



Using Books

Using everyday language to talk about sharing

Counting reliably

Solving problems



Children often enjoy sharing a book with an adult and talking about it.

Adults could provide suitable books to read with children, and ask questions to provoke their mathematical thinking. Here we focus on 'The Doorbell Rang' by Pat Hutchins.

The Activity

Place a number of books which you feel might have mathematical potential in the story/reading play area. You could leave them there for children to browse of their own accord, then at a later date, select one to read with a small group. Here we have chosen 'The Doorbell Rang' as an example for sharing and talking about with children, but there are suggestions for further book ideas below too.

Encouraging mathematical thinking and reasoning:

Describing

Tell me about this picture. (This could refer to any of the pictures in which the children are raising their hands to take a cookie/cookies from the plate.)

Reasoning

How does Sam/Victoria know that there will be 6/3/2/1 cookies each? Shall we act it out? I wonder why Ma suggests that the twelve children eat their cookies before opening the door ...

Opening out

What do you think the children will do now? (Referring to the final page, both before and after the doorbell rings.)

You could act out a similar situation with different numbers of biscuits.

Recording

Would you like to do a drawing/picture to show how Sam and Victoria could share out the cookies?

The Mathematical Journey

Counting

- cardinality – the last number gives how many there are
- counting for a purpose – to see if everyone has the same number

Number symbols

- matching numerals to amounts, or recording amounts informally

Comparing

- saying who has more or not as many
- saying which numbers are more or less than others

Dividing

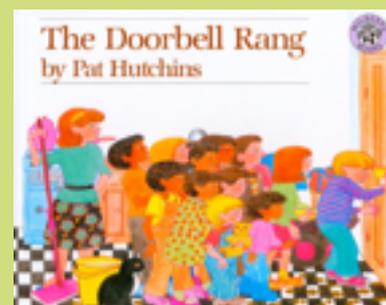
- sharing practically, using one-to-one and many-to-one
- understanding how 'dealing' results in equal shares and the same number each

Problem solving

- starting again and redistributing
- using adding and subtracting to make it fair
- checking to make sure they all have the same

Development and Variation

As suggested above, children could act out parts of the story to explore how the cookies could be shared. You may wish to tweak the story and start with a different number of cookies, perhaps deliberately choosing a number which is not divisible by 2, 4 and 6 to see what the children do.



Children could be invited to create their own version of the story, which they could tell aloud and they might like to make their own illustrations to go with it. You or another adult could scribe and the result would be a group book!

Other books which lend themselves to mathematical discussions include:

'The Blue Balloon' by Mick Inkpen, ISBN: 978-0316418867

'My Mum and Dad Make me Laugh' by Nick Sharratt, ISBN: 978-1406331851

'The Six Blind Men and the Elephant' by Clare Boucher (part of the Maths Together series), ISBN: 978-0744568073

'Aliens Love Underpants' by Claire Freedman, ISBN: 978-1416917052

Resources

'The Doorbell Rang' by Pat Hutchins, ISBN: 978-0688092344

A plate of 12 biscuits, or 12 items that could represent biscuits

At least 12 plates

A range of materials for children to use to record what they are doing, should they wish

