



St Gildas' Catholic Junior School

Y3-Y6 Maths

September 2014

Parents' Guide

'Must Dos' by the end of Year 3

- Write down all numbers said to them up to 1000
- Know place value of each digit in a 3-digit number
- Order a set of 3-digit numbers: greatest first, smallest first
- Count on and back from any number in 2s, 3s, 4s, 5s, 8s, 10s, 50s, and 100s up to 1000
- Know 100 more than a given number to 1000
- Know 100 less than a given number to 1000
- Add 2 or 3 numbers with 3-digits, using column addition
- Subtract 2 numbers with 3-digits using column subtraction
- Rapid recall: Add rapidly a 3-digit number to a 1-digit number; to a 10s number; and to a 100s number
- Subtract rapidly a 1-digit number from a 3-digit number; a 10s number and a 100s number
- Rapid Recall: 2x, 3x, 4x, 5x, 8x, 10s tables and their inverses
- Multiply a 2-digit number by a 1-digit number
- Divide 2, 3, 4, 5, 8 and 10 into a 2-digit number (no remainder)
- Fractions: Find $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}$ of a 2-digit number
- Order fractions from $\frac{1}{2}$ to $\frac{1}{12}$
- Know pairs of fractions that make up 1 whole
- Know equivalent fractions of $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}$ and $\frac{1}{10}$
- Add 2 fractions with same denominator
- Subtract 1 fraction from another with same denominator

Parents' Guide

'Must Dos' by the end of Year 4

Number

- Read and write all numbers to 10,000
- Know place value of each digit in a 4-digit number
- Order a set of 4-digit numbers: greatest first, smallest first
- Count on and back from any number in 2s, 3s, 4s, 5s, 6s, 7s, 8s, 9s, 10s, 25s, 50s, 100s and 1000s up to 10,000
- Round a number to the nearest 10 or 100
- Read and write negative numbers
- Count on and back in negative numbers
- Add a number of 4-digit numbers using formal methods
- Subtract 2, 4-digit numbers using formal methods
- Estimate the answer to additions with up to 3-digit numbers
- Estimate the answer to subtractions with up to 3-digit numbers

Number

- Rapid Recall: All table facts up to 12x, including their inverses
- Multiply 2-digit and 3-digit numbers by a 1-digit number
- Divide 2-digit numbers by a 1-digit number
- Recognise and use factor pairs within 144
- Fractions: Identify and name equivalent fractions with the same denominator up to and including 12
- Add and subtract fractions with the same denominator (within 1 whole)
- Decimal Fractions: Order decimal fractions up to tenths and hundredths
- Multiply and divide decimal fractions by 10 and 100
- Recognise fractional value of decimal fractions

Parents' Guide

'Must Dos' by the end of Year 5

Number

- Read, write and order numbers to 1,000,000
- Count on and back in steps of 100, 1,000, 10,000 up to 1,000,000
- Round any number to the nearest 10, 100, 1,000, 10,000 or 100,000
- Estimate and calculate additions involving 2, 3-digit numbers (to nearest 10)
- Estimate and calculate subtractions involving 2, 3-digit numbers (to nearest 10)
- Estimate and calculate multiplications involving a 2-digit and a 3-digit numbers (to nearest 10)
- Estimate and calculate divisions of a 3-digit number by a 1-digit number (to nearest 10)
- Add 3, 5-digit numbers using column addition
- Subtract one 5-digit number from another, using column subtraction
- **Rapid Recall:** Mentally add a 2-digit number to a 3-digit number
- **Rapid Recall:** Mentally add a 1000s number to a 5-digit number
- **Rapid Recall:** Mentally subtract a 2-digit number from a 3 or 4-digit number
- **Rapid Recall:** Mentally subtract a 1000s number from a 5-digit number
- Know all factors that make up numbers to 100
- Recognise all prime numbers to 100
- Multiply a 4-digit number by a 2-digit number using formal methods
- Divide a 4-digit number by a 1-digit number (with remainders)
- Multiply numbers by 10, 100 and 1,000

Parents' guide

'Must Dos' by the end of Year 5

Number

- Divide number by 10, 100 and 1,000
- Recognise and use square numbers and square roots
- Know and use the symbols $(^2)$, $(^3)$ and $(\sqrt{\quad})$ accurately
- Fractions: Compare and order fractions whose denominators are multiples of the same number
- Convert mixed numbers to improper fractions and visa versa
- Add and subtract fractions with the same denominator
- Multiple proper fractions and mixed fractions by whole numbers

Number

- Decimal Fractions: Read and write decimal numbers as fractions (up to hundredths)
- Round decimals with two decimal places to nearest whole number and one decimal place
- Read, write, order and compare decimal numbers with up to three decimal places
- Percentages: Recognise the % symbol
- Understand that percentage is measured as part of 100
- Solve problems which require knowing percentage and decimal value of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$ and $\frac{4}{5}$

Parents' Guide

'Must Dos' by the end of Year 5

Shape and measures

- Measure angles in degrees
- Draw a given angle accurately
- Know and use reflex angles
- Construct shapes from given dimensions
- Identify 3D shapes from 2D representations
- Identify, describe and represent the position of a shape following reflection and translation

Shape and Measures

- Add, subtract, multiply and divide units of measure (using decimal notation)
- Understand and use basic equivalence between metric and common imperial units
- Calculate, estimate and compare areas of squares and rectangles using cm squared (cm^2) and metre squared (m^2)
- Recognise volume in practical contexts

Parents' Guide

'Must Dos' by the end of Year 6

Number

- Read, write and order numbers to 10,000,000
- Round any number to any degree of accuracy
- Add and subtract negative numbers
- Multiply a 4-digit number by a 2-digit number
- Divide a 4-digit number by a 2-digit number, expressing remainder as a fraction, decimal fraction or by rounding to whole numbers
- Mental Agility: Calculations involving large numbers
- Mental Agility: Calculations involving two operations
- Use estimation to check answers
- Carry out problem solving calculations involving all 4 operations
- Add and subtract mixed numbers with fractions of different denominations

Number

- Fractions: Multiply simple fractions, writing answers in their simplest forms
- Divide proper fractions by whole numbers
- Identify value of each digit in a 3 decimal place number
- Multiply decimal fraction with 3 decimal places by 10, 100 and 1000
- Multiply and divide a number with 2 decimal places by 1-digit and 2-digit numbers
- Percentages: Use percentages for comparisons
- Calculate percentage of whole numbers
- Recall and use equivalences between fractions, decimal fractions and percentages
- Ratio: Use ratio to show relative sizes of 2 quantities
- Algebra: Solve linear missing numbers
- Continue a linear number sequence involving positive and negative numbers

Parents' Guide

'Must Dos' by the end of Year 6

Shape and Measures

- Compare and classify geometrical shapes based on properties and size
- Find unknown angles in a triangle, quadrilateral and regular polygon
- Illustrate and name parts of a circle, including radius, diameter and circumference
- Recognise, describe and build 3D shapes
- Create a cuboid from a net
- Describe properties of 3D shapes and identify parallel planes and symmetry
- Estimate size of angles
- Describe position on the full coordinate grid
- Draw, translate and reflect shapes
- Read, write and convert between standard units

Shape and Measures

- Calculate area of parallelograms and triangles
- Data: Draw, read and interpret graphs
- Use and interpret mean as an average