

The Flourish Federation—Knowledge Organiser

Brookfield Infant and Junior Schools



Subject Focus:

Maths

Year 1 - Term 5

Fractions

What? (Key Knowledge)

Recognise, find, and name a half as one of two equal parts

Recognise, find and name a half of a quantity (amount/

Recognise, find, and name a quarter as one of four equal

Recognise, find and name a quarter of a quantity (amount/

What? (Key Vocabulary)

Vocab	Comments
Numerator	The number above the line — the number of parts which are taken by
Denominator	The number below the line — the
Equal	The same as.

Visuals/Diagrams

1. Children begin first by finding half of shapes and objects. Using the notation $\frac{1}{2}$ is not important at this stage. They must know that **half is one of two parts**.

Which pictures show $\frac{1}{2}$?



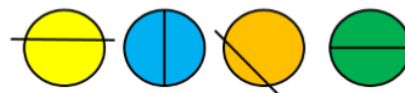
Show the children real life objects and how they can be cut in half.

How can we cut these objects in half?



Can any of the objects be cut in half in more than one way?

Which circles have been split into equal halves?



Match the halves to make 5 complete shapes.



2. Apply what they've learnt about finding half of an object to help find half of a amount/quantity/number.

Find half of each amount.



Find half of the amounts and complete the stem sentences.



There are ___ beads.

Half of ___ is ___

There are ___ marbles.

Half of ___ is ___

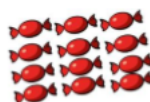
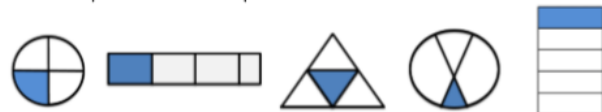
Which pictures show $\frac{1}{2}$?



3. Move onto find a quarter of shapes and objects.

4. Use real life objects, maths resources (cubes, counters etc) and pictorial representations to find a quarter of an amount/quantity.

Tick the shapes that show quarters.



There are ___ sweets.

There are ___ sweets in each quarter.

A quarter of ___ is ___



There are ___ peaches.

There are ___ peaches in each quarter.

A quarter of ___ is ___

Examples of Reasoning

Eva and Jack are both attempting to split a rectangle in half.



Eva



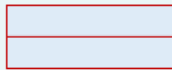
Jack thinks he can find three more ways.



Jack

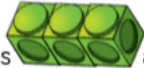
Find Jack's three examples.

Possible answers:



One cube  is a quarter, what could the whole look like?

Two cubes  are a quarter, what could the whole look like?

Three cubes  are a quarter, what could the whole look like?

How many different possibilities can you make?

Possible answers:

Any arrangement of 4 cubes.

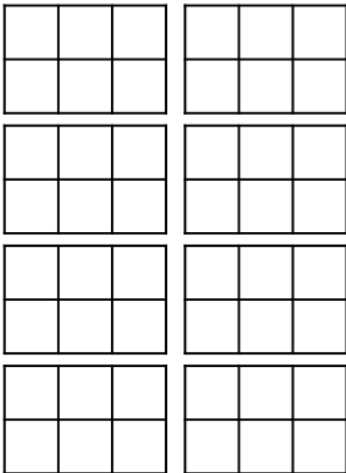
Any arrangement of 8 cubes.

Any arrangement of 12 cubes.

There are many different possibilities which the children will find through their exploration with the multilink.

Examples of Problem Solving

How many different ways can you shade one half of the shapes?



Any combination that has three whole squares shaded out of the 6

Mo is finding halves.

It is hard to find half of an odd number.



Do you agree with Mo? Explain your answer.

Alex is folding two identical paper strips.



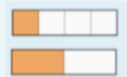
I think $\frac{1}{4}$ of the strip will be bigger than $\frac{1}{2}$ of the strip because 4 is bigger than 2

Use paper strips to prove Alex is

Possible answer: I agree with Mo because an odd number cannot be shared equally between 2. It would not give a whole number answer.

Possible answer:

When the whole is the same, one quarter will be smaller because it is one of four equal parts compared to a half which is one of two equal parts.



ICT Opportunities

Purple Mash:

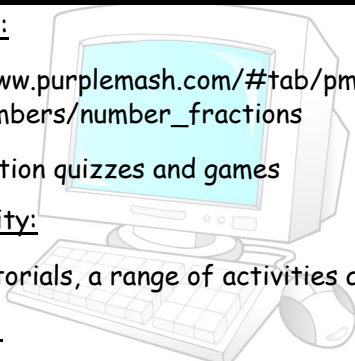
- https://www.purplemash.com/#tab/pm-home/maths/numbers/number_fractions
- Many Fraction quizzes and games

Education City:

- Videos, tutorials, a range of activities and games

Manga High:

- A wealth of games, activities and competitions



Daily Maths

- Questioning during the register (How many people are absent? How many children are here? How many more children have school dinners than packed lunch).
- Lining up games - counting on/back, 2x, 5x and 10x table games
- Days of the week/months of the year

