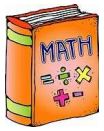
Year 6 to Year 7 Math's Learning Journey

Holy Trinity C of E Primary School



Year 7

Statistics

interpret and construct pie charts and line graphs and use these to solve problems

calculate and interpret the mean as an average.

Position & Direction

raw and translate simple shapes on the coordinate plane, and reflect them in the axes

describe positions on the full coordinate grid (all 4 quadrants)

recognise that shapes with the same areas can have different perimeters and vice versa

recognise when it is possible to use formulae for area and volume of shapes

calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units

calculate the area of parallelograms and triangles

convert between miles and kilometres

use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 decimal places

Algebra

generate and describe linear number sequences

express missing number problems algebraically

find pairs of numbers that satisfy an equation with two unknowns

enumerate possibilities of combinations of 2 variables

use simple formulae

Measurement

solve problems involving the calculation and conversion of units of measure, using decimal notation up to 2 decimal places where appropriate

Ratio & Proportion

solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

solve problems involving similar shapes where the scale factor is known or can be found

solve problems involving the calculation of percentages and the use of percentages for comparison

solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts

use written division methods in cases where the answer has up to 2 decimal places

multiply one-digit numbers with up to 2 decimal places by whole numbers

identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers are up to three decimal places

associate a fraction with division and calculate decimal fraction equivalents for a simple fraction

divide proper fractions by whole numbers

Fractions (decimals & percentages)

recall and use equivalences between simple fractions, decimals and percentages

multiply simple pairs of proper fractions, writing the answer in its simplest form

add and subtract fractions with different denominators and mixed numbers

compare and order fractions, including fractions >1

use common factors to simplify fractions

use estimation to check answers to calculations

identify common factors, common multiples and prime numbers

divide numbers up to 4 digits by a two-digit number using the formal written method of short division

use their knowledge of the order of operations to carry out calculations involving the 4 operations

solve addition and subtraction multi-step problem

solve problems involving addition, subtraction, multiplication and division

Addition, Subtraction, Multiplication & Division

perform mental calculations

multiply multi-digit numbers up to 4 digits by a two-digit whole number

solve number and practical problems that involve all of the above

Number & Place Value

use negative numbers in context, and calculate intervals across 0

Year 6

divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context

round any whole number to a required degree of accuracy

read, write, order and compare numbers up to 10 000 000 and determine the value of each digit