Subject	Year	Month
Mathematics	8	December

Topic:

CONVERTING FDP — 5 LESSONS

Content (Intent)

Prior Learning

Y7 Nov
- Ordering a mixture of Fractions, decimals, percentages

Y7 Jan
- Write one quantity as a fraction of another
- Fractions and percentages

Y7 May
- Calculating with fractions
- Convert between mixed numbers and top-heavy fractions

Y8 Nov
- Some basic FDP equivalents
- Use FDP to represent a proportion or probability.

Future Learning

Y8 Jan
- Connections between FDP and ratio

Y8 March
- Multiplier method for percentage

Y10
- FDP at GCSE

Objectives

- Recall some decimal and fraction equivalents (e.g. tenths, fifths, eighths, thirds, quarters, etc)
- Write a terminating decimal as a fraction
- Write a fraction in its lowest terms by cancelling common factors
- Use a calculator to change any fraction to a decimal
- Identify if a fraction is terminating or recurring (using the product of primes of the denominator)

For teaching purposes

Possible questions
- Without using a calculator, convince me that 3/8 = 0.375
- Show me a fraction / decimal / percentage equivalent.
- What is the same and what is different: 2.5, 25%, 0.025, ¼ ?

Misconceptions
- may make incorrect links. E.g. 1/5 = 0.15 or 0.5
- may think that 5% = 0.5, 4% = 0.4, etc.
- may think it is not possible to have a percentage greater than 100%.

Pedagogical notes (implementation)

NRICH: History of fractions
NRICH: Teaching fractions with understanding

The division symbol (÷) is a fraction with a dot in numerator and denominator.
Every division can be written as a fraction

Common approaches
All pupils should use the horizontal fraction bar to avoid confusion when fractions are coefficients in algebraic situations

How will understanding be assessed & recorded (Impact)

8BAM7 Fractions and Decimals
End of term Assessment in March
End of Year Assessment in June

How can parents help at home?

MathsWatch clips
Qualification KS3 - N32, N23c
Qualification GSCE - 84, 88

Further reading/discussion

Reading / Enrichment

KM: FDP conversion. Templates for taking notes.

KM: Fraction sort. Tasks one and two only.

KM: Maths to Infinity: Fractions, decimals, percentages, ratio, proportion

NRICH: Matching fractions, decimals and percentages

Literacy

Fraction
Mixed number
Top-heavy fraction
Percentage
Decimal
Proportion
Terminating
Recurring
Simplify, Cancel

Notation
Diagonal v horizontal fraction bar

Numeracy Links

Careers Links

Accountant
Banker
Architect
Basic numeracy requirement for all careers