Year 5 Fractions Knowledge Organiser

Star Vocabulary

Equivalent	equal in value, amount, function, meaning etc.
Numerator	The number above the line in a vulgar fraction showing how many of the parts indicated by the denominator are taken.
Denominator	The number below the line in a vulgar fraction; a divisor.
Whole	All of; entire.
Fraction	a numerical quantity that is not a whole number
Simplify	to reduce an equation or fraction to a simpler form by cancellation of common factors, regrouping of terms in the same variable.
Improper	A fraction in which the numerator is greater than or equal to the denominator.
Mixed number	A whole number and a fraction combined into one mixed number.
Convert	To change a value or expression from one form to another.

Can recognise and identify a numerator and denominator in a fraction and explain what these represent.

Children extend their understanding of fractions and mixed numbers by adding and subtracting unrelated fractions using formal written methods involving finding common denominators.

Fractions

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.

$3\frac{1}{3} = \frac{10}{3}$

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

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

I changed each number to an improper fraction.

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

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

Each trip uses $\frac{1}{3}$ of a tank of fuel.

There are 5 trips in a day.

$\frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} = \frac{5}{3} = 1\frac{2}{3}$

Sentence Stem

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?

When converting a mixed number to an improper fraction, children may simply add the whole number to the numerator of the mixed number, rather than adding what the whole number is worth. For example, they may convert 4 5 6 into 9 6, rather than 9 6.

Factual & Conceptual Fluency progression

- Addition and subtraction within 10.
- Secure and maintain fluency in addition and subtraction within and across 10, through continued practice.
- Recall the 2, 4 and 8 multiplication tables, and corresponding division facts.
- Recall the 7-multiplication table, and corresponding division facts.
- Addition and subtraction across 10.
- Recall the 10 and 5 multiplication tables, and corresponding division facts.
- Recall the 3, 6 and 9 multiplication tables, and corresponding division facts.
- Recall the 11 and 12 multiplication tables, and corresponding division facts.
- Secure and maintain fluency in all multiplication tables, and corresponding division facts, through continued practice.