



Exploring 2D Shapes

Describing and comparing 2D shapes
Understanding the characteristics of 2D shapes



Children enjoy playing with long strings and ribbons, and making and describing shapes.

Adults could build on this by providing long loops of string or elastic to stimulate conversations about 2D shapes.

The Activity

Provide loops made from string or elastic at least 3m long. For the task these can be put on the ground or held in the air by children working in groups of three or four. Ask the children to make shapes with their loops and talk about what they see.

Encouraging mathematical thinking and reasoning:

Describing

Tell me about what you have made.

What can you see?

Have you seen a shape like this before? Where? What does it remind you of?

How is it the same as ... different from ...?

Tell me about the corners and sides of your shape.

Put your shape near, inside, outside, under ... another one. What do you notice?

Recording

Trace your shape with chalk on the playground or with felt tip pens on a big sheet of paper.
Make a small drawing of your shape on paper.

Reasoning

What could you change to make it different?

What if you had another one the same?

Opening out

I wonder how you could change your shape?

What would you like to do next?

How about working with some more string?

Can you fit inside the shape?

Can you fit more/fewer children in the shape when you change it?

The Mathematical Journey

Same and different:

- developing the use of language to compare, contrast and describe. e.g. straight, wiggly, curved, roundy, pointy, bigger, smaller, longer, shorter, corner, like, different, side, curve . . .

Properties of shapes:

- making connections with shapes in their own environment and beginning to use names such as triangle, rectangle, square, oblong, corner, side . . .
- counting the sides and corners of the shapes they make

Position and spatial properties:

- using words such as on, inside, outside, under, left, right, above, below etc. to describe position

Development and Variation

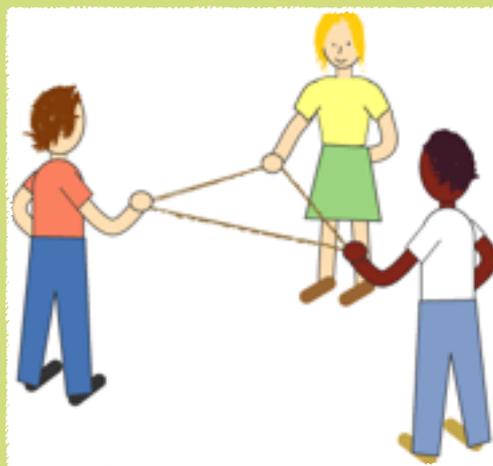
This is presented here as a teacher-led activity. It might also be possible to model the activity and then let children play freely with the string or elastic but they would need careful supervision.

Other activities that complement this:

- Drawing
- Shape searches in a series of photos or in books and drawings
- 'I spy shapes' games
- Using educational games that involve shape sorting or matching
- Building pictures from precut shapes or cutting shapes from coloured paper or magazines
- Painting on the ground or wall with big wallpaper brushes and water
- Using natural materials to make shapes: leaves, twigs, daisy chains; printing with potato or sponge shapes
- Drawing shapes in the sand tray, with paints, through cornflour gloop, with a finger
- Riding wheeled toys through puddles and looking at the tracks.

Story, rhyme and song links

My Mum and Dad Make Me Laugh by Nick Sherratt
Washing Line by Jez Alborough
Aliens Love Underpants by Claire Freedman
Kipper's Book of Opposites by Nick Butterworth
Opposites by Eric Carle
Opposites by Robert Crowther



Resources

String or elastic at least 3m long

