

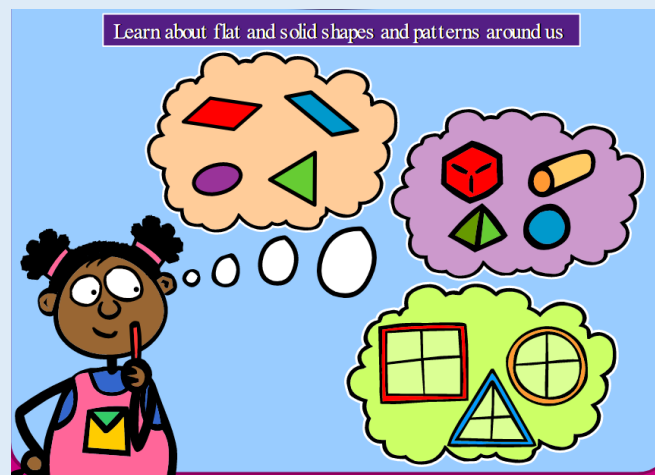
Maths - 3D Shape

This week we will be learning about 3D shapes. 3D shapes are solid shapes, not flat (2D).

Your child will know the names of common 2D shapes (circle, triangle, square, rectangle, pentagon and hexagon) and has had experience of naming, describing, sorting and making pictures and patterns with them.







We will be using these skills when learning about common 3D shapes.

Have a look at the Discovery Espresso page to recap 2D and 3D shapes. There are some fun videos to watch and activities to do too!



All children learn in different ways so please choose and adapt the activities you think will match your child from the ideas on the next few pages. Have fun!

The 3D shapes the children need to know can be found below. The children will be learning how to name, describe (the properties of the shape), sort and make models using the shapes.

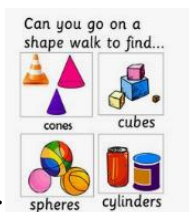
<p>Cone</p>  <p>2 Faces 1 Edge 1 Vertex</p>	<p>Sphere</p>  <p>1 Face 1 Edge 0 Vertices</p>	<p>Cylinder</p>  <p>3 Faces 2 Edges 0 Vertices</p>
<p>Cube</p>  <p>6 Faces 12 Edges 8 Vertices</p>	<p>Cuboid</p>  <p>6 Faces 12 Edges 8 Vertices</p>	<p>Square-based pyramid</p>  <p>5 Faces 8 Edges 5 Vertices</p>

- Vertices = points/ corners of the shape

Throughout the 3D shape activities please try and use the correct vocabulary with your child so they are confident at using it correctly too.

Activity 1 - 3D shape hunt

- Can you go on a 3D shape hunt around your house or the local area? Look carefully to find lots of different 3D shapes and talk about why they are 3D.



- Can you arrange them into a repeating pattern? For example:
Cylinder, sphere, cylinder, sphere, cylinder, sphere....



- How do you know the pattern is repeating? What properties of the shape is being repeated? For example, rolls, does not roll, rolls, does not roll, rolls, does not roll.

Activity 2 - 3D shape models

- Can you make a model using 3D objects? You could use junk materials, Lego or wooden shapes! Why not take a photograph and label all of the 3D shapes you have made?



- Can you use playdoh to make some 3D shapes? You can use spaghetti/lolly sticks/straws to make the edges as an extra challenge!



Activity 3 - Kim's Game

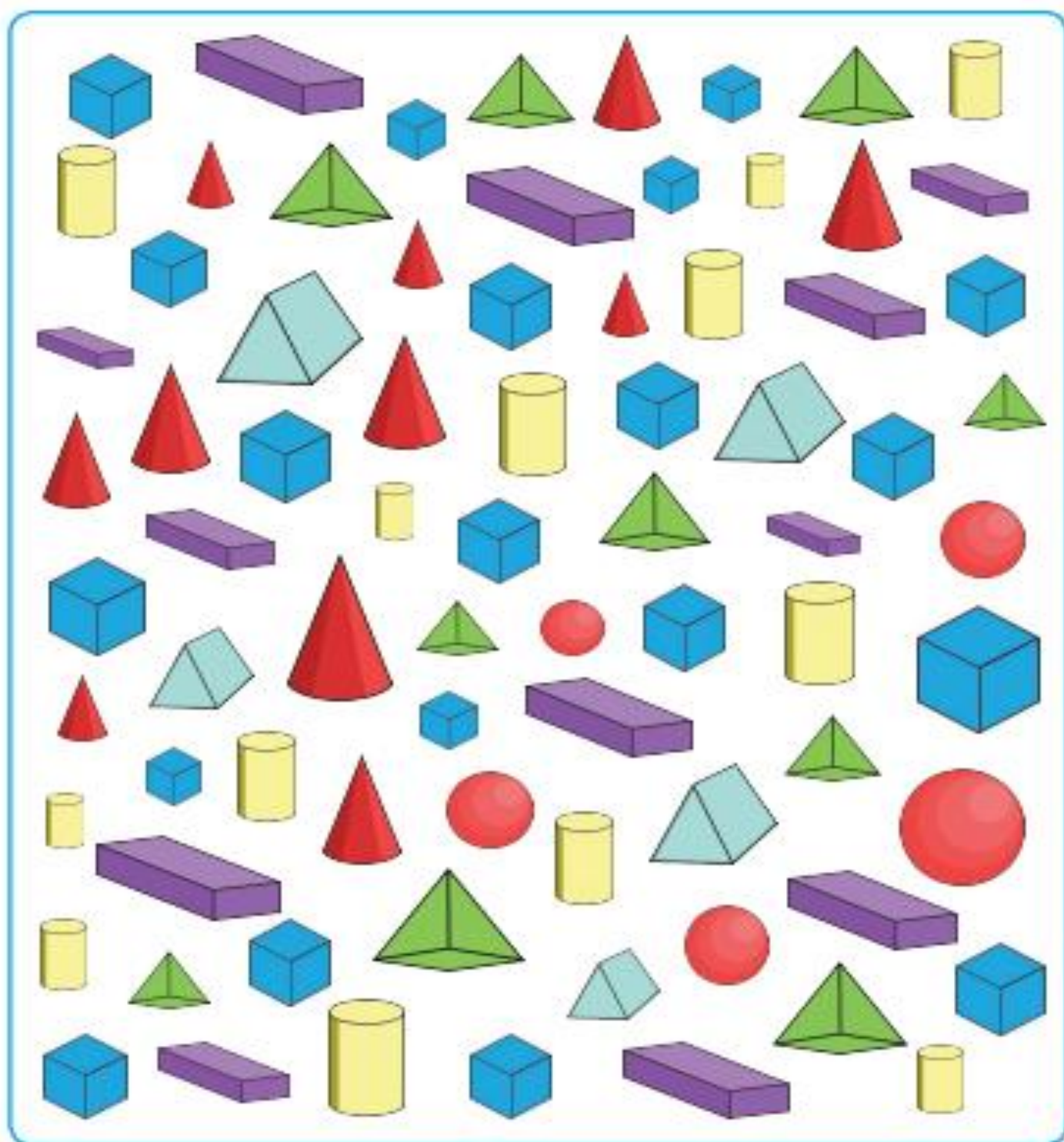
- Place a selection of 3D shapes on the floor. Ask your child to look carefully at them all and talk about them together. "This cube has 6 square faces" "The cone has 1 point/corner (vertex)" "Which shape looks like a ball?" etc...
- Cover the shapes with a piece of material and then remove one shape so your child can not see it.
- Ask your child to remove the material and try and guess which shape you are hiding.
- If they are finding it tricky to guess, then give some clues. For example, "It is the same shape as a tube of Smarties"

Activity 4 - Feely bag

- Place a 3D shape in a special bag and take it in turns to describe the shape.
- You can win a point if you guess the shape correctly.

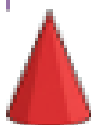


Activity 5 - I spy



How many 3D shapes can you find?

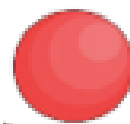






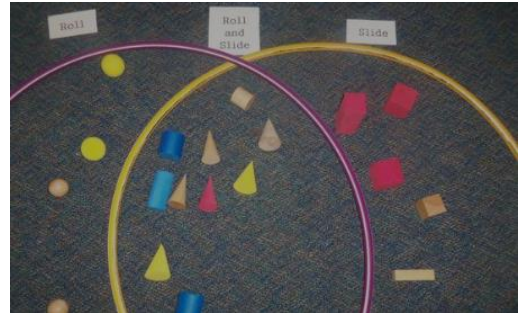
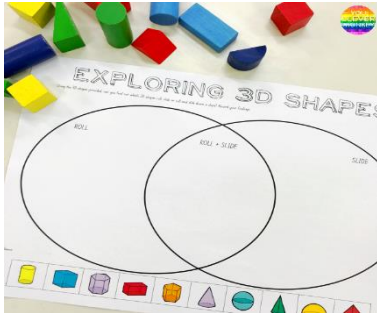






Activity 6 - Sorting 3D shapes

- Can you sort the 3D shapes? You can use the shapes collected from your house, photographs of the 3D shapes you spotted on the shape hunt or any modelling shapes you may have.
- Encourage your child to choose their own criteria when they sort the shapes. You can draw circles to sort them into (or use hoops) to make it clear where the different groups are.



Extras!

- A fun 3D shape song <https://www.youtube.com/watch?v=2cg-Uc556-Q>
- Which 3D shape can you use to make the tallest tower? Are cubes better than spheres? Why? How many cones can you make into a tower?
- Recap on repeating patterns. Play this train shape game <https://www.topmarks.co.uk/ordering-and-sequencing/shape-patterns>
- A selection of 3D shape pictures to colour can be found in the home learning folder.
- A 3D shape Powerpoint is also available in the home learning folder.

Extra 3D shapes to use for any of the activities.

