



Year 6 Fractions Organiser

Star Vocabulary

Numerator	The top number in a fraction. It shows how many equal parts we have.
Denominator	The bottom number in a fraction. It shows how many equal parts the shape/quantity is divided into.
Highest common factor	The greatest number that is a factor of two (or more) other numbers.
Lowest common multiple	The lowest common multiple of two numbers is the smallest whole number which is a multiple of both.
improper fraction	When the numerator is greater than the denominator.

I can find equivalent fractions, convert between improper fractions and add and subtract fractions with the same denominator.

I can compare and order fractions and use the four operations to solve problems involving fractions.

Sentence Stems

It can't be... because...
 I noticed that...
 It must be ... because...
 If...then...
 This is different because...
 This is the same because...
 This is true here because...
 I already know that... so...

Misconceptions: Why?

COMMON MISCONCEPTIONS

When multiplying a fraction by a whole number, children may multiply both the denominator and the numerator, rather than just the numerator.

When presented with questions such as ' $\frac{2}{3}$ of a number is 30. What is the number?' children may think that 30 is the whole, not the part, and so find $\frac{2}{3}$ of 30.

Calculations Involving Fractions

We need to find $2\frac{3}{4} + 1\frac{1}{2}$.

Method 1

Add the wholes: $2 + 1 = 3$
 Add the parts: $\frac{3}{4} + \frac{1}{2} = \frac{3}{4} + \frac{2}{4} = \frac{5}{4}$
 $\frac{5}{4} = 1\frac{1}{4}$
 So $2\frac{3}{4} + 1\frac{1}{2} = 3 + 1\frac{1}{4} = 4\frac{1}{4}$

Method 2

$2 = \frac{8}{4}$ $1\frac{1}{2} = \frac{3}{2} = \frac{6}{4}$
 So $2\frac{3}{4} + 1\frac{1}{2} = \frac{8}{4} + \frac{6}{4} = \frac{14}{4} = 3\frac{6}{4} = 3\frac{3}{2} = 4\frac{1}{2}$

Example 1: $3\frac{1}{3} - 1\frac{1}{2}$ can be written as $\frac{10}{3} - \frac{3}{2}$

$\frac{10}{3} - \frac{3}{2} = \frac{20}{6} - \frac{9}{6} = \frac{11}{6}$

Change back to a mixed number: $\frac{11}{6} = 1\frac{5}{6}$

Example 2: There is $\frac{9}{10}$ of the jar to be shared equally into 3 bowls.

jar bowl 1 bowl 2 bowl 3

$\frac{9}{10} \div 3 = \frac{3}{10}$

$\frac{3}{10}$ of the jar of baby food should be put into each bowl.

Example 3: Each trip uses $\frac{1}{3}$ of a tank of fuel. There are 5 trips in a day.

$\frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} = 1\frac{2}{3}$

or $\frac{1}{3} \times 5 = \frac{5}{3} = 1\frac{2}{3}$

$1\frac{2}{3}$ tanks of fuel are used in a day.

Factual & Conceptual Fluency progression

