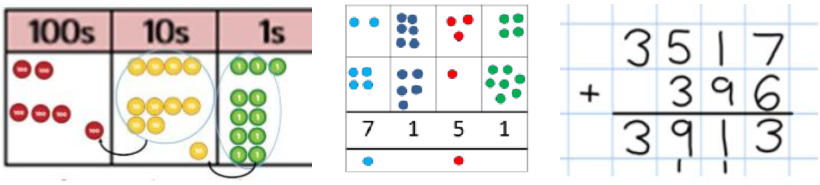
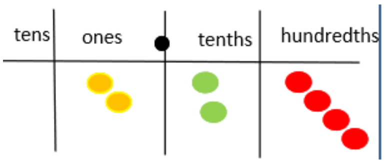
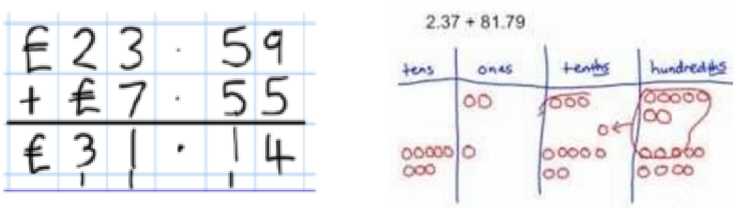
RAF Benson Community Primary School

ADDITION

Children in Year 5 need to be able to:

- add whole numbers with more than 4 digits using formal column addition
- add numbers mentally with increasingly large numbers
- solve addition multi-step problems in contexts, deciding which operations and methods to use and why

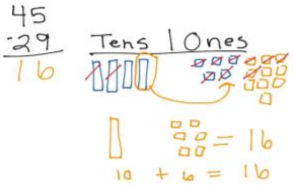
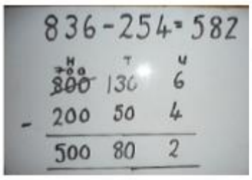
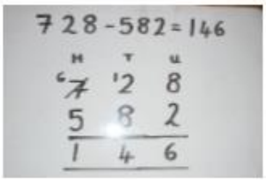
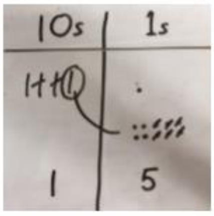
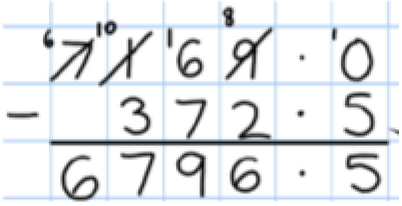
STRATEGIES	EXAMPLES
Add numbers with more than 4 digits	 Draw representations using place value grid. (Can circle when they make an exchange.)
Add decimals with 2 decimal places, including money	 Children can use decimal place value counters to help with understanding.  It is important for children to recognise that the decimal point does not move to help setting out in columns.

KEY LANGUAGE
Add, equals, greater/more than, parts, whole, partition, bonds, hundreds, tens, ones, tenths, hundredths, column addition, place value, exchange.

SUBTRACTION

Children in Year 5 need to be able to:

- subtract whole numbers with more than 4 digits, including using formal column subtraction
- subtract numbers mentally with increasingly large numbers
- use rounding to check answers to calculations and levels of accuracy
- solve subtraction multi-step problems, deciding operations/methods to use and why

STRATEGIES	EXAMPLES
Column subtraction with regrouping	   Start using drawings of ones and tens and crossing off and partitioned method to support understanding of exchanging.
Subtract with at least 4 digits, including money and measures	#   Can continue to represent the numbers pictorially to support and show exchange. Ensure they have place value understanding of decimals to ensure numbers are in correct place value columns.

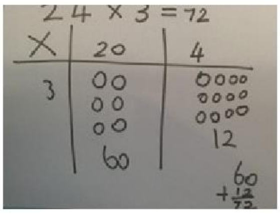
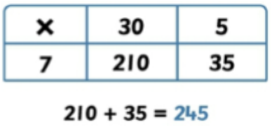
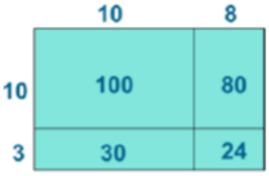
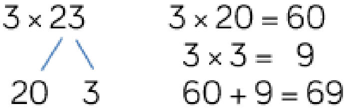
KEY LANGUAGE

Subtract, take-away, minus, equals, less than, parts, whole, hundreds, tens, ones, tenths, hundredths, column subtraction, place value, regroup, exchange, decimal.

MULTIPLICATION

Children in Year 5 need to be able to:

- multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers
- multiply numbers mentally, drawing upon known facts
- divide whole numbers and those involving decimals by 10, 100 and 1,000
- solve division problems, using knowledge of factors, multiples, squares and cubes

STRATEGIES	EXAMPLES
Grid method multiplying 3-digit numbers by 1-digit	  × | 30 | 5 7 | 210 | 35 210 + 35 = 245  | 10 | 8 10 | 100 | 80 3 | 30 | 24 Start using counters/shapes to create arrays. Multiply by one digit and show the clear addition alongside the grid. Move onto multiplying by 2 digits with different rows.
Column multiplication	  3×23 20 3 $3 \times 20 = 60$ $3 \times 3 = 9$ $60 + 9 = 69$ $\begin{array}{r} 23 \\ \times\ 3 \\ \hline 69 \\ \hline \end{array}$ Children can continue to represent the counters pictorially to support. Move to column multiplcation, partition the numbers to show where the digits come from.

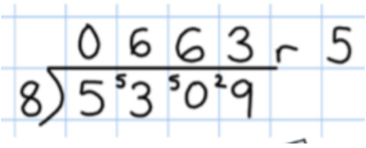
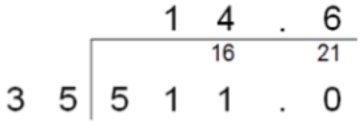
KEY LANGUAGE

Multiply, times, repeated addition, groups of, multiple, equal, double, array, partition, inverse, grid, ones, tens, digits, column multiplication.

DIVISION

Children in Year 5 need to be able to:

- divide numbers mentally, drawing upon known facts
- divide numbers up to 4 digits by a one-digit number using short division and understand remainders in context of the problem
- divide whole numbers and those involving decimals by 10, 100 and 1,000
- solve division problems, using knowledge of factors, multiples, squares and cubes

STRATEGIES	EXAMPLES
Short division	  Use the ‘bus stop’ or short division method. Encourage them to count in multiples to divide efficiently. Remind them that remainders get carried onto the next digit.

KEY LANGUAGE
Divide, halving, sharing, groups of, equal, decimal, repeated subtraction, remainder, array, inverse, short division.

USEFUL WEBSITES

Times Tables:

www.multiplication.com/games/all-games

www.bbc.co.uk/teach/skillswise/maths

http://gamequarium.com/multiplication

All Maths:

https://www.mathplayground.com

https://login.mathletics.com

https://www.oxfordowl.co.uk/for-home/kids-activities/fun-maths-games-and-activities

https://www.topmarks.co.uk/maths-games