

Sharing pizza

Purpose:

The purpose of this activity is to help your child explore, and use materials to represent and solve practical maths problems involving fractions.

Link to NZ Curriculum:

Your child is learning to find, add and record fractions of sets, shapes and quantities.

What you need:

Play dough

A plastic knife, or 'safe' kitchen knife

What to do:

Recognise that fractions can be challenging for some children.

In posing the following problems to your child, it is important that you make time to listen to and watch their explanation of their solution, and through discussion, help them to understand the important ideas that are part of these problems.

- Have your child make several 'pretend' small pizzas out of the dough and act out the following problems using these 'pizzas'.

Pose these problems:

- "If you have two halves of a pizza, how much pizza do you have altogether? Can you write that?" ($2/2 = 1$) Repeat with other common fraction values such as four quarters, six sixths.
- "If you cut a pizza in half and eat one half, how much is left?" Repeat with thirds, quarters and other common fraction values.
"Can you write that as an equation?" eg. $2/2 - 1/2 = 1/2$; $3/3 - 1/3 = 2/3$, $4/4 - 1/4 = 3/4$
- "We buy a meat lovers' pizza, a chicken pizza and a BBQ pizza and cut each pizza into eighths. There are some pieces of each pizza left over. How much pizza is left altogether?"
Eg. $1/8 + 5/8 + 3/8 = ?$
Vary the story. eg. "...cut into sixths' and these amounts are left: $5/6 + 2/6 + 2/6$..."
How do you write that?
- "You have $5/8$ pizza and give away $3/8$ of a pizza. How much pizza is left?" ($2/8$). Your child may recognize this is also $1/4$, but equivalent fractions are not the focus here.
Vary the story. "...2 and $1/4$ pizzas and give away $3/4$..." etc.
"How do you write that?"

What to expect your child to do:

- Make, name and correctly write common unit fractions (these have a numerator of 1, for example $1/2$, $1/3$, $1/4$, $1/5$, etc.)
- Recognise and be able to show other names for 1 whole. For example: $2/2 = 1$, or two halves is the same as 1 (whole), $3/3 = 1$, or three thirds is equal to 1, $8/8 = 1$, or eight eighths of a pizza makes 1 whole pizza.
- Add fraction parts of the same kind (that have the same denominator). For example $5/8 + 4/8 = 9/8 = 1 \frac{1}{8}$
- Recognise that a fraction greater than 1 eg. $9/8$ (also known as an improper fraction), has the same value as $1 \frac{1}{8}$ (known as a mixed numeral because it has the whole number 1, and a fraction, $1/8$)
- Subtract fraction parts of the same kind (that have the same denominator) For example: $5/8 - 2/8 = 3/8$.