



Paths

NRICH

Talking about objects using everyday language



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

Adults could build on this by providing an environment that will give opportunities for good 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 manmade 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 who/what could be going along your path How do you know what to put next?

Who used more shapes, you or . . . ?

Recording

Would you like to show your path on paper?

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 lorries can use your path?

Can you get more lorries on your path?

Resources needed

Every kind of flatish shape that is available and able to be carried safely.

Natural materials that are be handled easily by the children.

The Mathematical Journey

Comparing and describing:

- using everyday language about geometric ideas
- using mathematical language about 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
- addition and subtraction by increasing or decreasing number of shapes in the path

Shape and space

- exploring the properties of shapes
- using shapes to solve problems about the route of the path

And more ways into the same mathematics and other resources that may be used.

- 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

All of these activities give opportunities for good conversations between the pupils and with practitioners