Division

Yr3	Yr4 & Yr5	Yr6
Introduce short division of two-digit numbers by a single-digit number.	Children begin to divide three-digit numbers by a single-digit number. Until children become confident, the numbers chosen should not result in a final remainder.	Continue to use short methods and begin to express remainders as decimals (see above). Introduce long division by chunking for division by two-digit numbers.

Number Facts

We believe that there are some simple facts related to addition, subtraction, multiplication and division that children should learn and remember. Being able to remember these facts quickly and accurately—without having to calculate them—is an essential element of becoming a capable and confident user of maths.

Children should remember addition facts for all of the numbers up to 10, for example 4+3=7. Remembering this fact allows children to quickly calculate 40+30=70 or 24+13=37 or 167—14 = 153

Knowledge of multiplication and division facts is a fundamental requirement to allow children to successfully learn to multiply and divide—as well as use fractions and percentages.

Children should start by reciting individual times tables along with an adult until they can remember them reliably. After that they can try writing them out and then, once they can do this fairly reliably, they can try to remember individual facts. At this stage, use of Times Tables Rockstars will really help children improve their ability to quickly and accurately recall the multiplication and division facts that they need to solve problems in school and in real life situations.

MyMaths and Doodlemaths

We use MyMaths and Doodlemaths to support your child's learning throughout the maths curriculum. (Times Tables Rockstars is focused on knowledge of multiplication and division facts.)

Both MyMaths and Doodlemaths feature interactive lessons and practice activities—which often take the form of games.
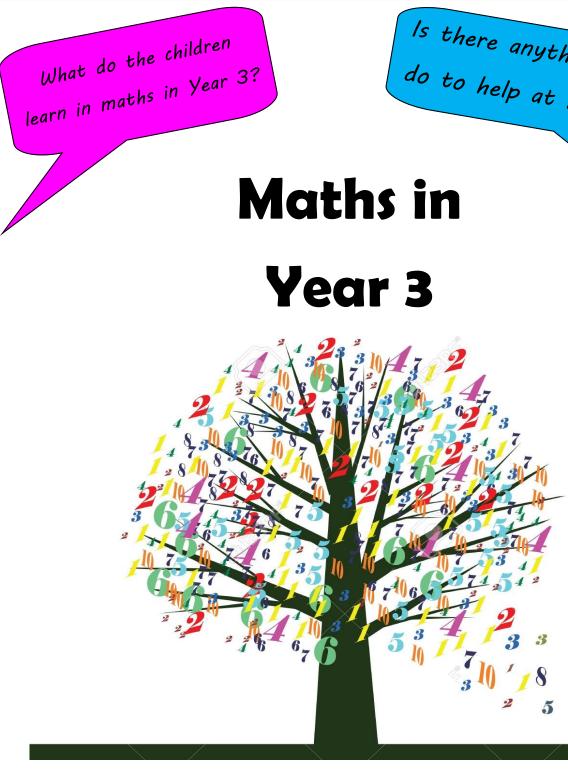
- MyMaths allows your child's teacher to set homework to provide further practice of topics covered in class.

- Doodlemaths provides a progression of activities and lessons which the child works through independently. Your child's performance is analysed by Doodlemaths and the activities they are then assigned are selected to provide practice in the most useful areas for them.

If you have any questions about your child's learning in maths or how you can support them at home, please don't hesitate to get in touch.

Maths in Year 3

Key Objectives for Year Three

- Read , write , compare and order numbers to 1000
- Recognise the value of each digit in a three-digit number
- Count from zero in multiples of 4, 8, 50 and 100
- Count up and down in tenths
- Identify 10 or 100 more or less than a given number
- Use columnar addition and subtraction with numbers up to three digits
- Solve problems using addition and subtraction – including missing numbers, use of numbers facts and place value
- Recall and use multiplication and division facts for the 3, 4 and 8x multiplication tables
- Use multiplication facts to solve problems
- Recognise, use, compare and order unit fractions and fractions with the same denominator
- Add and subtract fractions with the same denominator within one whole
- Add and subtract amounts of money to give change using both pounds and pence in practical contexts
- Tell and write the time from an analogue clock (12 and 24 hour clocks)
- Measure, compare, add and subtract lengths in mm / cm / m; mass in g and kg; volume / capacity in ml and l
- Interpret and present data using bar charts, pictograms and tables and solve one-step and two-step questions

A new curriculum for maths was issued to schools in 2014. This divides the maths taught in Years 3 to 6 (Key Stage 2) into the areas summarised below.

New concepts, knowledge and skills are introduced progressively as children move up through the year groups. This learning provides a foundation for the more challenging areas encountered later in school.

Number and Place Value

- Counting, reading, writing, comparing, ordering and rounding numbers, estimation, Roman numerals and negative numbers

Calculations

- Adding and subtracting mentally, adding and subtracting using written methods, estimation, use of inverse operations and checking
- Multiples, factors, prime numbers, squares and cubes
- Knowledge of multiplication and division facts
- Multiply and divide mentally, multiply and divide using written methods
- Solve problems involving all four operations (+, -, x & ÷)
- Use knowledge of the order of operations (BODMAS)

Algebra

- Missing number problems expressed in algebra
- Simple formulae expressed in words
- Generate and describe linear number sequences
- Number sentences involving two unknowns
- List all possibilities / combinations

Geometry

- Recognise, name and classify common shapes according to their properties
- Draw and make shapes and relate 2-D to 3-D shapes (incl. nets)
- Angles—measurement and properties
- Patterns
- Describe position and movement
- Coordinates

Fractions, Decimals and Percentages

- Recognise, find, write, name and count fractions
- Equivalent fractions
- Comparing and ordering fractions
- Add, subtract, multiply and divide fractions
- Understand how fractions, decimals and percentages can be equivalent
- Rounding, compare and order decimals
- Multiply and divide decimals
- Solve problems with fractions, decimals and percentages

Ratio and Proportion (Yr6 only)

- Relative sizes, similarity
- Use of percentages for comparison
- Scale factors
- Unequal sharing and grouping

Measurement

- Compare, describe and order measures
- Estimate, measure and read scales
- Money
- Telling time, ordering time, duration of events and units of time
- Convert between units (metric and imperial)
- Calculate perimeter, area and volume
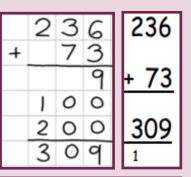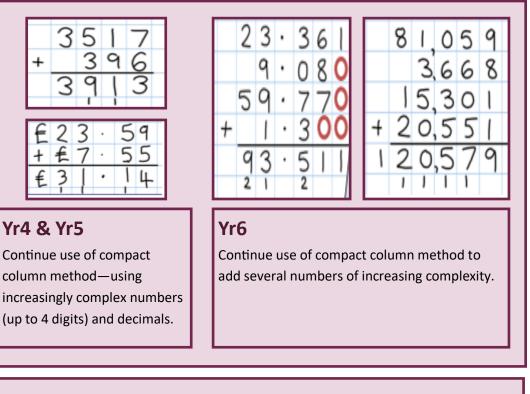- Solve problems involving measures

Statistics

- Interpret and represent data
- Solve problems involving data
- Calculate mean

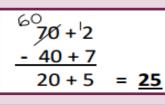# Calculations

Addition

Yr3
Move from expanded column method to (traditional) compact column method

Yr4 & Yr5
Continue use of compact column method—using increasingly complex numbers (up to 4 digits) and decimals.

Yr6
Continue use of compact column method to add several numbers of increasing complexity.
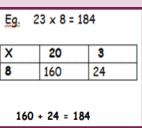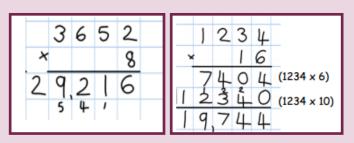
Subtraction

Yr3
Partitioned column method—starting with examples where no exchanging is needed

Yr4 & Yr5
Move to (traditional) compact column method for four-digit numbers and numbers with decimals values.

Yr6
Continue use of compact column method to subtract numbers of increasing complexity.

Multiplication

Yr3
Introduce grid method for two-digit times one-digit numbers

Yr4 & Yr5
When confident, children move towards (traditional) short multiplication for multiplication by a single-digit number and long multiplication for multiplication by two-digit numbers.

Yr6
Continue use of short and long methods and introduce multiplication of decimals by a single-digit number.