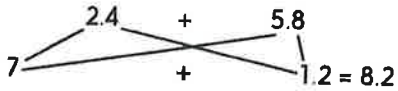
Y5	National Curriculum	Addition	Subtraction	Models and images	Maths Talk
	add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Add and subtract numbers mentally with increasingly large numbers Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why add and subtract fractions with the same denominator, and denominators that are multiples of the same number solve problems involving number up to 3 decimal places	Know number facts (bonds) to: multiples of 10, 100, and multiple of ten bonds to 1000 Know decimal number bonds to 1 and to the next whole number Add to the next 10 from a decimal number, *e.g. 13·6 + 6·4 = 20*   Recognise fraction complements to 1 and to the next whole number. (E.g. $1\ ^{2}/_{5} + \ ^{3}/_{5} = 2$) Use mental strategies to add and subtract numbers with two significant digits only E.g. 3.4 + 4.8 or 23,000 + 47,000 etc. (***whole numbers to 5/6?-digits and decimal numbers to tenths/hundredths?***)   • Place value partitioning (no work calculations) E.g. 82,472 + 30,004, 4.58 – 0.08 = • Rounding and adjusting including near multiples/near doubles • Decimal numbers which are near multiples of 1 or 10, including money. *(E.g. 6·34 + 1·99 or £34·59 - £19·95)* • Partitioning; e.g. 2.5 + 5.8 as 5 + 2 and 0.5 + 0.8 which is 7 + 1.3 = 8.3  • Counting on & back in 0.01s/0.1s/1s/10s/100s/1000s/10,000s/100,000s • Use counting up subtraction, with knowledge of number bonds to 10/100 or £1, as a strategy to perform mental subtraction. (E.g. £10 - £3.45 or 1000 – 782] **Estimate/approximate - Number nonsense/number sense**	Concrete apparatus numicon, multilink, Dienes blocks, Bead bar Number lines Empty number lines 100 grid PV grid Bar model Part part whole (fractions/decimals)	Fish n chip numbers (74 n 26 ...) Frog – hopping up from smaller to larger number, 2, 3 or 4 hops? bond to 10, bond to next multiple of 10, 100, etc. 'Easy-peasy no-work calculations' 'Number sense number non-sense' extra tens/hundreds (written addition) Moving tens (written subtraction) *Does it **look** right?*
		Written method: Column addition to add two or three whole numbers with up to 5 digits Use column addition to add any pair of two-place decimal numbers including amounts of money. £14 60p 4p £28 70p 8p + £12 20p 6p £1 10p £55 60p 8p £55.68	**Written method**: Use compact or expanded column subtraction to subtract numbers with up to 5 digits. 0 15 13 1 14 - X 6 3 2 4 8 5 1 6 7 8 0 8		

		Begin to add related fractions using equivalences. (E.g. ½ + $^1/_6$ = $^3/_6$ + $^1/_6$) NOTE: Equivalent fractions are the basis for adding and subtracting fractions. **Choose the most efficient method** **Estimate using rounding to check answers** 15.68 + 27.86 11.1 43.54	Use complementary addition for subtractions where the larger number is a multiple or near multiple of 1000. E.g. 50,000 – 28,347 +53 +600 21,000 = 21,653  28,347 28400 29000 50,000 Use complementary addition for subtractions of decimals with up to two places incl. amounts of money: £280 - £136.40 +60p +£3 +£60 +£80 =£123.60  £136.40 £137 £140 £200 £280 Begin to subtract related fractions using equivalences. (E.g. ½ – $^1/_6$ = $^2/_6$) **Choose the most efficient method** **Estimate using rounding to check answers**		