NRICH

## Teachers: Early Years

## Number Book

Counting reliably with numbers from 1 to 20
Sorting and describing


Children often enjoy collecting objects and counting them, and many love having a sticker book.
Adults could suggest creating a 'number book' when they see a child picking up one or two related objects.

## The Activity

Children are asked to collect four (or whatever number is appropriate) of a range of objects both indoors and outdoors, for example, they may choose four leaves, four stones, four play figures ... They are invited to create their own book, 'My Book of 4', by sticking the objects into a plain-paged book, where appropriate, or by sticking in photos of the objects.

## Encouraging mathematical thinking and reasoning:

## Describing

Tell me what you are looking for.
Tell me about these things you've collected. Tell me about your book.

## Reasoning

Do you need any more? How do you know?
Have you got enough? How do you know?
Have you got too many? How do you know?

## Opening Out

Provide further opportunities for children to do similar activities in different environments, on forest visits, in the playground, in the school garden, in the PE store ...

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Recording Same and different:
Will you keep that/them for your book?
How shall we put them in your book?
Could we draw/take a picture of these things for your book?
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## The Mathematical Journey

## Counting skills:

- saying one number for each object
- remembering the pattern of the number sequence
- understanding cardinality i.e. that the last number gives the total


## Same and different:

- grouping e.g. these are all leaves, these are all square-shaped buttons


## Development and Variation

You could encourage children to group together to count their objects in total and perhaps to create a new book as a result.
You could suggest that the whole group/class creates a counting book of numbers in order from 1. Pairs of children could be given a particular number and asked to find that number of objects of their choice. You could then assemble the book as a whole group/class. It would be lovely for the book to follow the group up the school, where possible. The following NRICH Early Years activities might offer similar mathematics: Tidying, Incey Wincey Spider, Dice and Washing Line.


## Resources

Simple plain-paged scrap books
Glue/paste
A variety of collections of objects in your setting, some of which may be present all the time, some of which may be introduced for shorter periods
An outdoor space
A camera will be useful to take photographs of the items that can't be stuck into the books

Photo acknowledgement:
http://www.mommywithselectivememory.com/p/all-activities-for-kids.html

nrich.maths.org/early-years

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