

Year 4 Fractions and Decimals 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.
Fraction	A numerical quantity that is not a whole number
Decimal	The decimal point separates the whole number from the fractional part.
Tenths	One tenth is the same as one out of ten parts.
Simplify	to reduce an equation or fraction to a simpler form by cancellation of common factors, regrouping of terms in the same variable.
Improper Fraction	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.
Simplest Fraction	The smallest possible equivalent fraction of the number.

I can write fractions and can identify the numerator and denominator within a fraction.

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

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?

COMMON MISCONCEPTIONS	COMMON MISCONCEPTIONS
Children add or subtract the denominators when adding or subtracting fractions.	Children may not be able to see the relationship between tenths and hundredths.
Children may find it difficult to work with improper fractions and mixed numbers.	Children may not be able to see that fractions are not equivalent when the numerators are the same, but the denominators are different.
When finding the whole amount, children just find a fraction of an amount.	

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.