



Queueing

NRICH

Talking about things in order



Children enjoy arranging objects in lines, straight or curved.

Adults could build on this by making a traffic jam on a road play mat in order to enable the activity described below.

The Activity

Make a road block of your choice e.g. roadworks on a road layout play mat. With the children make and talk about the single file traffic jams it has caused. Focus on positions and order..

Encouraging Mathematical thinking and reasoning.

Describing

Which car is first in the queue? Which is second..?

Which do you think is the smallest car in the queue? Which is the biggest/tallest?

Recording

Why don't you take a photo of your queue, you'll be able to talk about it at home.

Reasoning

Is the first in the queue always at the front?

Is the last in the queue always at the back.?

Is there a pattern to your queue? Why did you put this first?

Why did you put this next? Who's last? and the police car? Why?

Opening out

Can you put this lorry behind the yellow bus/in front of the tractor/between the pink van ?

Can you make a queue with all the . . . at the front and the . . . at the back.

What if we had more?

What if something was different?

What if you had another one the same?

Can you put them in some other order?

Resources

All the different vehicles you can lay your hands on.

This may include junk modeling vehicles that they have made,

The Mathematical Journey

Comparing and describing:

- using mathematical language about length and number, such as bigger, smaller, the same and moving to more appropriate language such as longer, shorter, more people, less/fewer, equal
- using mathematical language about shape, moving from informal such as wiggly, to more specific such as straight, curved

Number:

- counting and cardinality – using number names, one to one correspondence, knowing that the number in the queue is the last count
- conservation of number through spacing out objects in the queue and number remaining the same
- addition and subtraction by increasing or decreasing number of objects in the queue
- part-whole numbers, noticing number within numbers, division by splitting queues into two or more

Ordering:

- using positional language to describe place of objects such as in front of, behind, between
- using ordinal language progressing from first and last to other numbers
- describing the order progressing to using a rule to create patterns within a queue such as alternate

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

Large soft toys;

Small world people and animals

'Sorting' resources; animals, mini-beasts, vehicles etc

Picture cards

Beads or assorted hollow pasta shapes to thread

Assorted wooden building blocks which can become any imaginary creatures/vehicles/houses

Items to peg on on a washing line

Encourage child-initiated queues through providing materials, inside and outside, for:

- a role play shop
- a play bus made from a line of chairs
- an 'ice cream van' – (children to make their own pretend ice creams)
- a card tunnel in a small world sand tray with cars
- a bridge over a narrow water play 'canal' with boats
- a water tray 'swimming pool' complete with diving board and small world people
- a narrow gap of cones to ride through on outdoor wheeled toys
- a play tunnel to crawl through

using sticks, cones, leaves, flowers outside: floating ('Pooh stick' style) along a length of guttering, split bamboo or a safe stream.