Year 8 Maths Learning Journey

Spring term 4

Developing number: Fractions and Percentages

Core knowledge	Reference
Convert fluently between key fractions decimals and percentages "Explain why one third is not the same as 0.3 0r 30%?"	WORKSHEET
Calculate key fractions, decimals, and percentages of an amount without a calculator "Explain how to find 3/7 of an amount"	WORKSHEET
Calculate fractions, decimals and percentages of an amount using calculator methods "What keys could you press to find 23% of 45?"	WORKSHEET
Convert between decimals and percentages greater than 100% "Is it possible to have a percentage greater than 100%?"	WORKSHEET
Percentage decrease with a multiplier "Why is decreasing by 46% the same as finding 54%?"	WORKSHEET
Calculate percentage increase and decrease using a multiplier "When increasing an amount by a given percentage, how do we calculate the multiplier?"	WORKSHEET
Express one number as a fraction or a percentage of another without a calculator "Is it possible to convert fortieths to hundredths? Why or why not?"	WORKSHEET
Express one number as a fraction or a percentage of another using calculator methods "How do we use a calculator to convert a fraction to a decimal and then to a percentage?"	WORKSHEET
Work with percentage change "What's the difference between profit and loss?"	WORKSHEET
Choose appropriate methods to solve percentage problems "What is the same and what is different in these questions?"	WORKSHEET
Find the original amount given the percentage less than 100% (H) "From the percentage given, what other percentages can we easily work out?"	WORKSHEET
Find the original amount given the percentage greater than 100% (H) "Is the amount given more or less than the new amount?"	WORKSHEET
Choose appropriate methods to solve complex percentage problems (H) "How can you tell if a question involves finding an amount before a percentage change? How does this affect your approach to the question?"	WORKSHEET

Learning Checkpoints

LC Title	Completed	Dirt
Fractions and Percentages		

Key Vocabulary:

Fraction - the result of dividing one integer by a second integer

Decimal – where the tenths, hundredths, thousandths etc. are represented as digits following a decimal point

Percentage – a fraction expressed as the number of parts per 100 and recorded using %

Convert – changing from one quantity or measurement to another

Equivalent – a numerical or algebraic statement or expression which is the same as the original

Increase – make something bigger (in size or quantity)

Decrease - make something smaller (in size or quantity)

Reduce – divide the numerator and denominator by a common factor

Multiplier – the number you are multiplying by

Profit – the money made after expenses

Loss – the differences between the cost price and the selling price

Reverse – the opposite of another operation

Related facts – related to the four operations and the recall about the composition of a number

Bar model - a pictorial representation of a problem or concept where bars or boxes are used to represent the known and unknown quantities

Repeated – the process of repeatedly doing something (addition, subtraction etc.)

Depreciate – to go down in value

Power/index/exponent - a number positioned above and to the right of another (base). Can be negative, zero or fractional