

Balances

Counting up to 10 objects and beginning to count beyond 10

Comparing weights using non-standard measures



Children often enjoy putting objects into different containers such as buckets, bowls, trays and baskets.

Adults could provide an assortment of balances which might have tubs, buckets, pans ... You can even use coat hangers.

The Activity

Place the balances near to areas where children might find items to put into the pans/buckets etc. Many individual items may be suitable, such as cars, cotton reels, counters, shapes, stones, acorns, buttons, fruit ... The list is endless and the children will try objects that would not necessarily occur to you! Simply given them time to explore and experiment.

Encouraging mathematical thinking and reasoning:

Describing

Tell me about what we have here (in one side of the balance) and here (the other side).
What happened when you put that in/on?

Reasoning

Why did that happen?
What happens if it goes here (the other side) instead? Why?

Opening Out

What do you think will happen when you put that there? Why? Try it!
How is that one different to yours?

Recording

Would you like to remember what is here by getting a friend to photo/video you, or by drawing a picture?

The Mathematical Journey

Number

- counting and cardinality - progressing from knowing some number words, to saying one number for each object, then knowing the number of the whole group
- counting an irregular arrangement of objects
- finding the total number of items in two groups by counting all of them
- relative number size - comparing numbers
- part-whole numbers – noticing numbers within numbers
- selecting the correct numeral to represent 1 to 5, then 1 to 10 objects
- beginning to use the vocabulary involved in adding and subtracting

Same and different:

- developing language to compare and contrast e.g. more, fewer, heavier, lighter ...
- ordering according to a rule e.g. heaviest to lightest, tallest to shortest ...

Size and measures:

- comparing weights using non-standard measures

Development and Variation

You could set up a role play area which might encourage children to explore the idea of weight a bit further. For example, how about an airport check-in desk where luggage is weighed, or a post office, or a shop selling fruit/vegetables?

The NRICH Early Years activities Presents and Parcels also give opportunities for similar areas of mathematics to be experienced. Golden Beans and Baskets may also be useful for offering further ideas in which to explore comparing and contrasting in the context of number.

Resources



As many different examples of balances as you can gather - see the pictures above

A variety of objects that can easily be placed in/on the balances.

A camera may also be useful.

Photo acknowledgements from left to right: learningandteachingwithpreschoolers.blogspot.co.uk, librarymakers.blogspot.co.uk, wormseye-view.blogspot.co.uk, tts-group.co.uk, www.evans-crittens.com



nrich.maths.org/early-years
© University of Cambridge