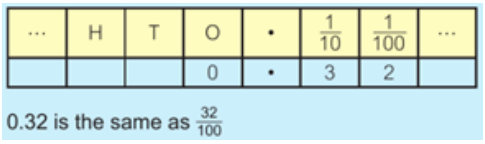
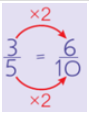
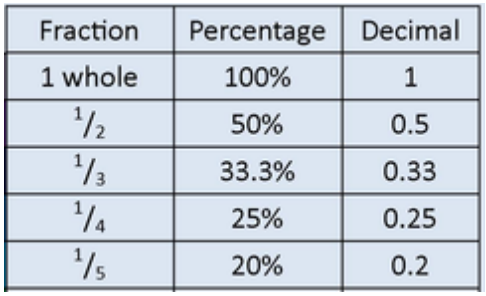
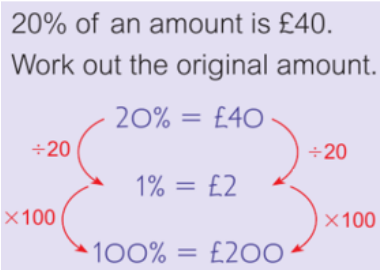
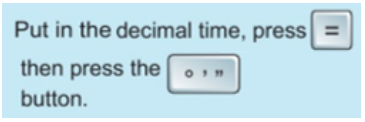
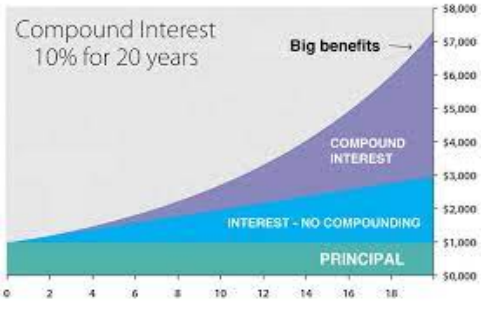
Prior Knowledge			
1	Simplify fractions	$\frac{16}{40} \overset{\div 8}{=} \frac{2}{5}$	Simplify by dividing the numerator and the denominator by their highest common factor.
2	Decimals to fractions		Use place value to write as a fraction with denominator 10, 100, 1000…, simplify if necessary.
3	Fractions to decimals		Use place value if denominator is 10, 100, 1000, …, or convert to an equivalent fraction with a denominator of 10, 100,1000, …
4	Equivalent fractions, decimals and percentages		Learn the common fraction, decimal, and percentage equivalents.
Core Knowledge			
5	Decimal hours	$2 \text{ hours and } 6 \text{ minutes} = 2\frac{6}{60} = 2\frac{1}{10}$ $= 2.1 \text{ hours}$	Write minutes as a fraction with a denominator of 60, simplify and convert to a decimal.
6	Terminating decimal	0.235	A terminating decimal ends after a definite number of digits.
7	Recurring decimal	$⅓ = 0.33333333\ldots$ $\frac{5}{11} = 0.45454545\ldots$	A recurring decimal has a digit or a sequence of digits which repeats forever.
8	Recurring decimal notation	$\frac{2}{3} = 0.66666\ldots = 0.\dot{6}$ $\frac{2}{11} = 0.181818\ldots = 0.\dot{1}\dot{8}$ $\frac{1}{7} = 0.142857142857\ldots = 0.\dot{1}42857\dot{}$	The repeating section is represented by placing dots over the first and last digits of the repeating sequence.
9	Fractions to decimals	$\frac{3}{8} = 8\overline{)3.^{3}0^{6}0^{4}0}\ 0.375$	The line in a fraction means 'divide by'. You can use written division to write fractions as decimal. Divide the numerator by the denominator.
10	Mixed numbers	1½ = 1.5 = 150% 3¾ = 3.75 = 375%	A positive mixed number is greater than 1. So the decimal equivalent is greater than 1 and the percentage equivalent is greater than 100%.
11	Proportion	$\frac{1}{10} = 0.1 = 10\%$	A proportion of a whole can be written as a fraction, decimal or percentage.
12	A number as a fraction of another	e.g. Write 250g as a fraction of 50kg. 50kg = 50 000g $\frac{250}{50000} = \frac{1}{200}$	To express one amount as a fraction or percentage of another, they must be in the same units.
13	Multiplier	Find 12% of 50. 12% = 0.12 50 x 0.12 = 6	When calculating percentages, find the decimal equivalent and use that as the multiplier.

14	Percentage increase	Increase £36 by 2% Method a) 1% of 36 = 0.36 2% of 36 = 0.72 36 + 0.72 = £36.72 Method b) 100 + 2 = 102% 102% = 1.02 (multiplier) 36 x 1.02 = £36.72	To **increase** an amount by a percentage, a) work out the percentage then **add** it to the original amount. Or b) add the percentage to 100%, then work out the multiplier.
15	Percentage decrease	Decrease 65kg by 5% Method a) 10% of 65 = 6.5 5% of 65 = 3.25 65 - 3.25 = 61.75kg Method b) 100 - 5 = 95% 95% = 0.95 (multiplier) 65 x 0.95 = 61.75kg	To **decrease** an amount by a percentage, work out the percentage of the amount then **subtract** it from the original amount. Or subtract the percentage from 100%, then work out the multiplier.
16	Interest		Interest is money charged for borrowing or earned for saving.
17	Simple interest	£16,000, 3 years Earns 3.1% per annum and the interest in paid yearly by cheque • 16000 x 0.031 = £496 Each year £496 interest is earned. After three years = 3 x 496 = £1488	Simple interest is interest calculated on the original amount of money, it is the same each year.
18	Unitary method		You can use the unitary method to find the original amount after a percentage increase or decrease.
Depth Knowledge			
19	Decimal hours (calculator)		
20	False positive		A test result that falsely indicates that a patient has the disease when they don't.
21	Compound interest		Most banks pay compound interest. Interest is added to the principal investment as it is earned.