.

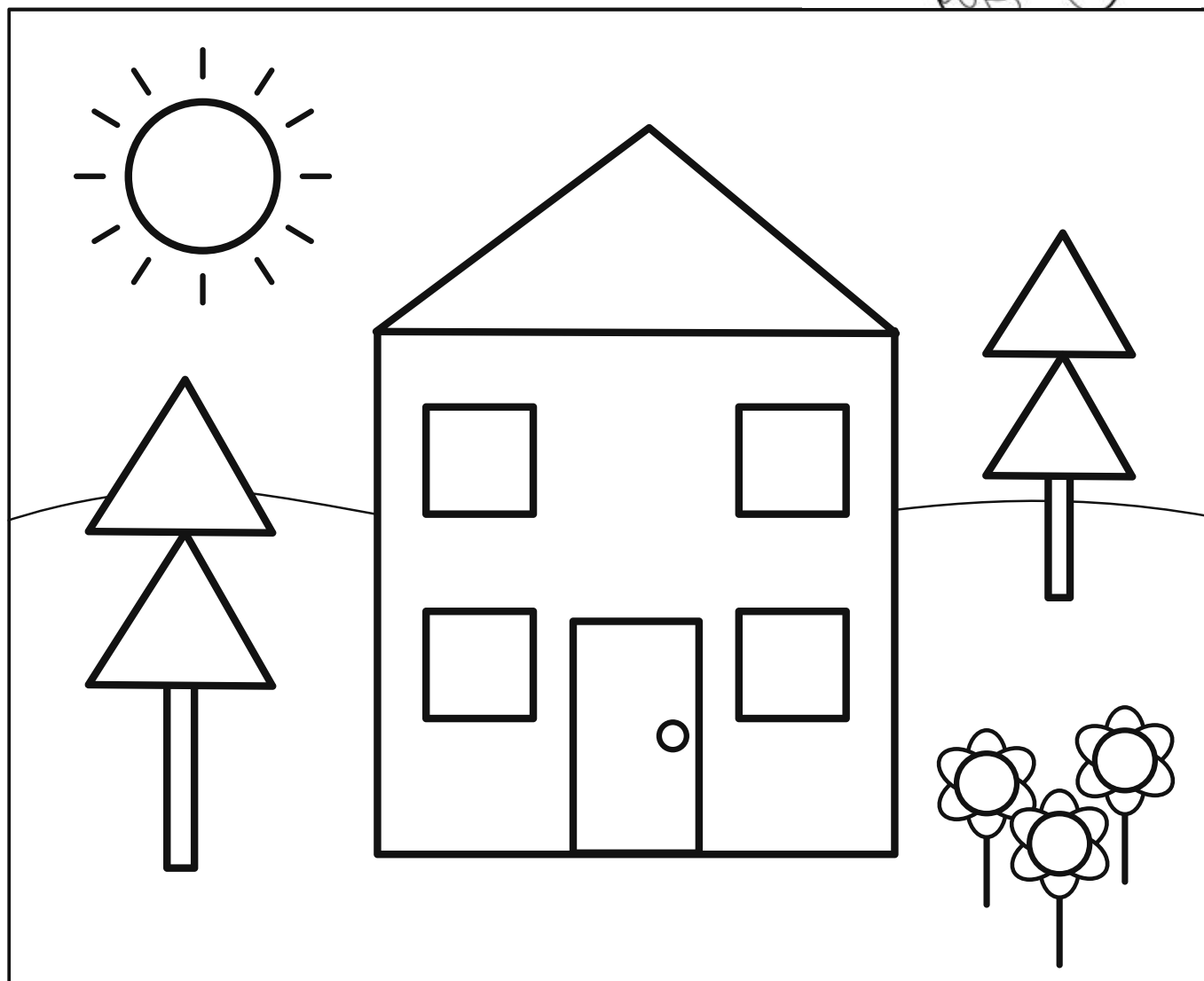


Making new shapes

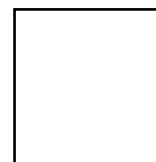
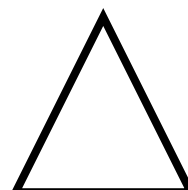
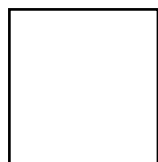
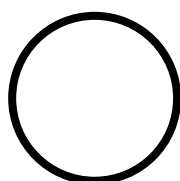
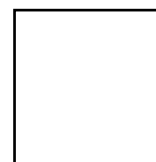
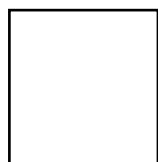
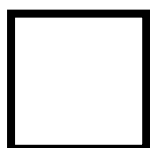
Did you know you can
put shapes together to
make pictures?



Colour:



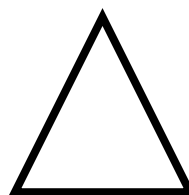
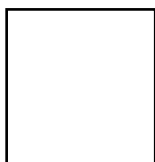
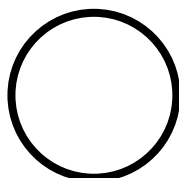
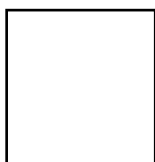
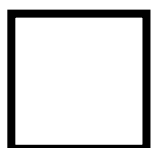
How many?



2 Make your own picture using pattern blocks.



How many?



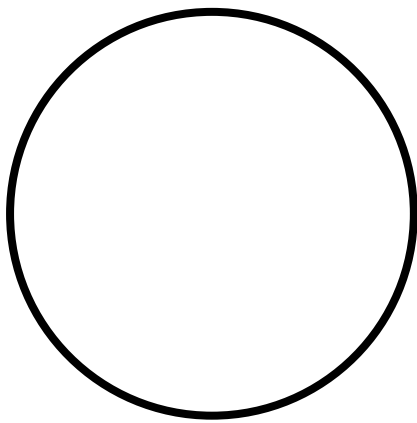
Guess my shape

Game

You will need scissors  and a partner 😊.

HOW TO PLAY

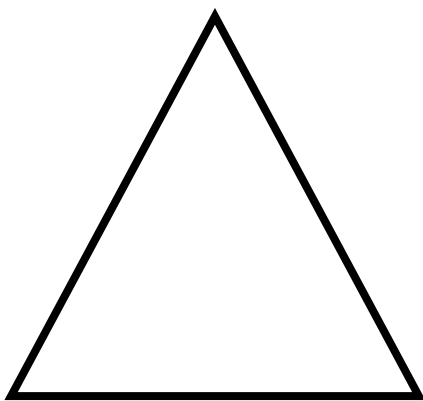
- 1 Cut out the shape pictures.
- 2 Sit back-to-back with your partner. Choose a shape but don't let your partner see it.
- 3 Describe your shape to your partner but DO NOT say your shape's name!
- 4 Can your partner guess the shape?
- 5 Swap over and play again with a different shape.



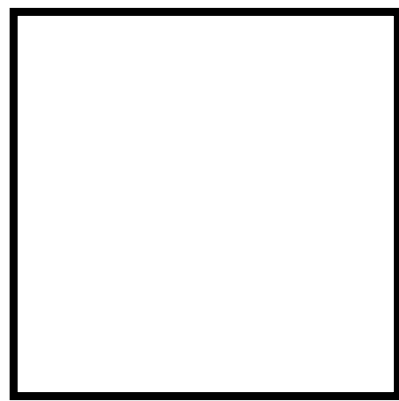
circle



rectangle



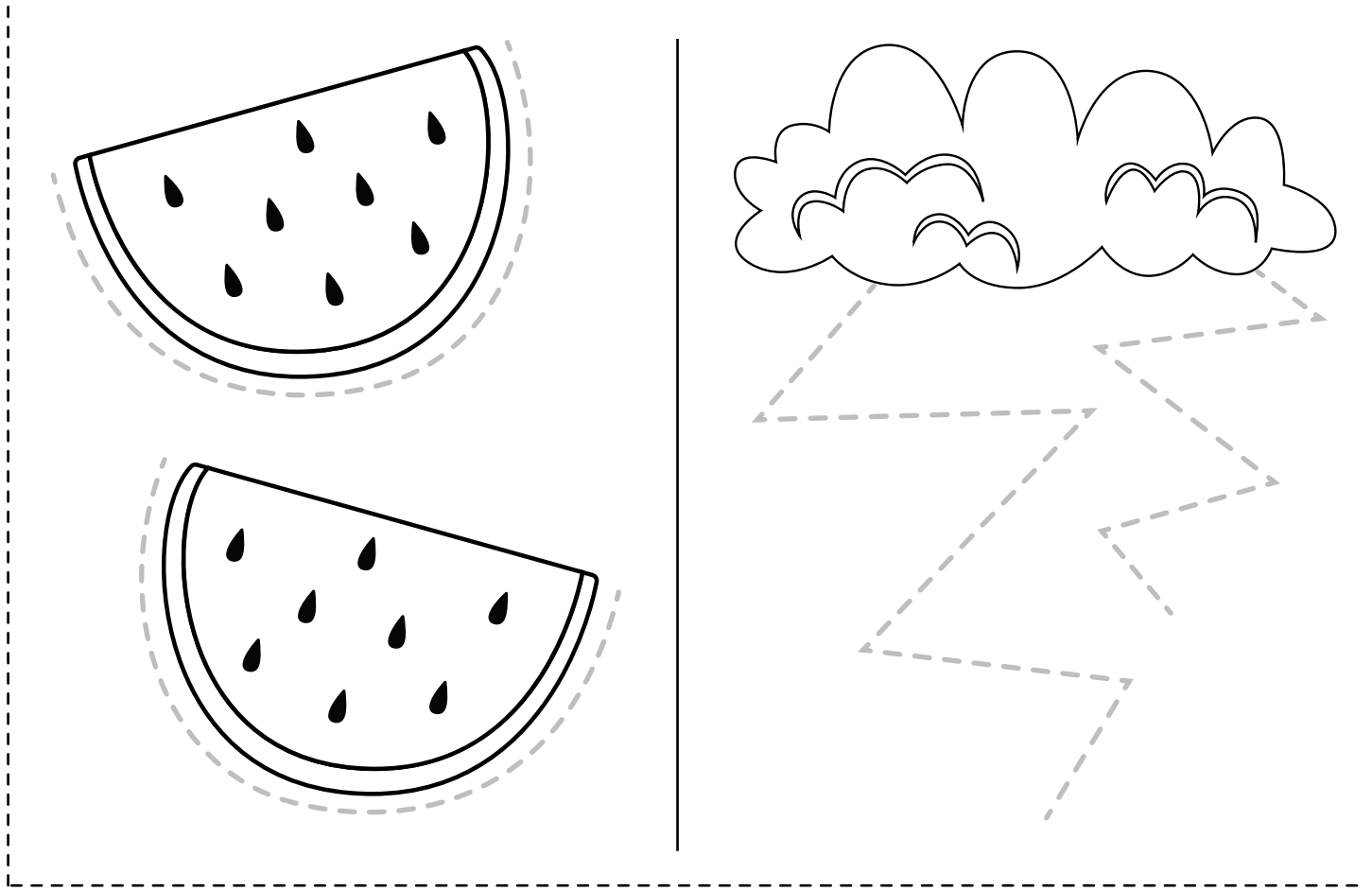
triangle



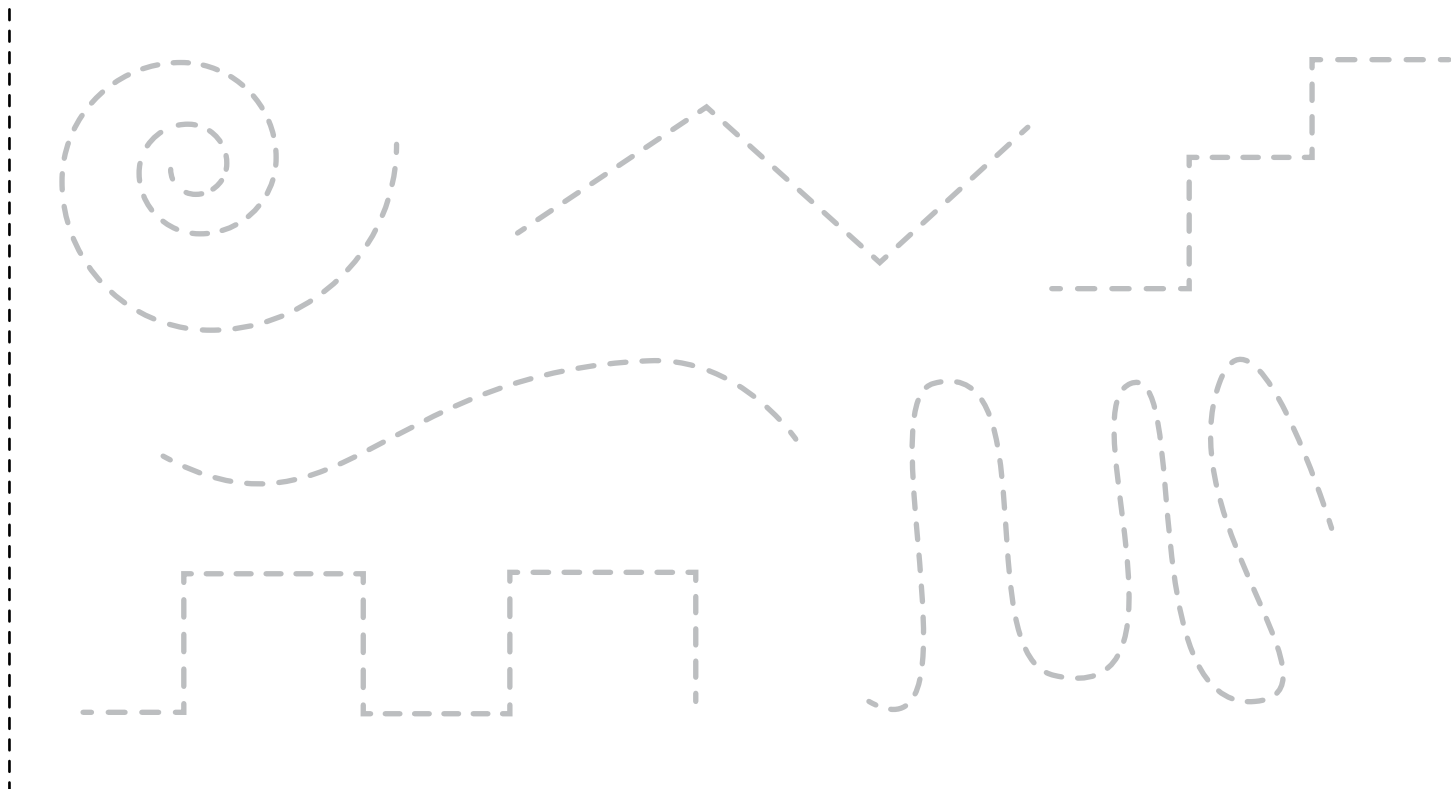
square

Straight and curved lines

1 Finish the pictures.

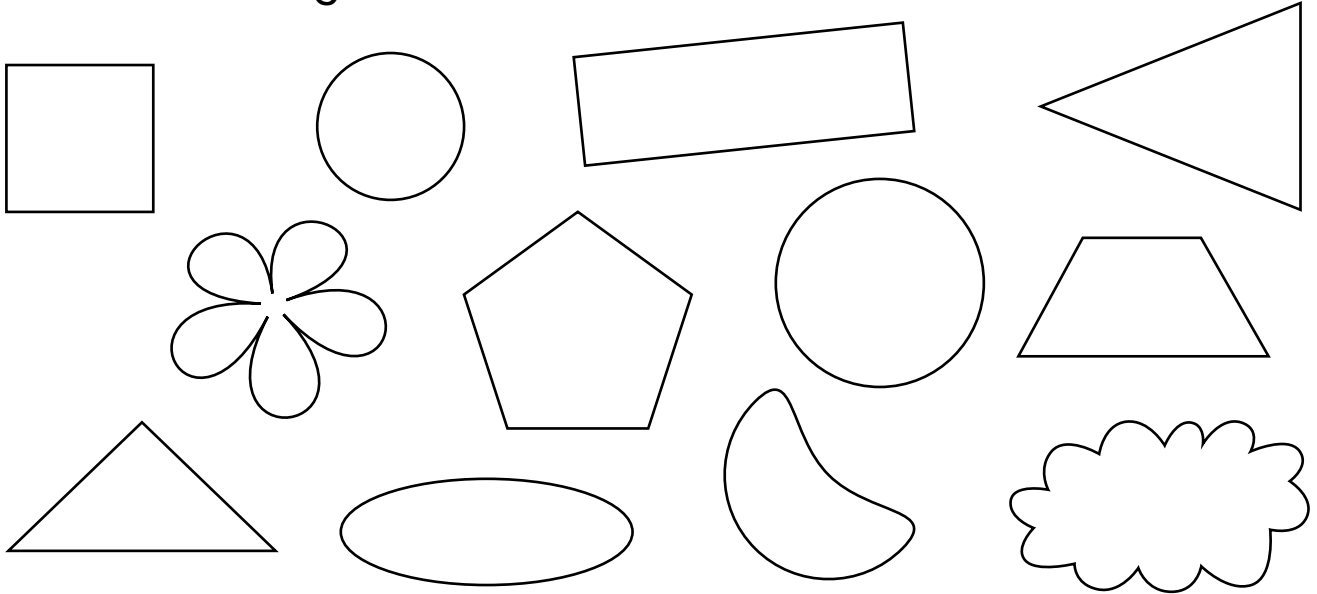


2 Trace the straight lines red. Trace the curved lines blue.



Straight and curved lines

- 3** Colour the shapes with straight sides pink, curved sides green.



- 4** Draw a shape

with straight lines.

with curved lines.

- 5** Trace.

curved

straight



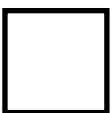
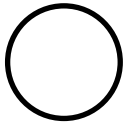


6 Complete. ✓ = yes X = no

rectangle

triangle

circle

square

shape	name	straight sides? 	curved sides? 
	<i>square</i>	✓	X
			
			
			

7 Draw a shape with 3 straight sides and 1 curved side.

Doc's shapes

Problem solving

1 Read.

Doc has a box with lots of circles and lots of squares.
He picks out 3 shapes and puts them down in a line.
What 3 shapes could they be?



2 Underline the question.






3 Circle the shapes and numbers.

4 Make patterns. Draw the pictures.

5 I found _____ different ways to solve the problem.

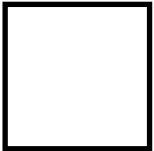
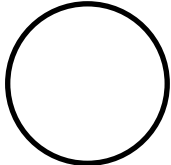

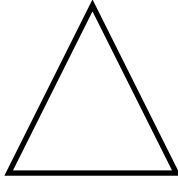
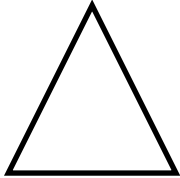
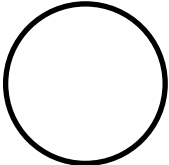
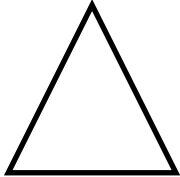
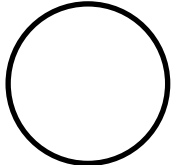

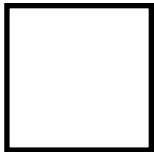

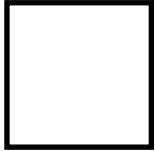
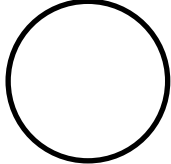
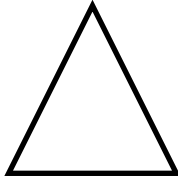

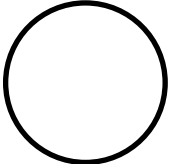

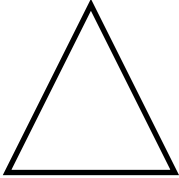
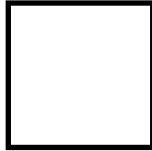
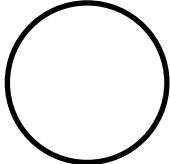
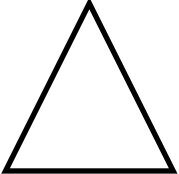
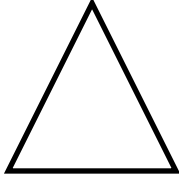
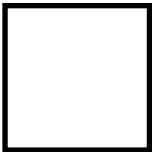
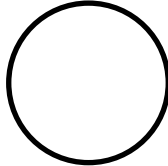

Spin a shape

Game

You will need a spinner , a paperclip , a pencil ,
2 coloured crayons  (one for each player)
and a partner .

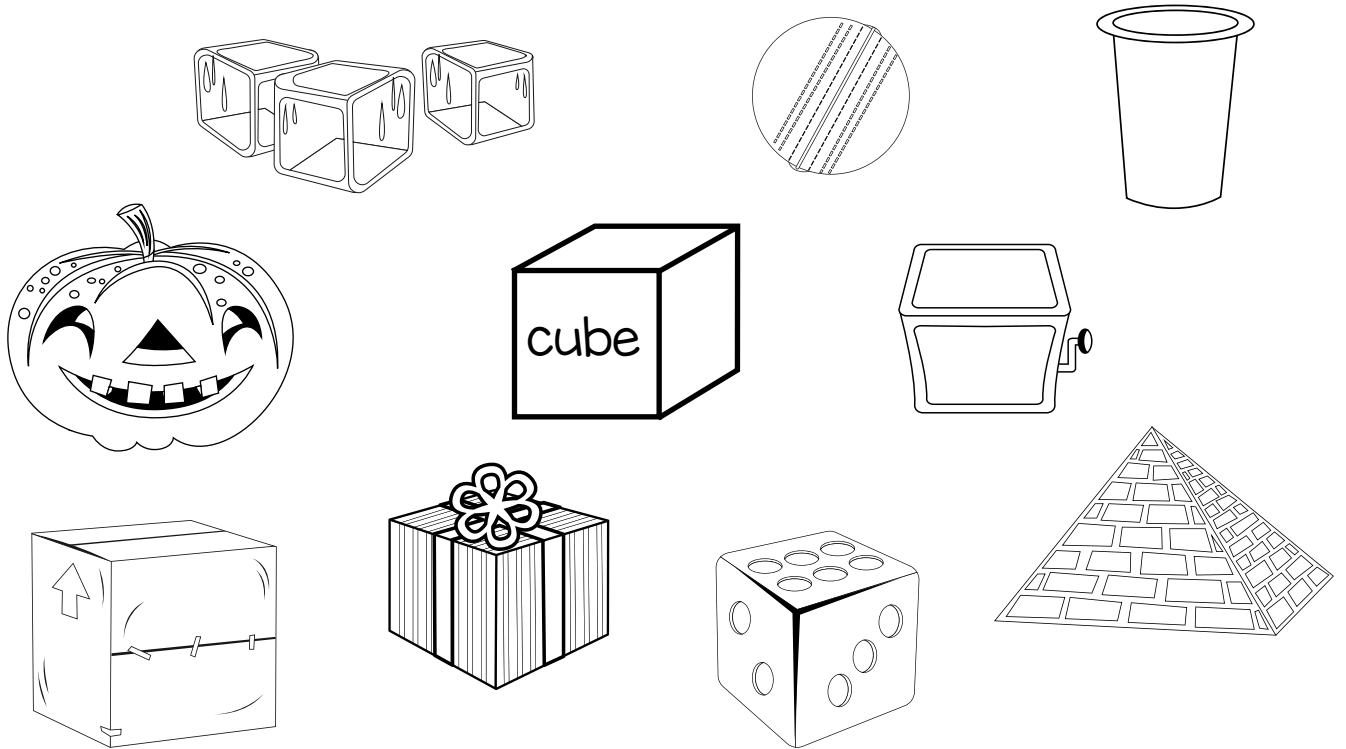
HOW TO PLAY

- 1 Make the spinner from a cardboard circle, paperclip and pencil. Write the numbers 3, 4, 0, 4 on the spinner.
- 2 Take turns. Spin a number and colour a shape that has the matching number of sides. *0 = circle.
- 3 The first person to colour 5 in a row wins the game.

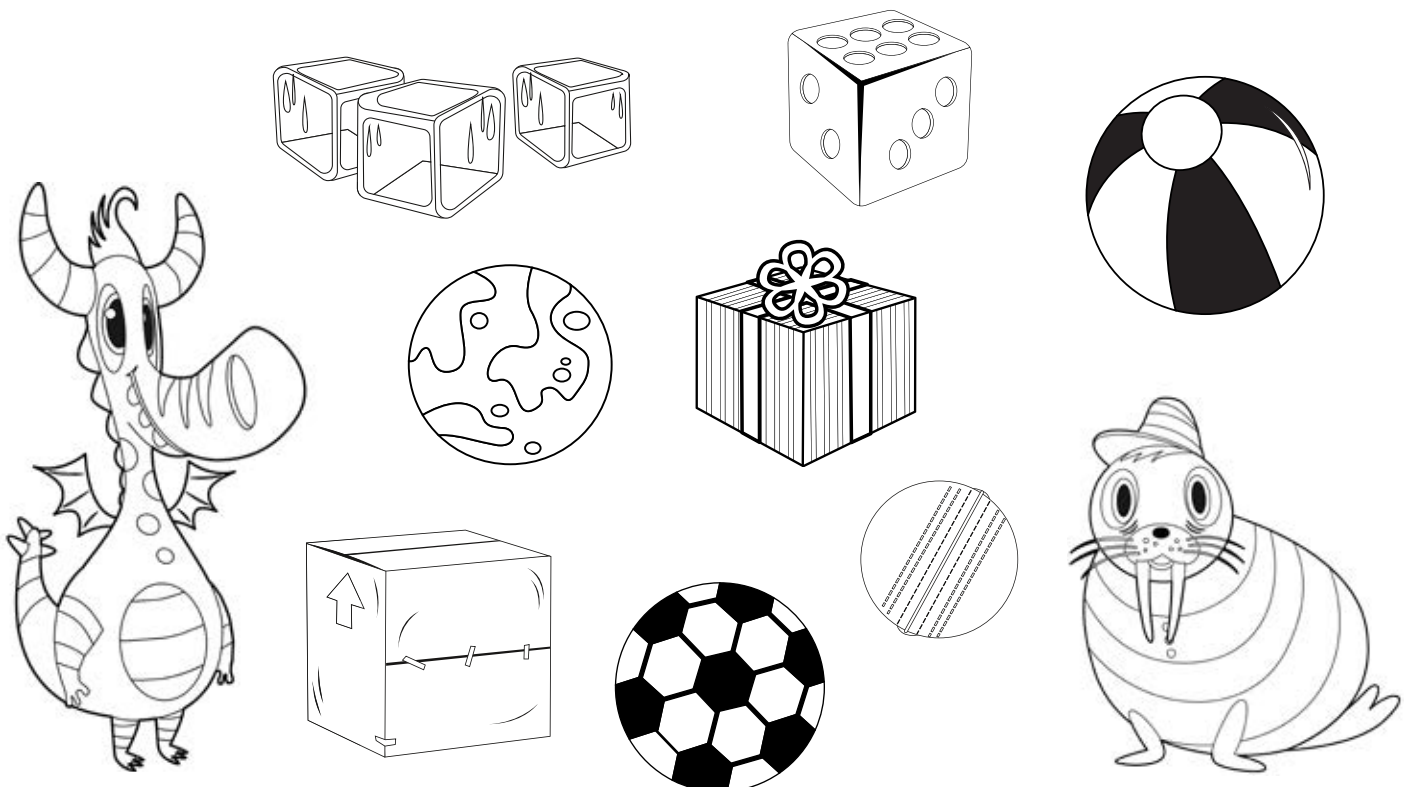
				
				
				
				
				

Cubes and spheres

1 Which pictures are cubes? Match.



2 Join Dizzy to the spheres and Waldo to the cubes.

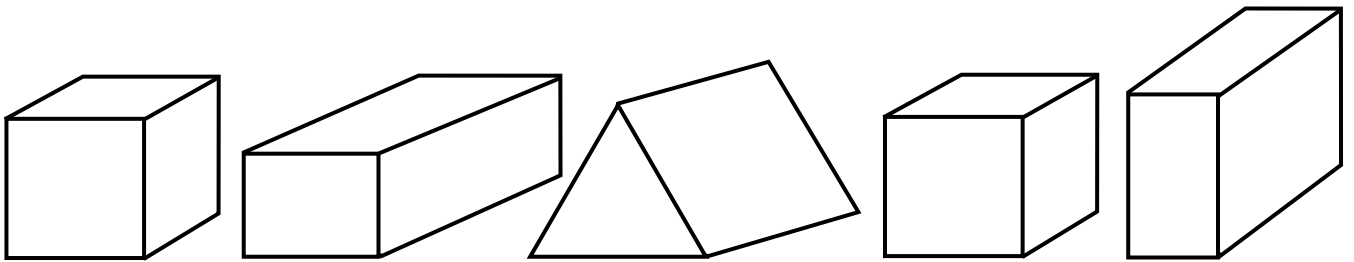


3 Trace and write.

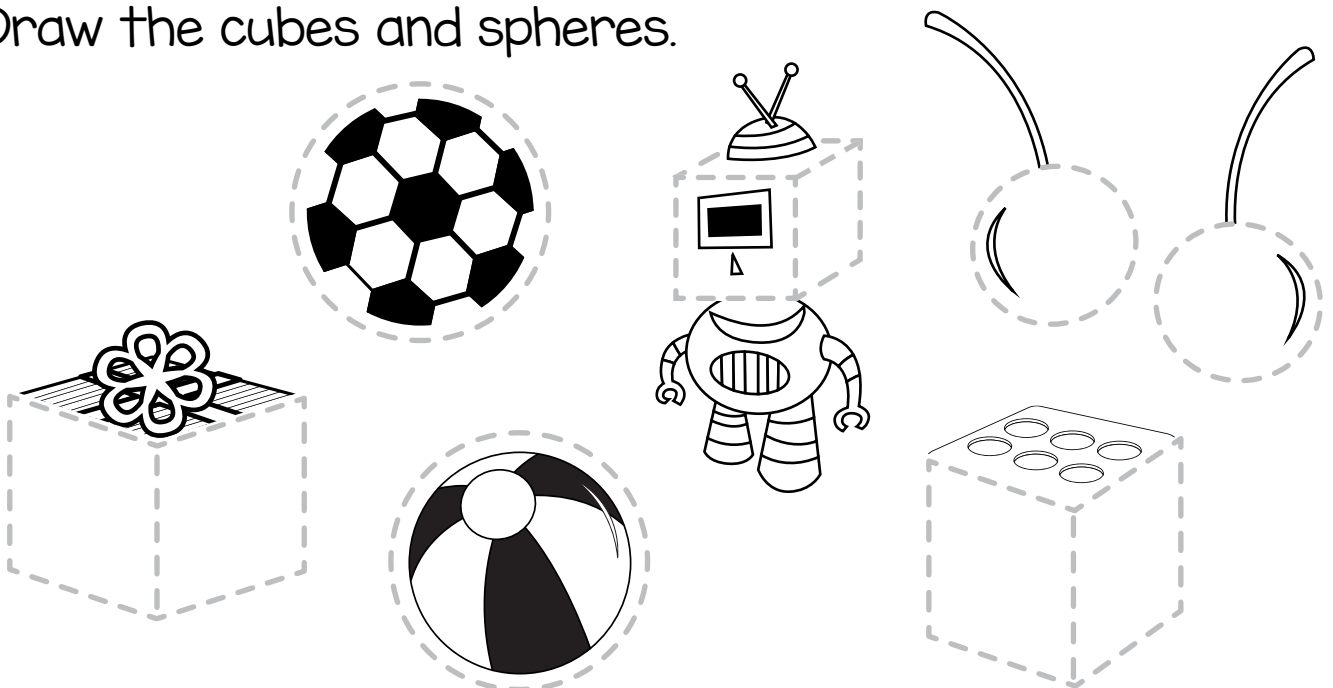
cube

sphere

4 Colour the cubes.

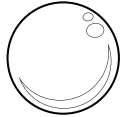
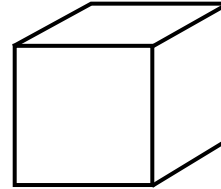
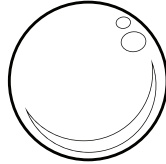
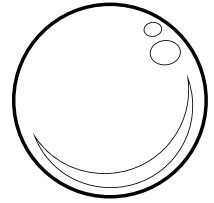
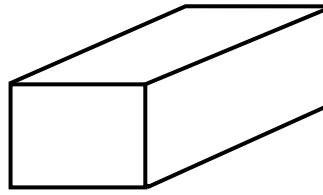
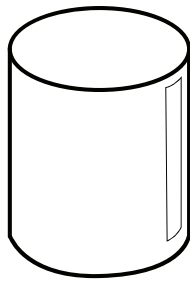
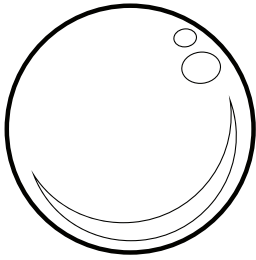


5 Draw the cubes and spheres.

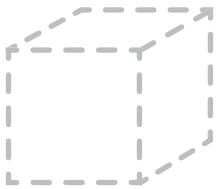


Cubes and spheres

6 Colour the spheres.

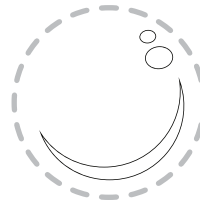


7 Trace and colour. Write the shape name.



This is a

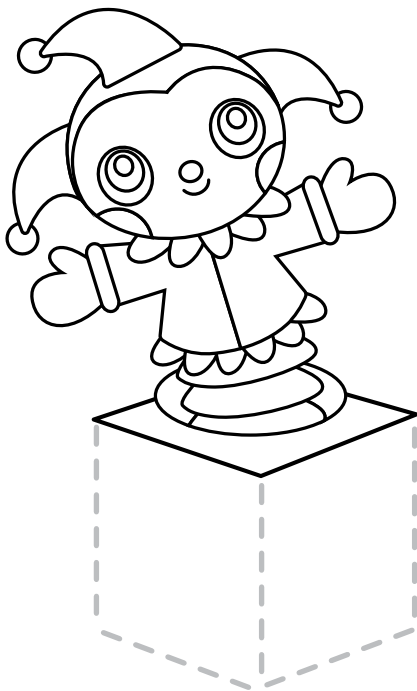
c



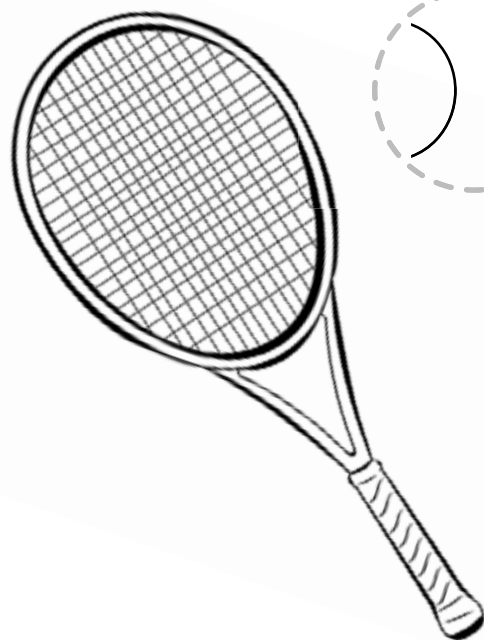
This is a

s

8 Draw

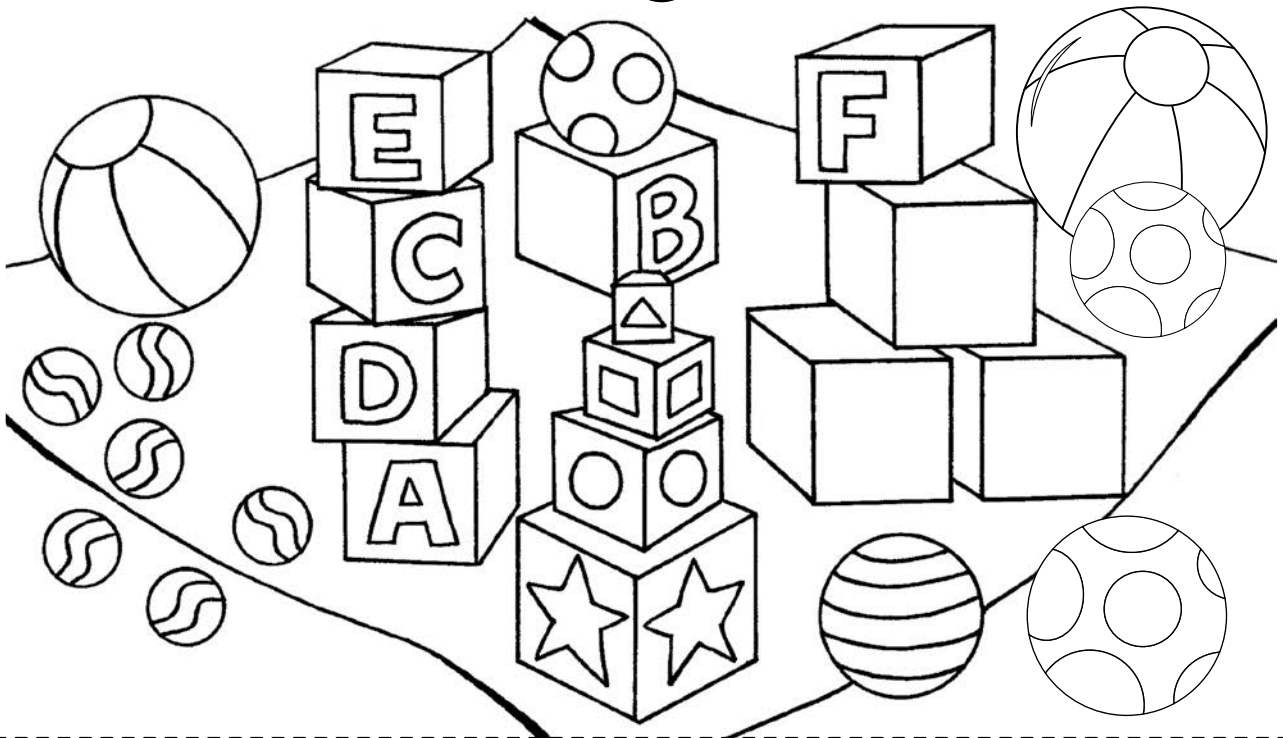


the cube

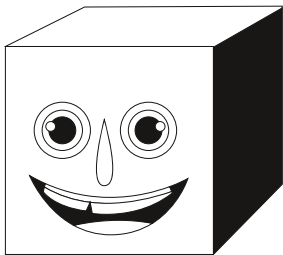
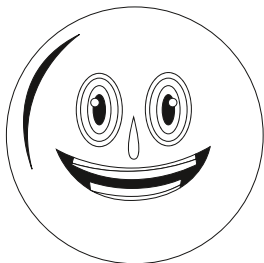


the sphere

9 Colour  = blue. Colour  = red.



10 Match.



cube

sphere

round

8 corners

square sides

no corners

11 Name objects that are shaped like a sphere.

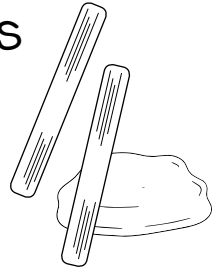
12 Name objects that are shaped like a cube.

Make a cube

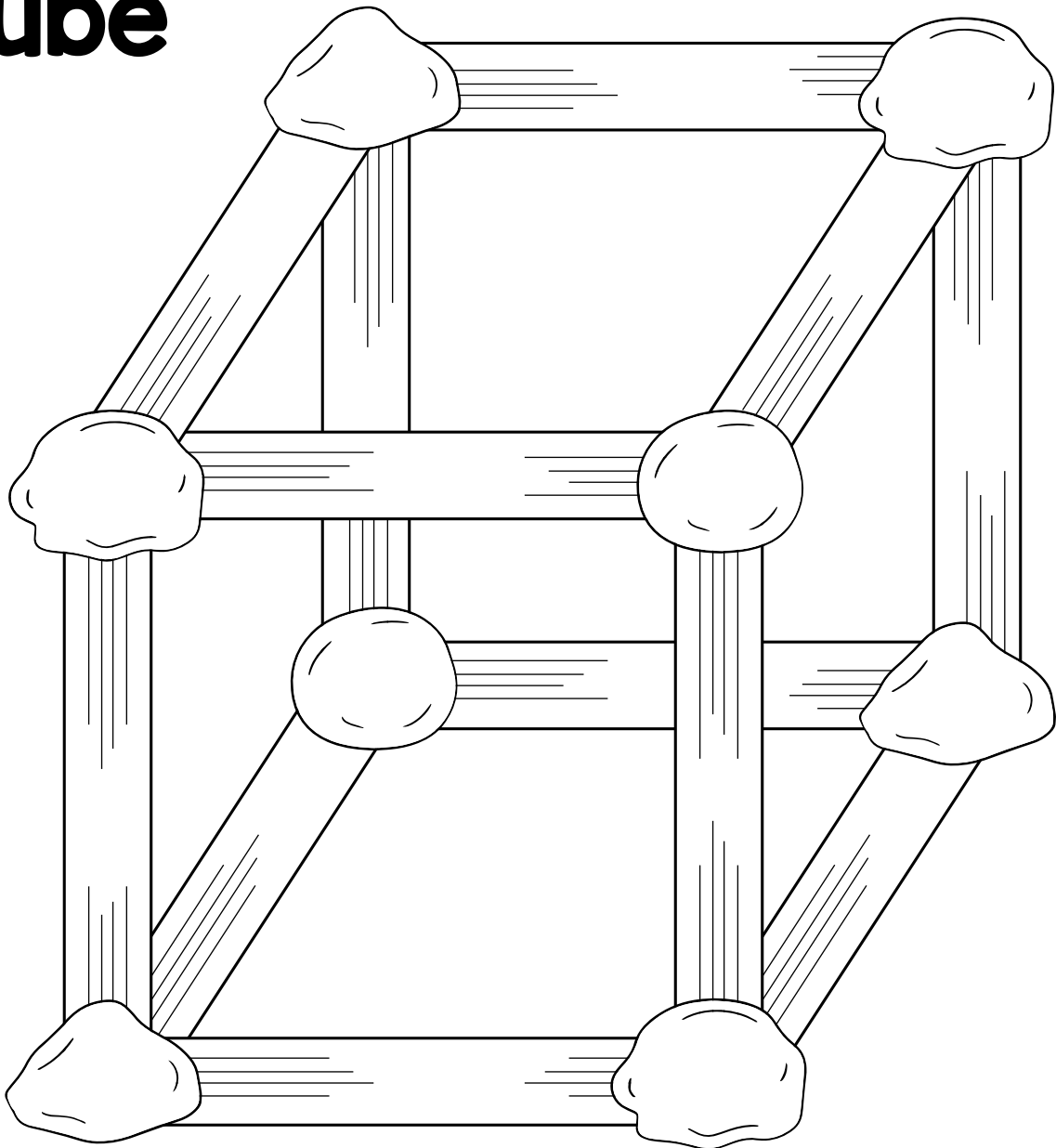
Practical activity

You will need 12 pop sticks or toothpicks
and 8 small balls of playdough.

Look at the picture. Make it!



cube



How many sides?

How many corners?

Roll it!

Game

You will need playdough , a chair, a piece of wood or cardboard and a partner 😊.

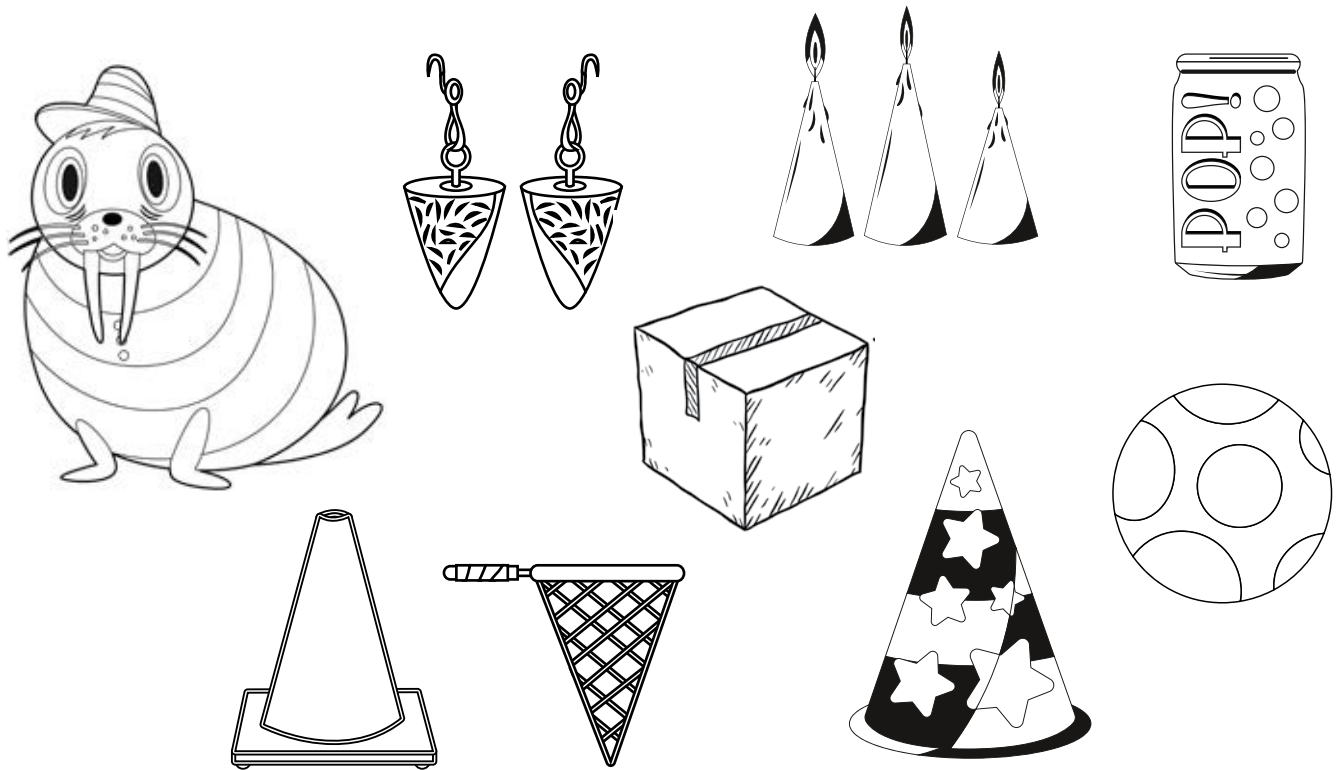
HOW TO PLAY

- 1 Roll the playdough into 5 different sized spheres.
- 2 Balance the wood against the chair to make a ramp.
- 3 Start by putting the smallest sphere at the top of the ramp. Your partner puts their smallest sphere there too.
- 4 On the count of 3, let go and watch your spheres roll down the ramp. Whose sphere rolled the furthest?
- 5 Record your results and repeat 4 more times.
Put a tick under the winner's name.

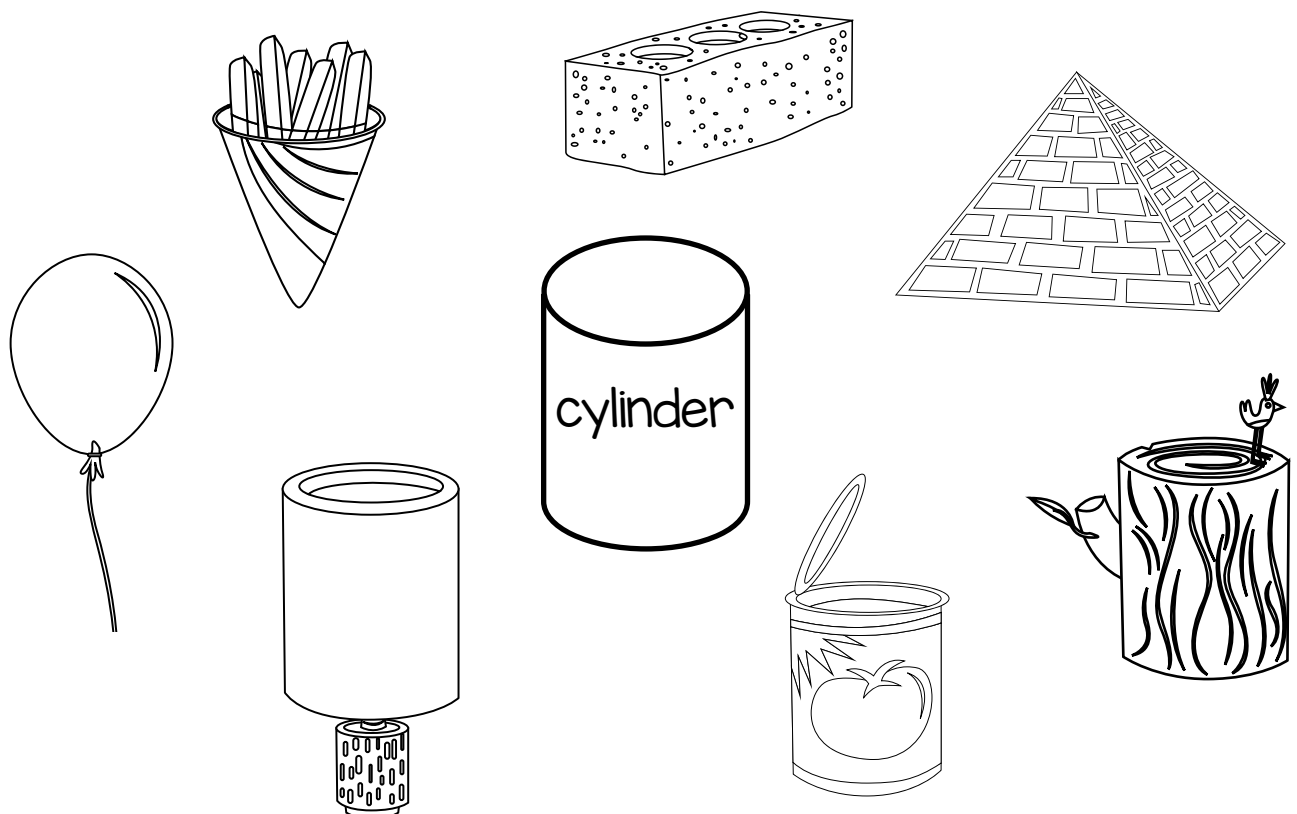
Roll	Name:	Name:
1		
2		
3		
4		
5		

Cones and cylinders

1 Join Waldo to the cones.



2 Which pictures are cylinders? Match.

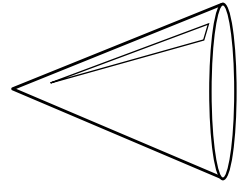
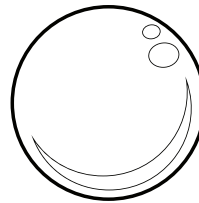
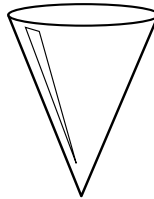
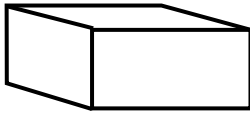
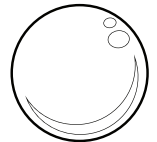
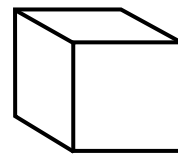
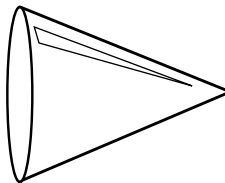
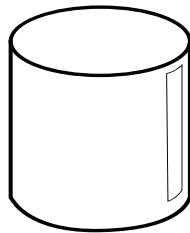
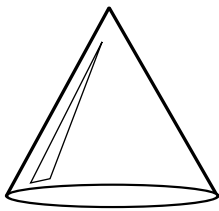


3 Trace and write.

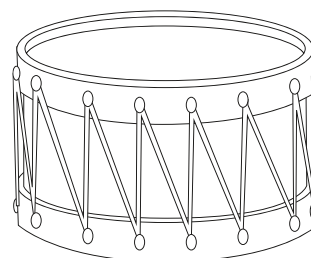
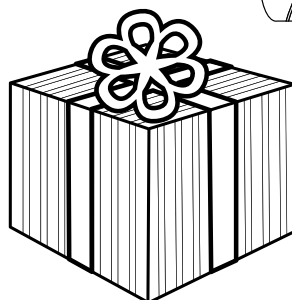
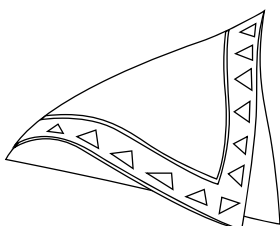
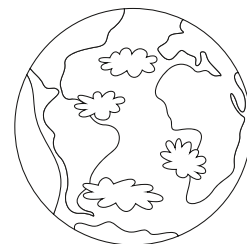
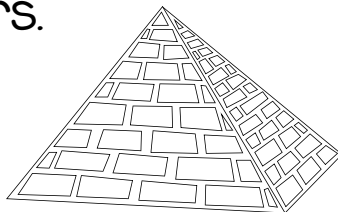
cone

cylinder

4 Colour the cones blue.

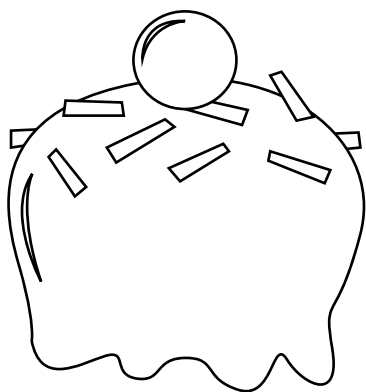


5 Colour the cylinders.

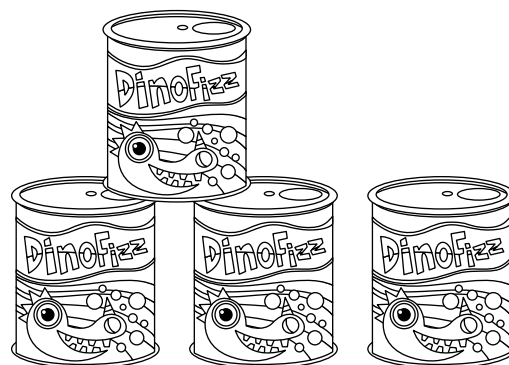


Cones and cylinders

6 Draw



an ice-cream cone.

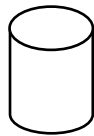


2 more cans.

7 Colour



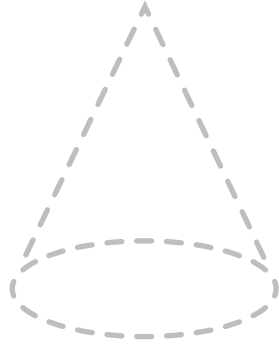
red.



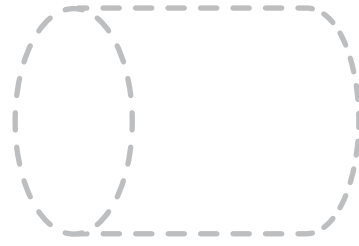
green.



8 Trace.



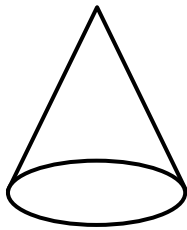
This is a



This is a



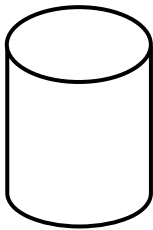
9 Match.



cylinder

pointy end

2 flat round faces



cone

1 round face

10 Name objects that are shaped like a cylinder.

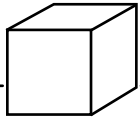
11 Name objects that are shaped like a cone.

Find it!

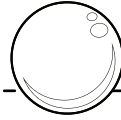
Practical activity

1 Have a look around your environment.
Can you find any 3D objects?

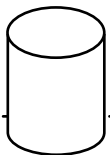
2 Draw them in the correct boxes.



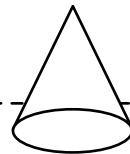
cube



sphere



cylinder



cone

Ruby's shapes

Problem solving

1 Read.

Ruby has lots of cones and lots of spheres.

She picks out 3 objects and puts them down in a line.

What 3 objects could they be?



2 Underline the question.

3 Circle the objects and numbers.

4 Make patterns. Draw the pictures.

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



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5 I found _____ different ways to solve the problem.

In the bag

Game

You will need various 3D objects that are shaped like a cube , a sphere , a cylinder  and a cone .

You will also need a bag and a partner 😊.

HOW TO PLAY

- 1 Put the 3D objects into the bag so that they cannot be seen.
- 2 Close your eyes, put your hand in the bag and feel for an object.
- 3 Carefully describe how the object feels to your partner. Can you guess what it is?
- 4 Swap over and play again.

WORD BANK

cone

flat

straight

cube

corners

sides

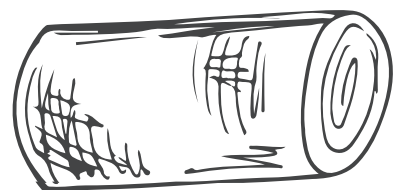
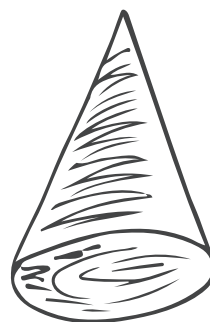
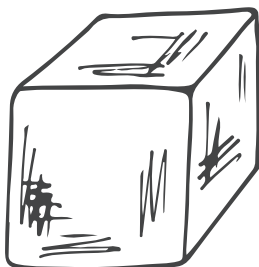
pointy

curved

cylinder

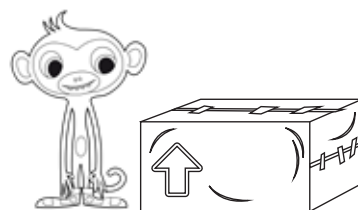
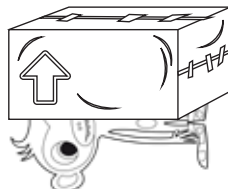
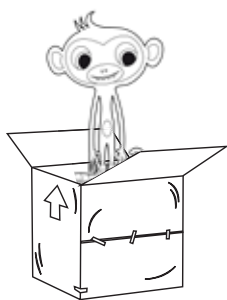
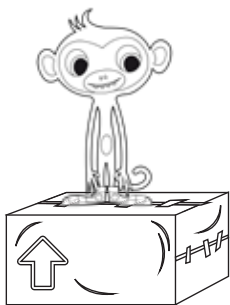
round

cone



Position

I Match.



inside

underneath

next to

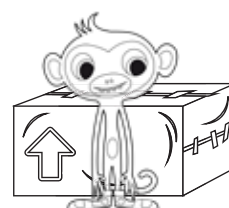
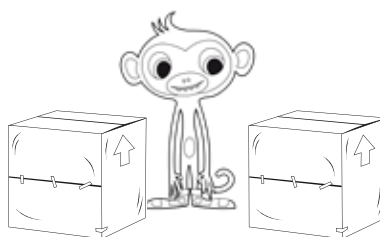
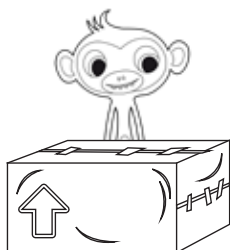
on top

above

in front

behind

between



2 Draw



a circle next to Dizzy.



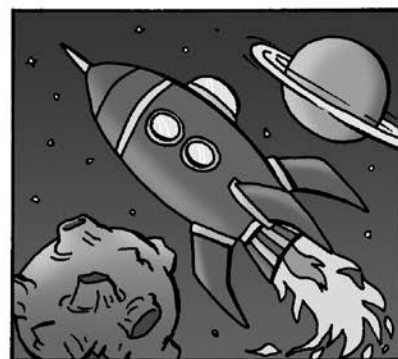
a square above Doc.

3 Match each word to a picture.



on top

next to



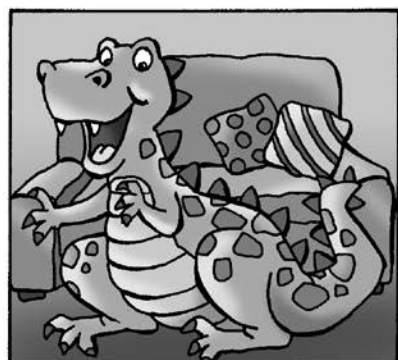
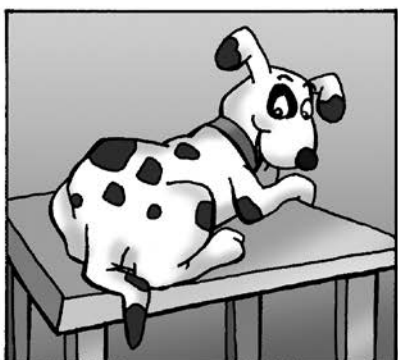
between

under



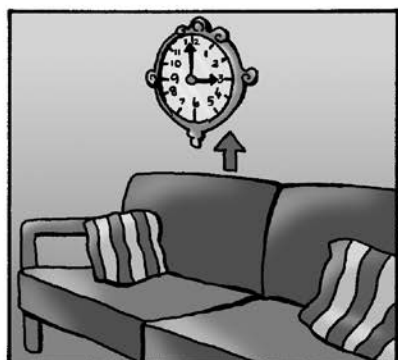
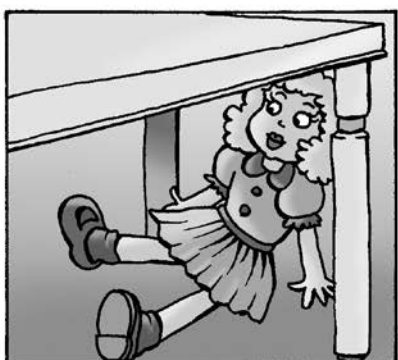
above

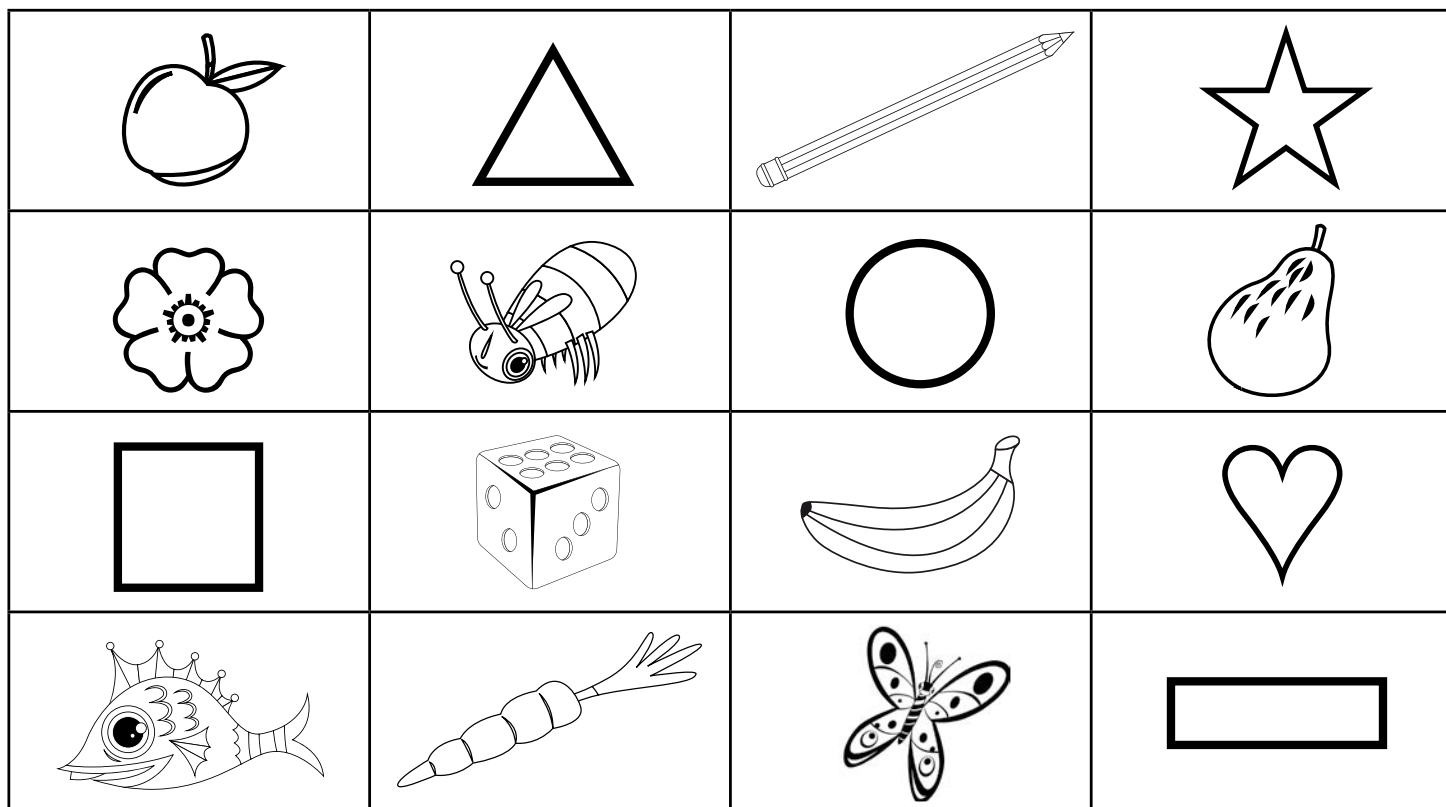
behind



in front

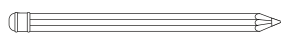
inside



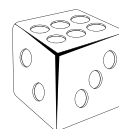
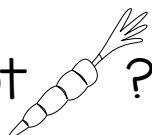


4 Colour the answer. Which item is:

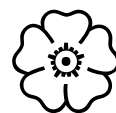
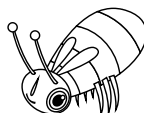
above the circle ○ ?



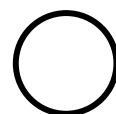
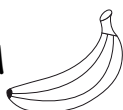
above the carrot ?



below the apple ?



below the banana ?



between the triangle △ and the star ☆ ?






5 Draw

a fishbowl  on the table.

a cat  in front of the sofa.

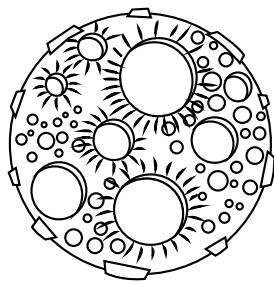
a ball  under the table.

a picture  above the sofa.

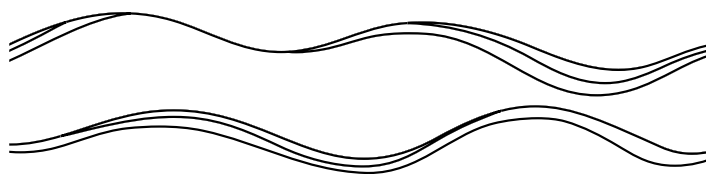
a balloon  between the table and the door.

a book  on the rug.

6 Draw

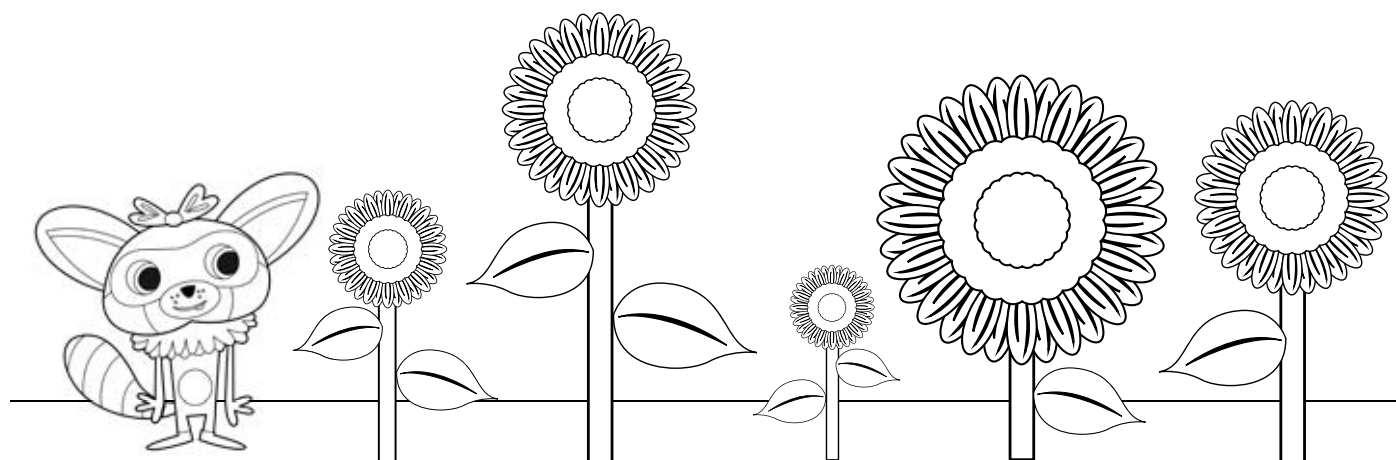


a star below the moon.



a bird above the water.

7 Colour



the flower closest to Ruby red.

the flower furthest away blue.

the smallest flower yellow.

the tallest flower green.

the biggest flower purple.


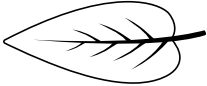




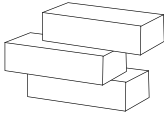



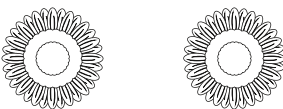
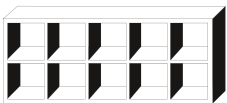

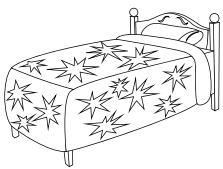





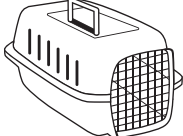

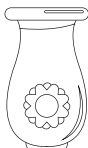
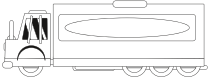
X marks the spot!

Game

You will need a die  and a partner 😊.

HOW TO PLAY

- 1 Take turns. Roll a die and find the row that matches your number.
- 2 Start from the first box. Read the word and draw an X in the correct place.
- 3 The winner is the first person to finish 4 rows.

	on 	under 	between 
	next to 	on top 	inside 
	behind 	between 	on top 
	on 	next to 	under 
	between 	below 	inside 
	next to 	on top 	below 