

# 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>



[nrich.maths.org/early-years](http://nrich.maths.org/early-years)

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