



Shapes



Parents Notes

Hi!

In this sequence of lessons children will learn about shapes.

Hope you have some fun!

session 1 ---identify solid shapes

session 2 ---recognise/ name shapes

session 3 --group shapes by size, colour, properties

session 4 make patterns

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Parents Notes

If you have pipe cleaners these are a great way to explore which shapes your child is familiar with and also for them to explore the properties (how a shape is formed) of different shapes.
Say a shape name and race each other to make it.
Another great medium is playdough.



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Parents Notes

Look at the picture and explore different shapes they can see.

Ask

Can you find any of these shapes in your home?

Can you name the shapes?



In TPs
discuss
what shapes
you can see...



Parents Notes

This is just a check that children understand 3D shapes.

To explain 3D simply say you can pick it up (anything that is 2D is flat therefore it cannot be picked up).

Draw a shape on a piece of paper and ask your child to pick up the square (Not the paper- interesting conversations will follow! Let us know their comments!

Let's Learn



Check:

Did you say circle or sphere for the balls? They are spheres.

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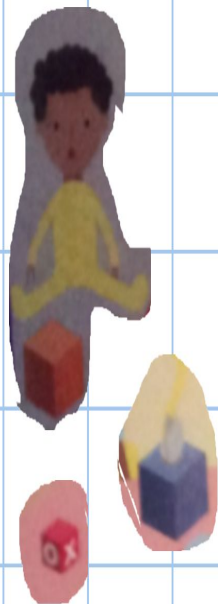


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Parents Notes

Just reinforcing the
mathematical language.



Check:

Did you say squares or cubes for the
boxes? They are cubes.

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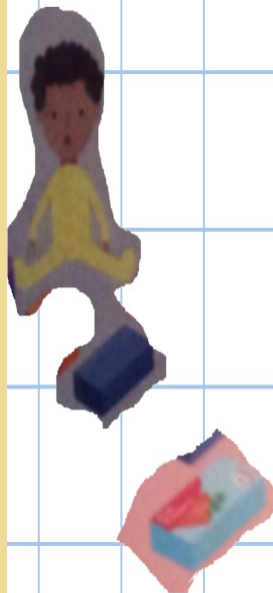
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Parents Notes



Check:

Did you say squares/ rectangles or cuboids for these boxes? They are cuboids.

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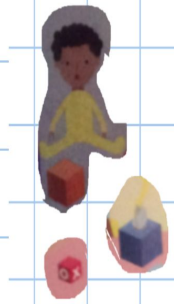


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Parents Notes

This is just to make it clear to the children what it is that they are learning. It helps them to understand and have ownership of their learning. As they look through their books they can explain what they had done.



Today we are learning about
solid shapes. **cubes**
cuboids and **spheres**



Parents Notes

Go on a solid shape hunt
(or give them a name and
they have to find that
particular shape in their
toy box / bedroom)

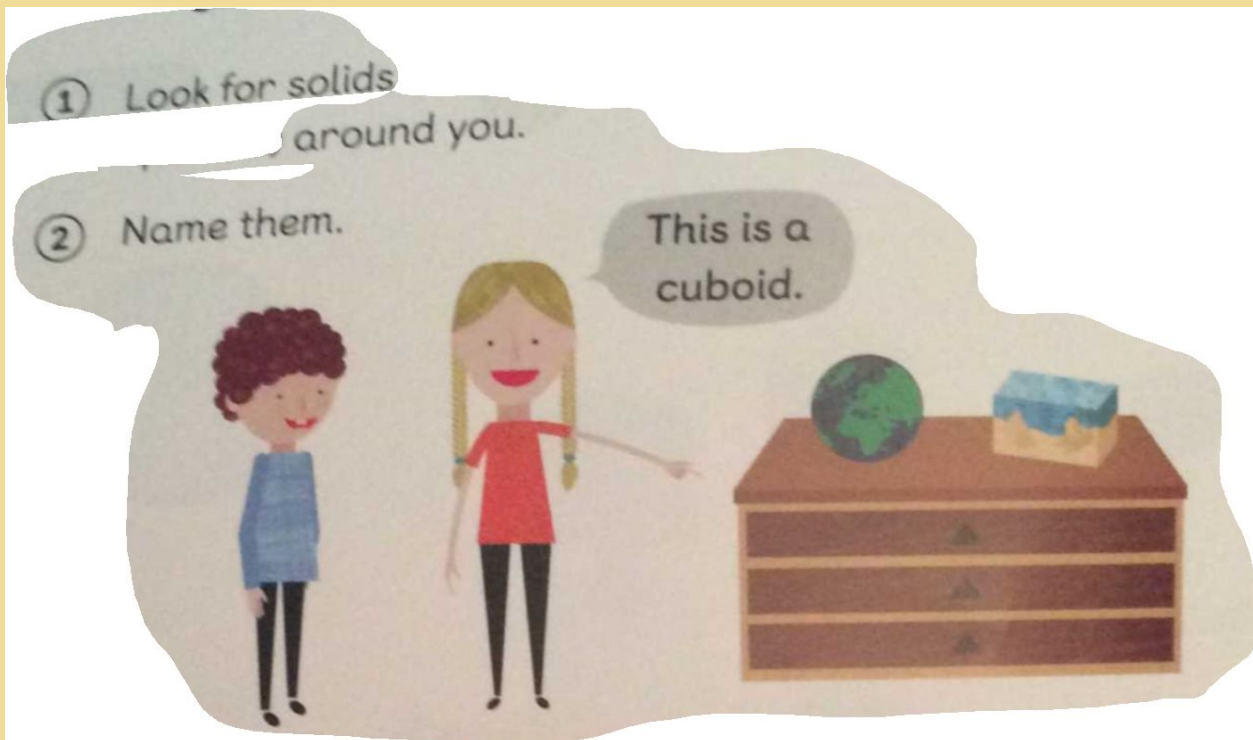
As they bring the shapes
name them.

① Look for solids

around you.

② Name them.

This is a
cuboid.





Parents Notes

Explain that we are looking at spheres, cuboids, and cubes, however there are other solid shapes too.

Identify the three first then can they have a go at matching the others too?

WOW! You stars!

Session 1 recognising solid shapes (1)

Match the solid shapes to the correct name in the list below.



•

• Pyramid



•

• Cone



•

• Sphere



•

• Cylinder



•

• Cube



•

• Cuboid

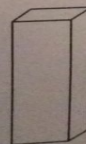
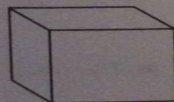
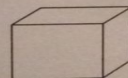
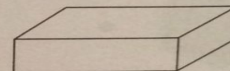
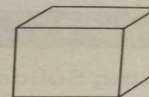
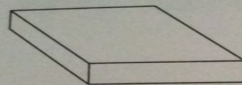


Parents Notes

If possible print this page for the children, unless you could draw them)

This activity helps your child to read for meaning, identify their phonic sounds and put them into real life context and it supports their fine motor control too, hence supporting their handwriting muscles.

- 2 Colour the spheres green.
Colour the cubes blue.
Colour the cuboids red.
Colour the pyramids yellow.



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Parents Notes

Hello! Today we move their learning from 3D shapes to 2D shapes.

What we are leading to is to understand that 3D shapes are made from 2D shapes being joined together.

2D shapes are the faces of 3D shapes.

Session 2

Recognising 2D shapes

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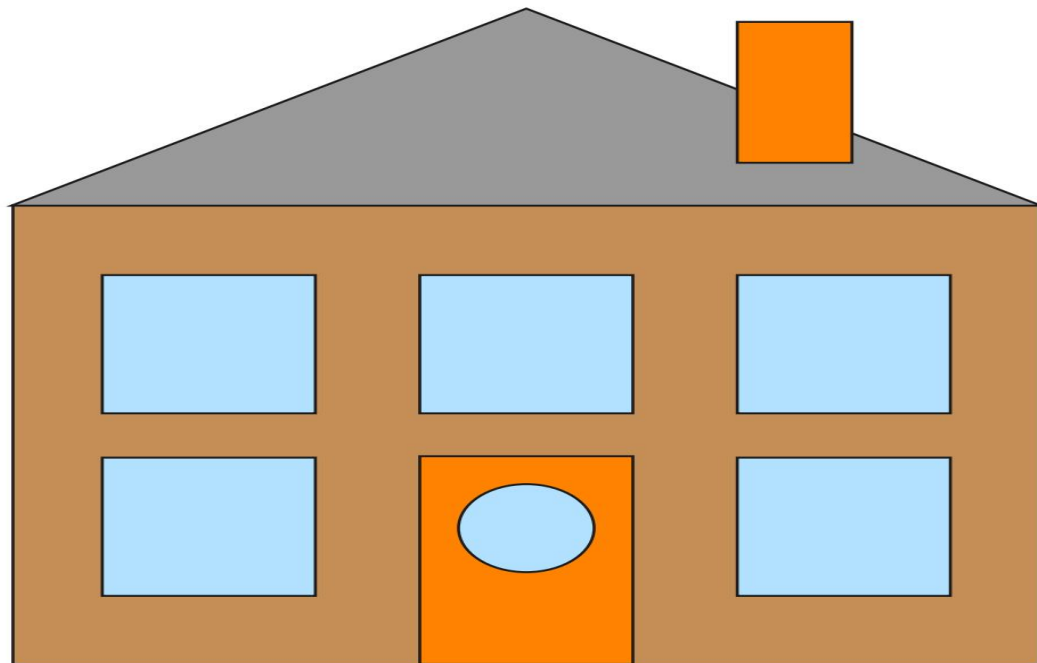
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Parents Notes

Ask

What shapes can you see?

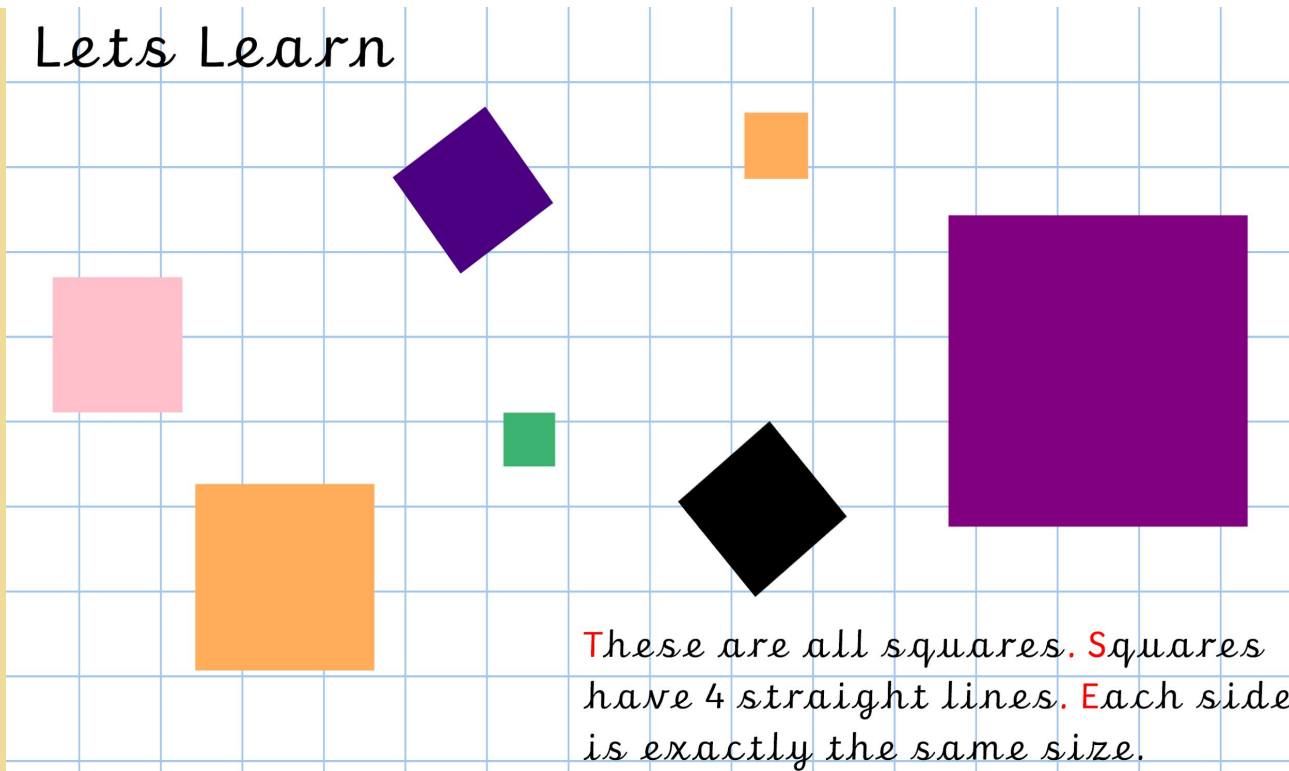
*Talk about different
shapes.*





Parents Notes

Lets Learn



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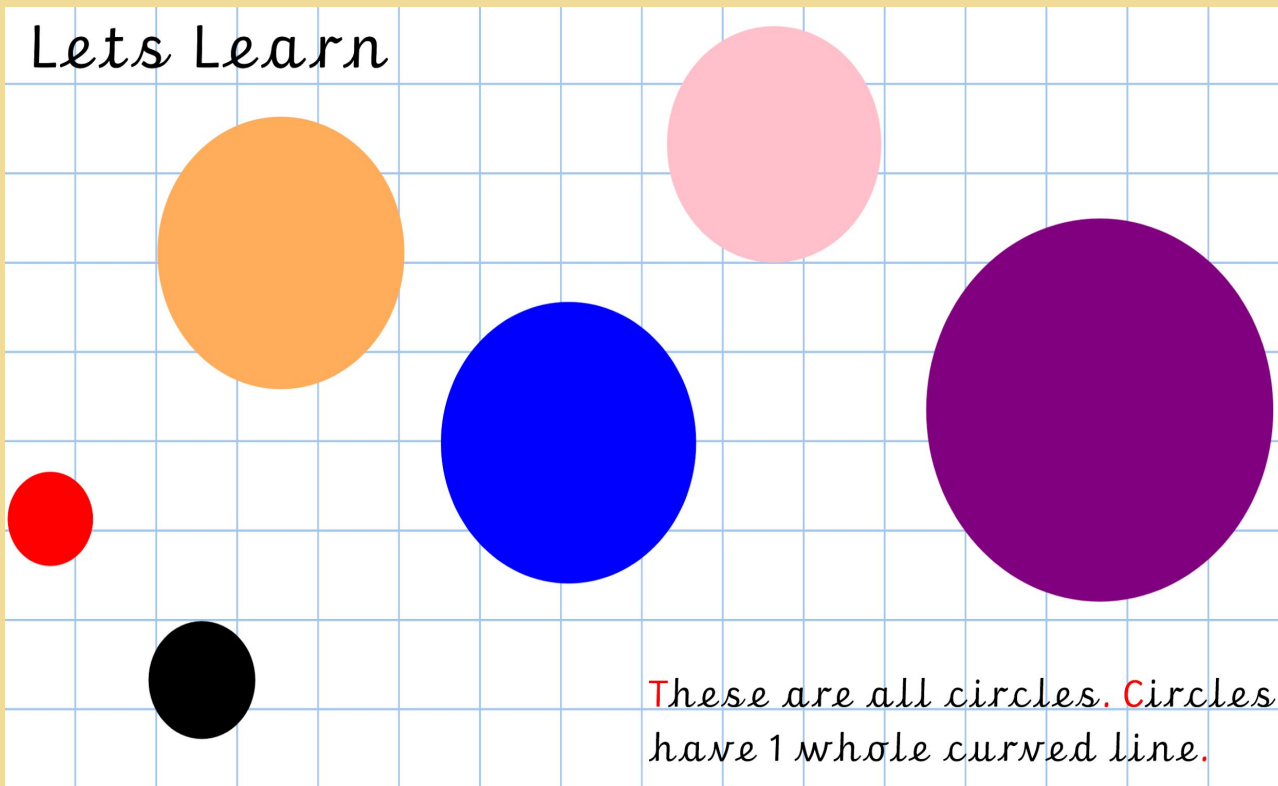
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Here the playdough pipe cleaners are great for the children to make explore the shapes.

Lets Learn



These are all circles. Circles have 1 whole curved line.

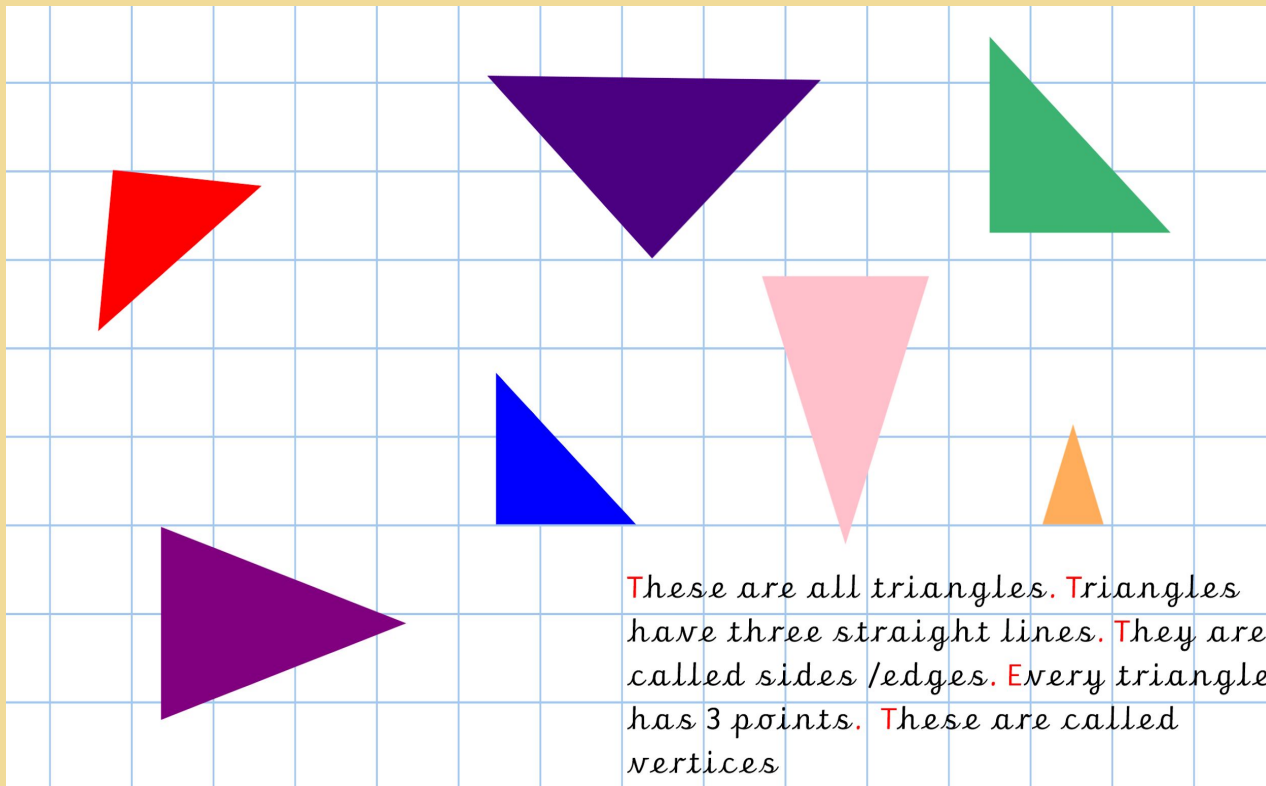
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These are all triangles. Triangles have three straight lines. They are called sides /edges. Every triangle has 3 points. These are called vertices

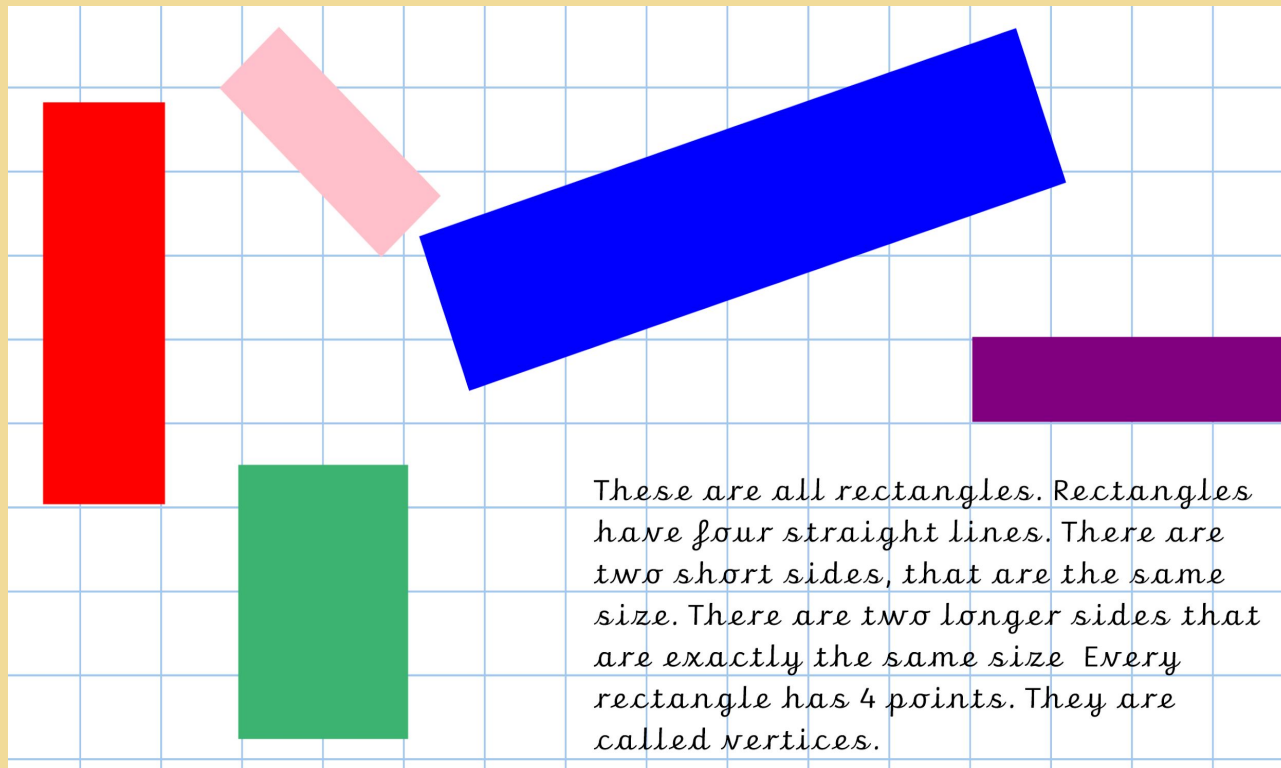
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These are all rectangles. Rectangles have four straight lines. There are two short sides, that are the same size. There are two longer sides that are exactly the same size. Every rectangle has 4 points. They are called vertices.



Find different objects around the garden, in your bedroom, the kitchen and say what shapes you can see.

Are you saying 2D or 3D names?

What you need:



① Take turns to pick up one object.
Name and trace one shape you see.

The Rubik's cube is a cube.

The Rubik's cube has squares.

Which object has more than one shape?

② Look for objects around you that have squares, rectangles, triangles or circles.

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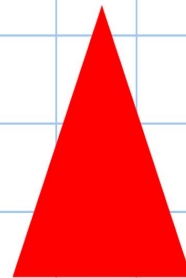
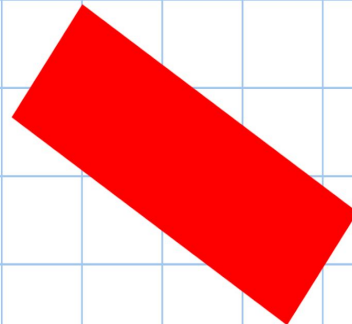
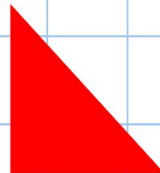
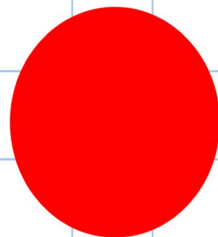
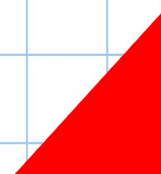
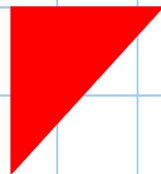
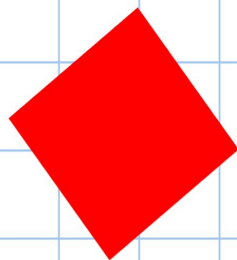


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Guided practise

find all the triangles



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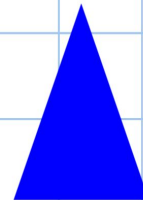
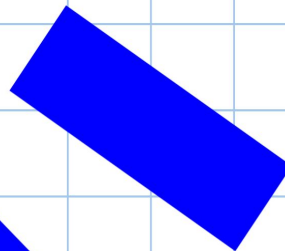
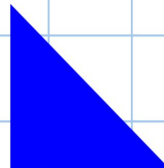
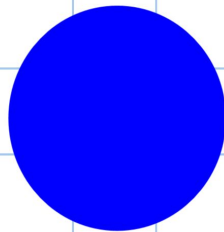
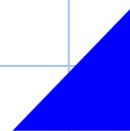
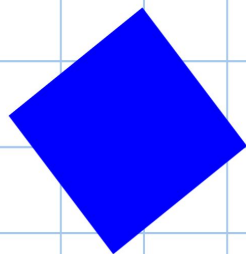


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Guided practise

find all the rectangles



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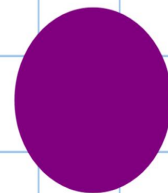
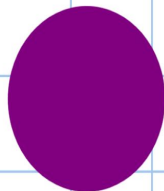
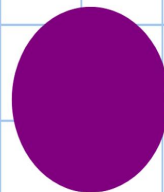
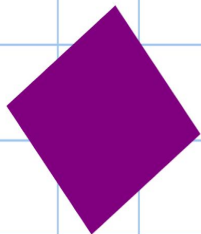


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Guided practise

find all the circles



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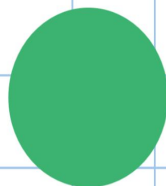
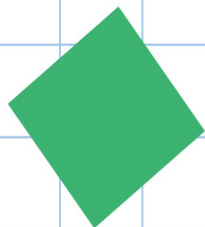


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Guided practise

find all the squares





For the next couple of slides

This is where the children show their understanding of 2D shapes now.

They copy the pattern and continue on their own, if they need help then discuss go back and reinforce the part they are not clear about.

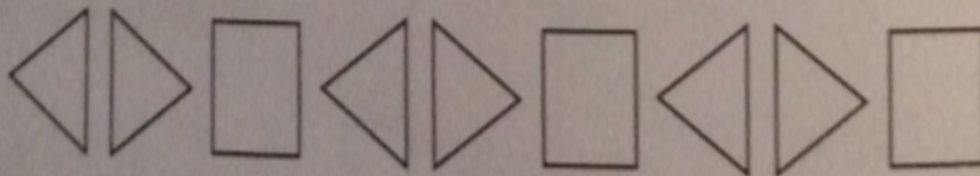
Together we are doing great!

Independent!

Complete the patterns.

Draw the shape that comes next in each pattern.

(a)





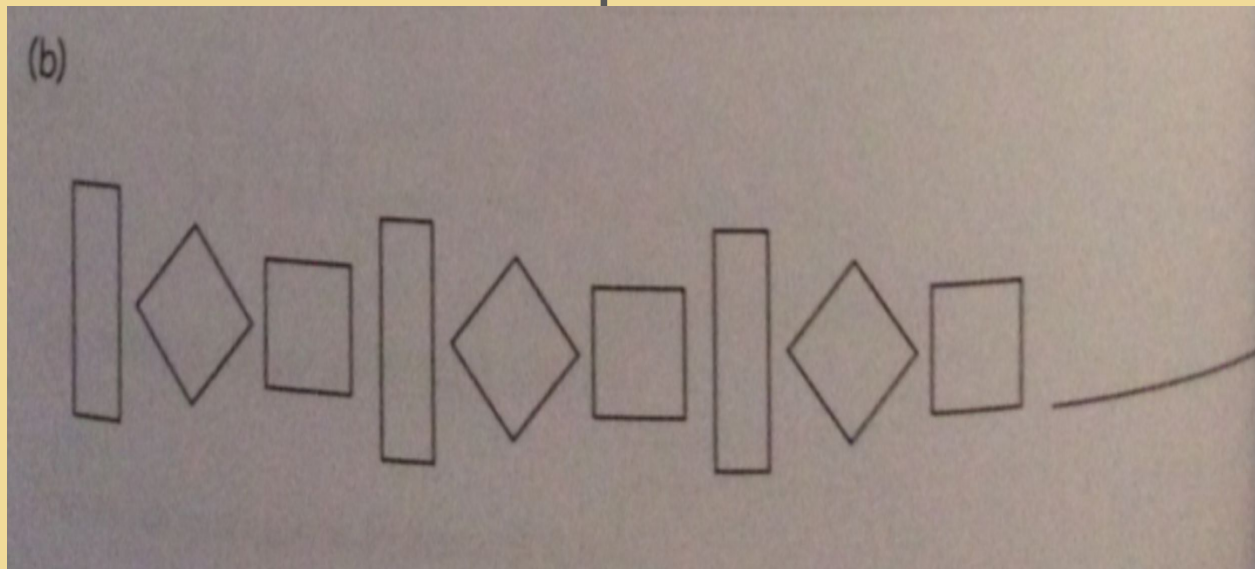
For the next couple of slides

This is where the children show their understanding of 2D shapes now.

They copy the pattern and continue on their own, if they need help then discuss go back and reinforce the part they are not clear about.

Together we are doing great!

Independent!





For the next couple of slides

This is where the children show their understanding of 2D shapes now.

Can they recreate this picture by drawing around the objects that they found? Then write and complete the sentences.
Together we are doing great!

Independent!

Write the missing

☐ - red ☐ - blue ☐ - green ☐ - yellow

There are ☐ rectangles.

There are ☐ squares.

There are ☐ circles.

There are ☐ triangles.

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Good morning

*Today we are learning how
to group shapes.*

*We will think about
colours, properties and
size.*

Hope you enjoy

Year One Team

Session 3

Finding different ways to group shapes

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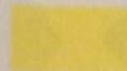
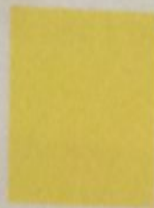
Ask

Can you name the four
different shapes we can
see?

What is your idea about
grouping them?

How would you group
them?

In Focus



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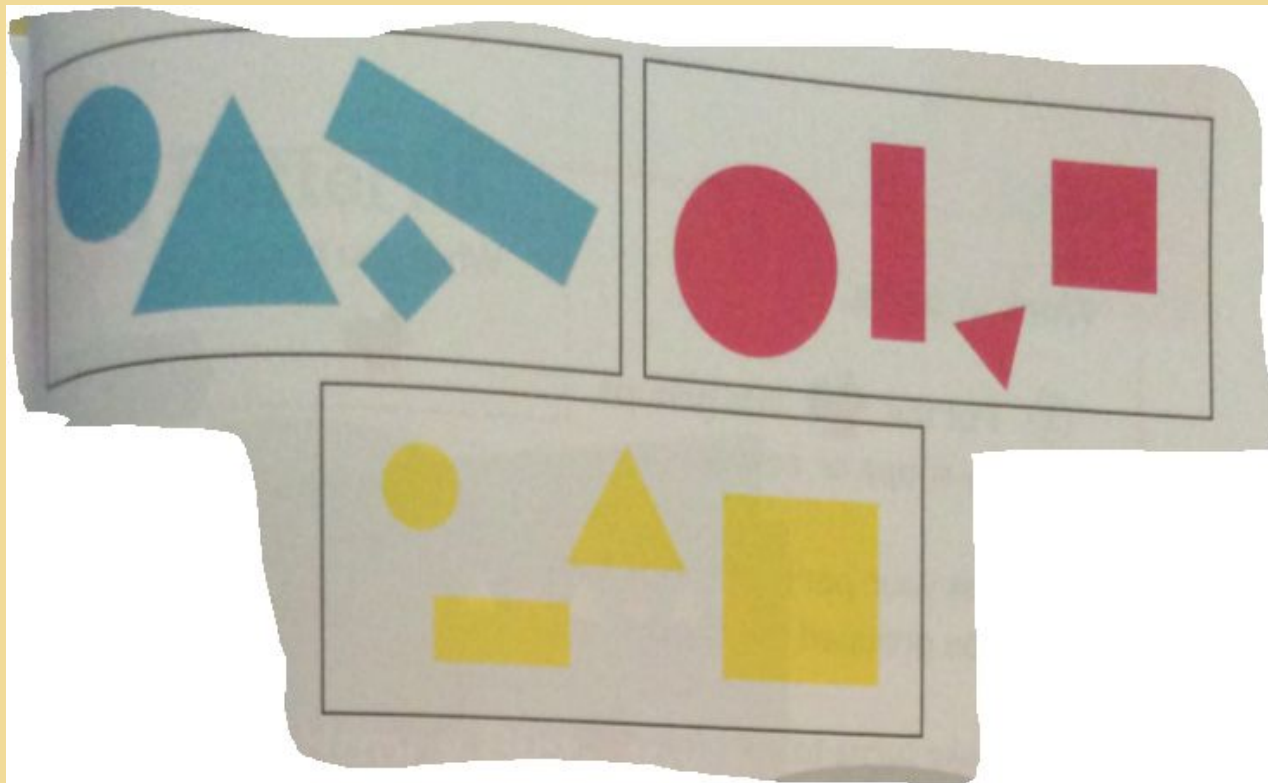


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Let's learn

*Explain that we can sort shapes by
their colour.*



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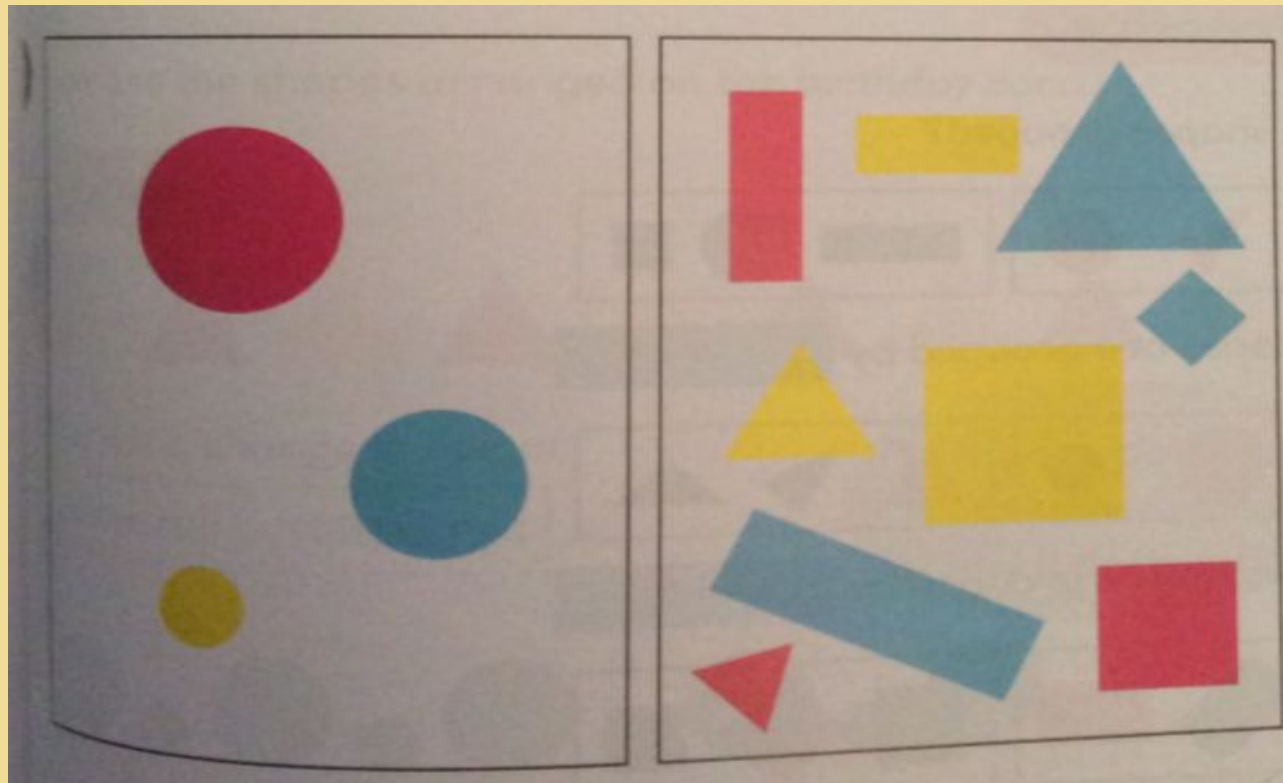


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Ask children to explain how these shapes have been grouped together.

We do this to encourage children discuss the properties of shapes.





Activity time


Ideally the children need to three different coloured either Play-Doh, pipe cleaners, lollipop sticks, gummed paper, shapes cut from paper before the activity begins.



Now give them different shapes in different colours and ask them to sort them then explain how they have done this.

Activity Time


Work in pairs.

What you need:



- ① Put the  into groups by shape or colour.
- ② Ask your partner to say how you grouped the shapes.
- ③ Take turns to sort the  into different groups.

The shapes are grouped by colour.





Children look at the pictures and then they use either the word shape or colour to explain how the shapes have been sorted.

Ask the children to write the sentence

The shapes have been grouped by....

Note: this is a dictated sentence so explain they write write it completely on their own (check can they remember all the words are they spelling words correctly?)

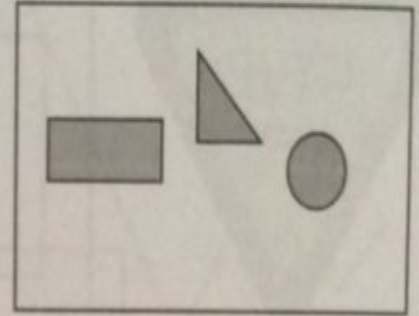
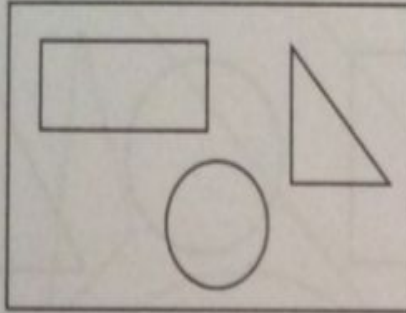
Don't forget capital letters
finger spaces and full stops.

Independent

1

Compare using shape or colour.

(a)





Children look at the pictures and then they use either the word shape or colour to explain how the shapes have been sorted.

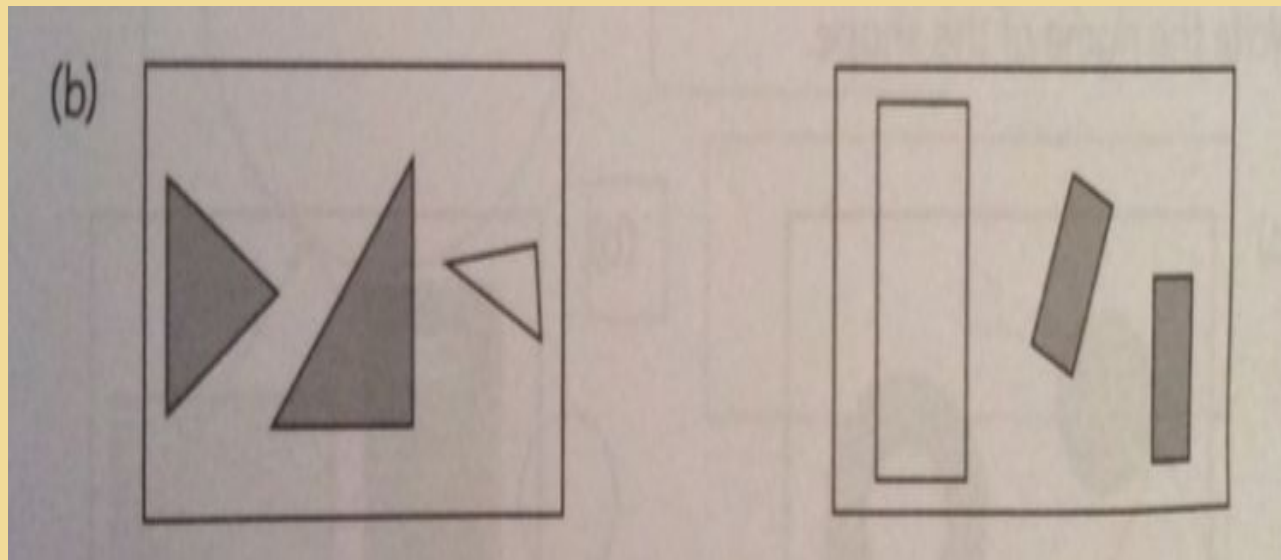
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Don't forget capital letters
finger spaces and full stops.

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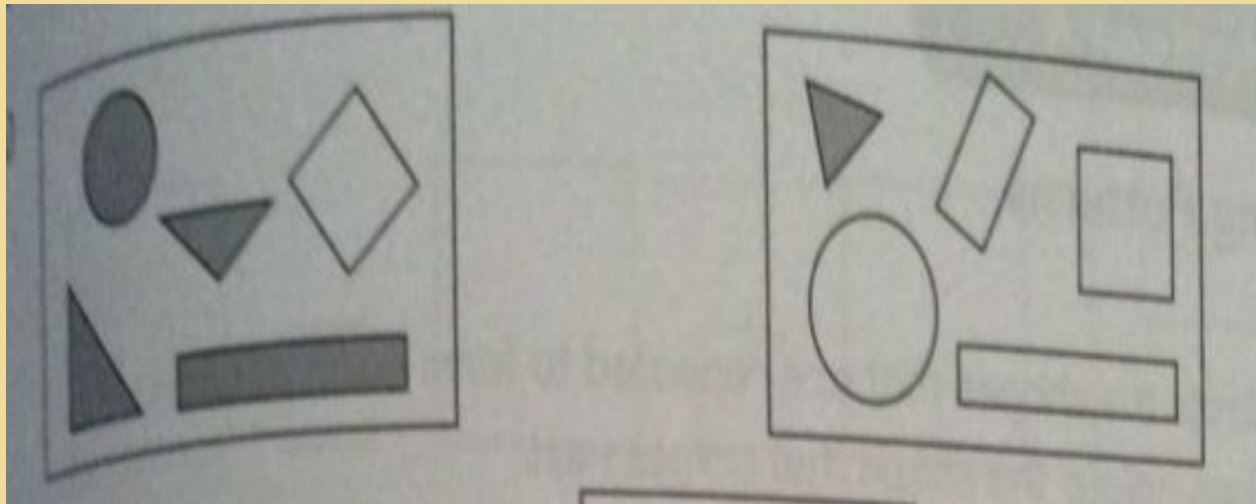
Ask the children to write the sentence

The shapes have been grouped by....

Note: this is a dictated sentence so explain they write it completely on their own (check can they remember all the words are they spelling words correctly?)

Don't forget capital letters finger spaces and full stops.

Independent





Children look at the pictures and then they use either the word shape or colour to explain how the shapes have been sorted.

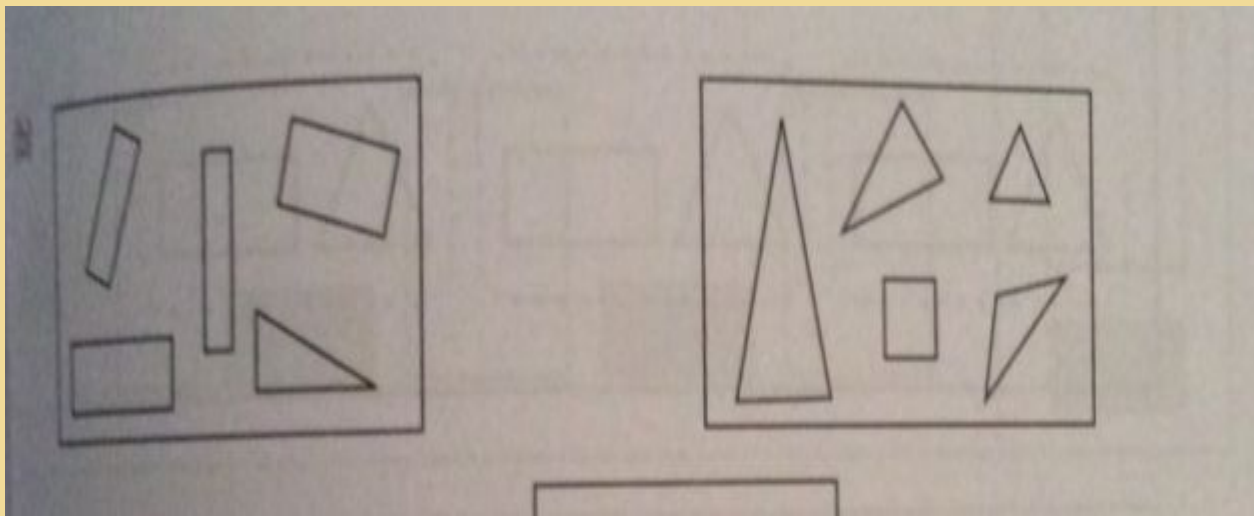
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The shapes have been grouped by....

Note: this is a dictated sentence so explain they write it completely on their own. Check can they remember all the words are they spelling words correctly?)

Don't forget capital letters finger spaces and full stops.

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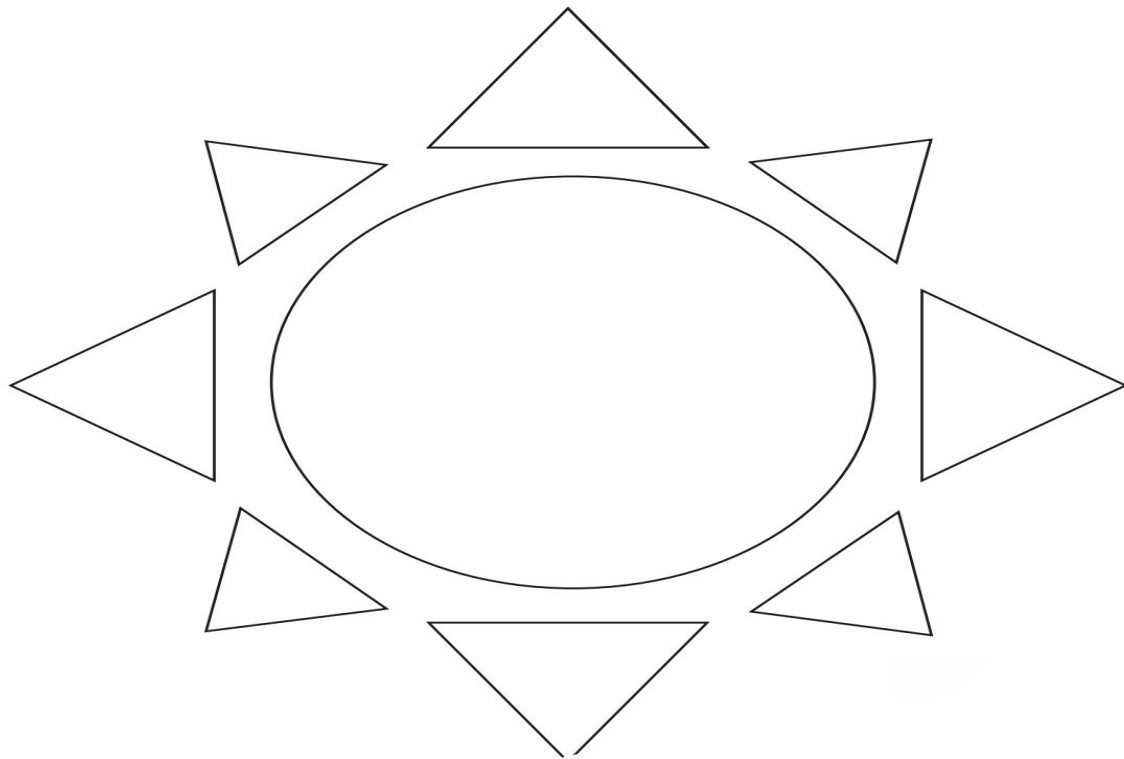
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A brilliant game to play here is if you have a wipe board and pen, great the children love these, no? No problem paper and pencils are good too.

You describe a picture (the one opposite) but don't let the children see what you are drawing- only describe draw a circle in the middle of the paper, now draw eight triangles around the outside of the circle.

Reveal all pictures. Are they the same?



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Good morning today we are going to be in making patterns using shapes.

The children will look at and explain the patterns. With support we will help them to explain how to identify the rules of making a pattern.

We are going to teach them that a pattern is a sequence of objects that are repeated

Session 4

Making Patterns

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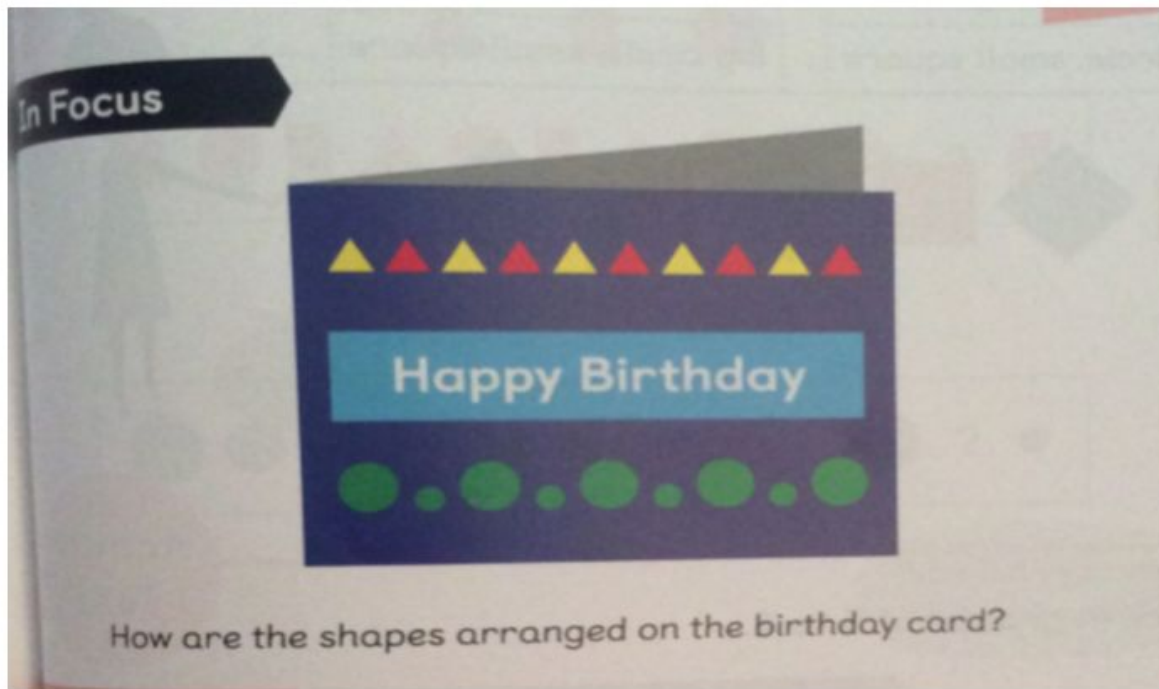
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Show the children the picture of the card and ask them how could I describe the pattern of the triangles and the pattern of the circles.

We are looking to see if the children can identify patterns and remember grouping in a variety of ways eg by shape, colour or size.

Explain they are grouped in colour/ size but do go back to yesterday's lesson and reinforce this understanding, if needed.



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Show the children the pattern and explain to them that there has been a change in colour each time a triangle has been placed there has been a yellow then a red yellow and a red the pattern.

Therefore the rule of this pattern is yellow triangle red triangle yellow triangle red.

The triangles have been grouped by shape but the rule is to change the colour each time.

It is a two colour pattern.

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Show the children the pattern and explain to them that there has been a change in size, this is the rule of this pattern. Each time a circle has been placed there has been a big one then a small one.

Therefore the pattern is big, small, big, small.

The circles have been grouped by shape but the rule is to use two different sizes and change them each time.

Discuss Together



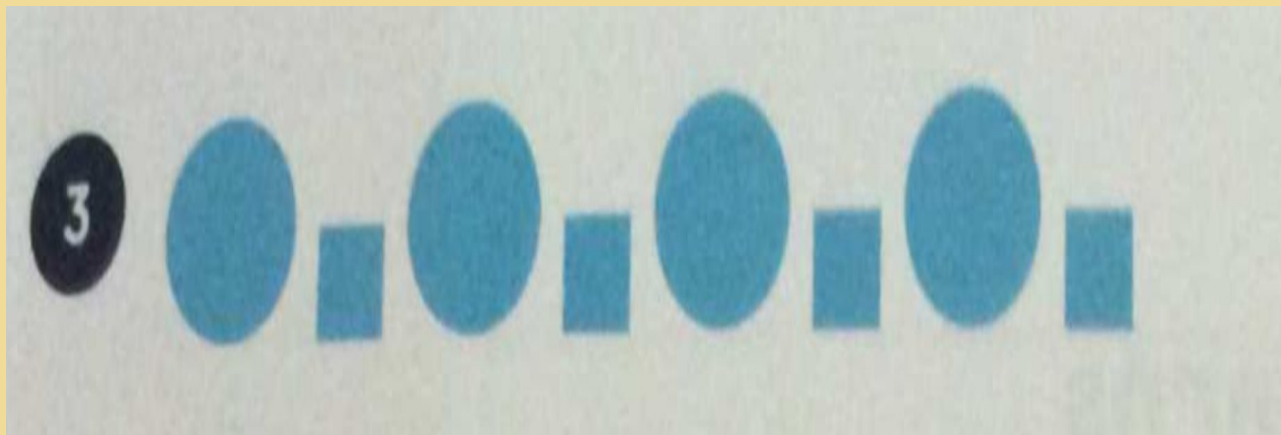


Show the children the pattern and explain to them that there has been a change in size and shape now. , Each time a shape has been placed there has been a different size and a different shape: big circle small square, big circle small square.

Therefore the pattern is big circle small square.

The shapes have been grouped by shape and size so the pattern is to change the size and the shape each time.

Discuss together





Show the children the pattern.

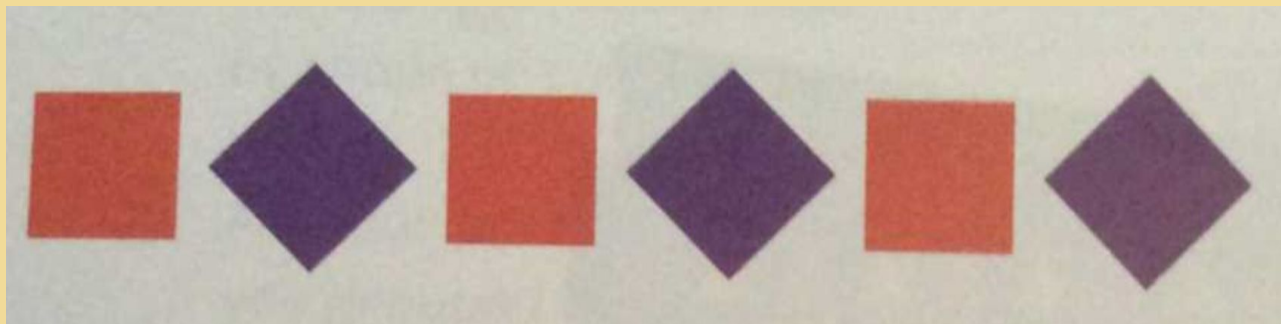
Explain to them that there has been a change in position and colour and we call this a rule.

The rule means that each time a shape has been placed it has been turned to a different position and a different colour.

Therefore the rule is orange, purple (turned), orange purple (turned).

The squares have been grouped by shape and colour so the rule is to change the position and the colour.

Discuss Together





If possible can the children have access to a computer if not that's not a problem get the children to draw their own pattern using either shape or colour.

We are looking for the children's understanding of pattern. Can they explain their pattern?

If the children have made a pattern on the computer upload it and put it on year one so we can see their patterns.

Work in groups of 3 to 4.

Do this activity on a computer.



- ① Use the shapes tool to draw the shapes above.
- ② Choose 2 shapes and make a pattern.
- ③ Print out your pattern.
- ④ Ask another group to describe your pattern and guess what comes next.



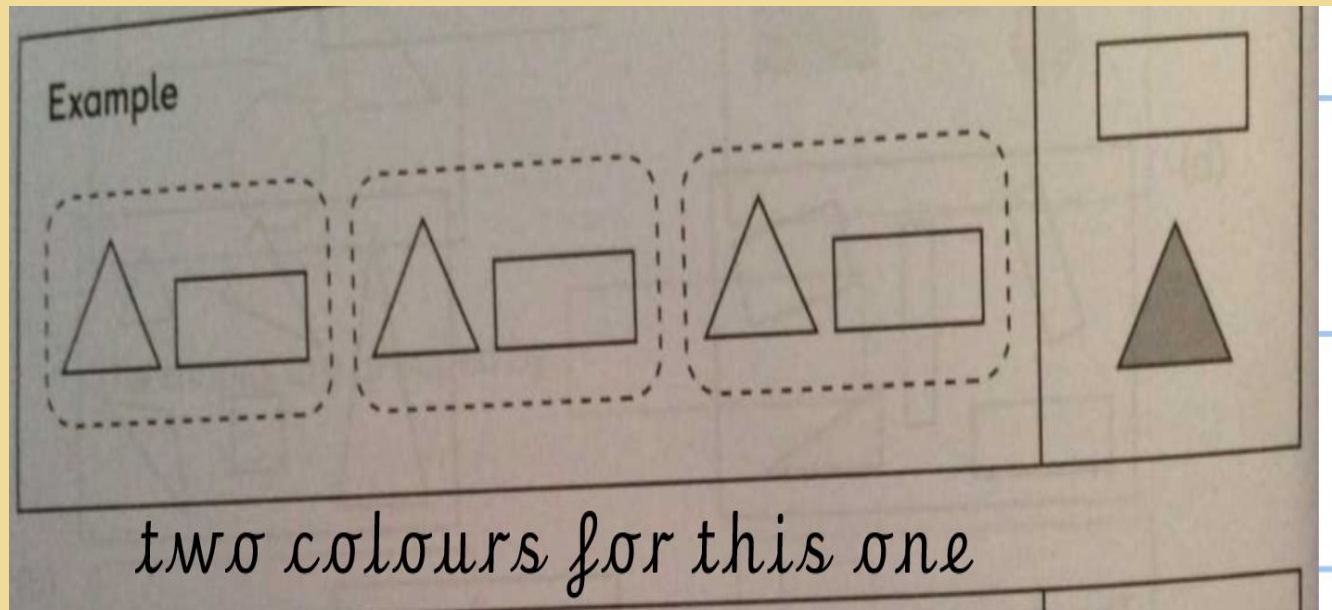
Copy these patterns into your books.

Then use colours to make a rule.

Explain your rule to someone. Eg I have grouped the shapes using points. 3 pointed 4 pointed and then use red and yellow colours.

Ask children to write down their rule too.

Independent





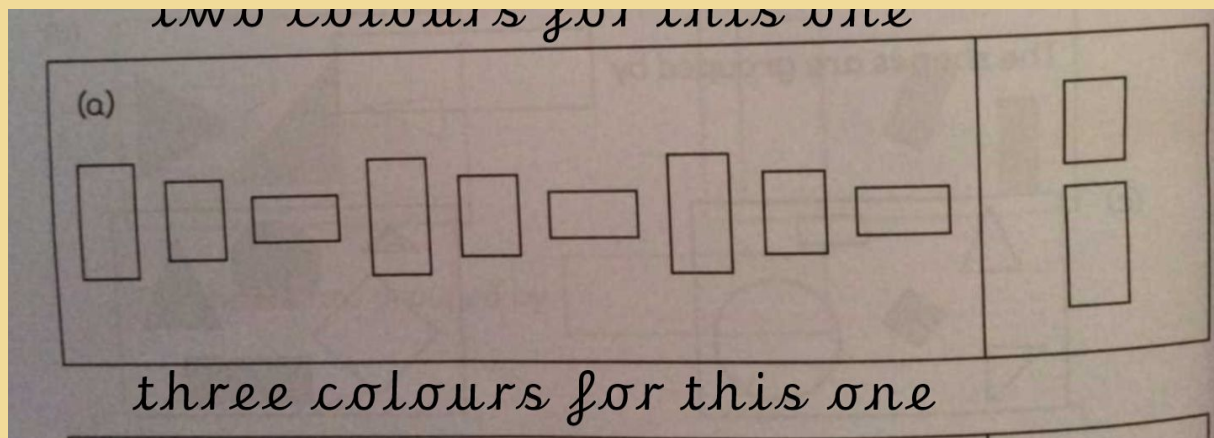
Copy these patterns into your books.

Then use colours to make a rule.

Explain your rule to someone. Eg I have grouped the shapes using rectangles now finish the rule

Ask children to write down their rule too.

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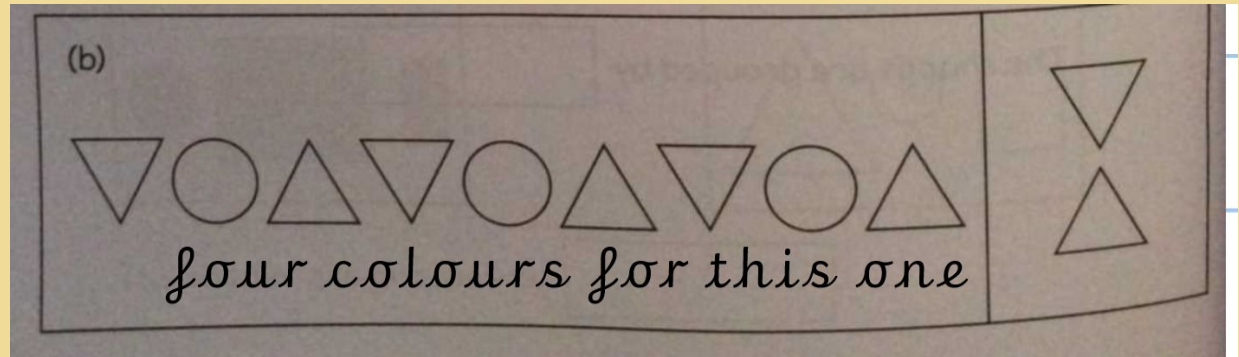
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Explain your rule to someone. Eg I have grouped the shapes using lines. 3 straight lines 1 curved line etc...

Ask children to write down their rule too. opy these patterns into your books.

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The beauty of these sessions are that now the children should understand shapes grouping and patterns and they can apply their knowledge in a different way.

What you want the children to do now is to actually work out the problem with very little help from you or me.

Good luck I know that they will do this!

Session 5

Mind work out

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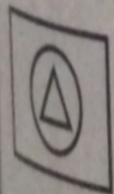
aspiration and enrichment

Ask the children to read it and explain to you what they need to do to complete the task.

Each day, Ravi draws a picture to form a pattern.

Draw the picture that Ravi draws on Friday.

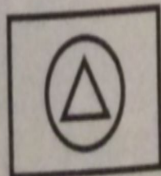
What is the rule that Ravi uses to make the pattern?



Monday



Tuesday



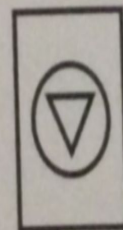
Wednesday



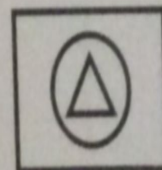
Thursday

?

Friday



Saturday



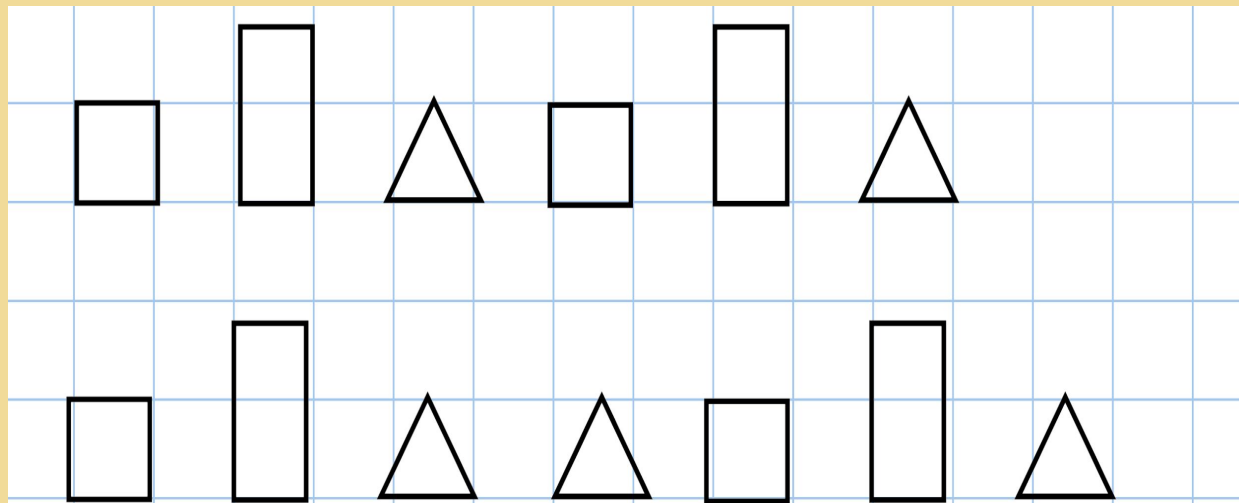
Sunday



Activities like these help the children with both their reading and their reasoning in maths.

These are the best maths days generally because the children are secure in their knowledge and they love to show it off! They thrive on the recognition and understanding that they have got it correct!

These are the best to teach and I hope that you found this too.



Take makes a pattern with 3 shapes



He makes a mistake in the pattern above. Colour the shape he needs to remove. Draw the correct pattern.

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