

# Two Halves

Halving

Solving problems



**Children often** enjoy finding things that are the same.

**Adults could** ask children to find half of lots of different things, quantities and collections.

## The Activity

With a playdough cookie, pose a story problem about having to share it with a friend. How could you do this?

Cut or break it in two pieces and keep the bigger 'half' yourself. Ask the children what they think about this.

Present a range of materials, such as paper shapes, string and bananas. Challenge children to halve them and then discuss and display the results.

## Encouraging mathematical thinking and reasoning:

### Describing

What do your halves look like?  
How did you make the halves?

### Reasoning

How do you know they are halves?  
How can you check they are the same size?  
What can he do if gets the wrong number/not enough/he has too many?

### Opening Out

What if you have to halve a box of four cakes? A collection of pennies?  
What if you have to halve a length of gold ribbon? A bottle of drink?  
Is there another way to fold a square of paper in half?

### Recording

Can you put something on paper to show:  
- what your halves look like?  
- how you know these are halves?  
How do you write half?

## The Mathematical Journey

### Counting and cardinality

- using counting to check both amounts are the same

### Matching numerals and amounts

- selecting numerals to match the numbers involved

### Subtracting

- predicting the result of taking away one number from another
- using the inverse addition facts (e.g. "Half of 10 is 5, because 5 and 5 make 10")

### Dividing

- understanding that dividing by two results in two equal parts - explaining this as 'same' or 'fair', or justifying by matching amounts

### Measures

- awareness of aspects such as length, volume, weight, area
- comparing by estimating or directly, or using measuring tools such as identical containers or balance scales
- explaining how they know the halves are the same amount

#### Development and Variation

Finding halves of:

- 2D shapes (area) by drawing lines or folding paper
- 3D shapes (volumes) by cutting e.g. fruit and playdough
- lengths e.g. ribbons, strips of paper - folding and cutting
- weights e.g. playdough - checking with balance scales
- volumes e.g. water - pouring into two identical containers
- numbers, of items e.g. pennies, jewels, pegs on pegboards
- numbers, of structured materials e.g. Unifix sticks, Numicon, Cuisenaire



#### Make a display of halves.

Where does half go on the number line? Make an 'ages' line from birth to 20, for children and siblings, to include half years e.g. one and a half, four and a half ...

Use:

- tablets to halve pictures
- mirrors to halve (and double) pictures

#### Resources

- 2D shapes, folding paper
- ribbons
- playdough, knives, scales
- water, jugs, identical containers - mirrors
- items e.g. pennies, jewels, pegs on pegboards
- structured materials eg Unifix sticks, Numicon, Cuisenaire

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