

Paths

Talking about positions and shape properties



Children often enjoy putting objects in lines wiggling all over the place.

Adults could build on this by providing an environment that will give good opportunities for language work and discoveries.

The Activity

Gather together a selection of different shapes, colours and sizes of flat shapes, with sufficient room to create paths in and around the surroundings. This could be inside or outside using man-made or natural shapes. The children are asked to 'make paths!'.

Encouraging mathematical thinking and reasoning:

Describing

Tell me about your paths.

Let's look at what everyone has made.

I wonder where this path is going.

I wonder who/what could be going along your path. How do you know what to put next?

Who used more shapes, you or ... ?

Reasoning

Why did you put ... next to the ... ?

Is there a pattern to your path? What could you put after the ... ?

Can you make your paths go (under the ... , round the ... , by the ...)?

Opening Out

How many teddies/lorries can use your path?

Can you put more lorries on your path?

Recording

Would you like to show your path on paper?

The Mathematical Journey

Comparing and describing:

- using everyday language to describe geometric ideas
- using mathematical language to describe shape, moving from informal such as wiggly, to more specific such as straight, curved

Number:

- counting and knowing that the last number in the path tells the total

Adding and subtracting:

- increasing or decreasing the number of shapes in the path

Properties of shapes:

- selecting shapes to add to the path by analysing their properties
- using shapes to solve problems about the route of the path

Development and Variation

- Collecting all kinds of objects both natural and man-made and stacking them up into towers
- Fitting different objects into big boxes or drawers
- Choosing things to build with outside



Resources

Small flat shapes that could be used as stepping stones or put together to make a continuous path
Outside look for larger flat shapes that are able to be carried safely, both man-made and natural

Photo acknowledgements:
<http://progressiveearlychildhoodeducation.blogspot.co.uk>



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