MATHS

Mental Objectives - Year 6

Southdale
C *of* E Junior school
Shining like stars in the universe

Y3/4 and 5 OBJECTIVES SECURE BY END OF AUTUMN 1

Count forwards or backwards in multiples of 4, 8, 6, 7, 9, 25 powers of 10 from any given number up to 1,000,000

Count forwards and backwards with positive and negative whole numbers, including through zero

Recognise the place value of each digit in numbers up to 1,000,000

Add and subtract numbers mentally with increasingly large numbers (add 9,99, etc.)

Compliments to 100 and 1000 (number line)

Decimal compliments to whole numbers (using a numberline)

Divide 100 and 1000, 10,000, 1 into 2,4,5 and 10 equal parts

Double and half numbers

Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000

Scaling number facts 10, 100 and 1000

Solve measure and money problems involving fractions,

Recall multiplication and division facts for multiplication tables up to 12 × 12

Use place value, known and derived facts to multiply and divide mentally

Multiplying together three numbers

Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers

Recall prime numbers up to 19, square numbers and cube numbers

Recognise equivalent fractions read and write decimal numbers as fractions

Count forwards and backwards in fractions (quarters, half, thirds, fifths tenths, hundredths etc)

Add and subtract fractions with the same denominator and denominators that are multiples of the same number

Find unit and non unit fractions of quantities

Recognise and write decimal equivalents to half, quarter, three quarters, tenths, hundredths, thousandth

Compare and order fractions whose denominators are all multiples of the same number

Recognise mixed numbers and improper fractions and convert from one form to the other

Multiply proper fractions and mixed numbers by whole numbers,

Write percentages as a fraction with denominator 100, and as a decimal

Know percentage and decimal equivalents of half, quarter, fifth, two fifths, four fifths and those fractions with a denominator of a multiple of 10 or 25.

Read time to the nearest minute convert time between analogue and digital 12- and 24-hour clocks

Convert hours to minutes; minutes to seconds; years to months; weeks to days.

Convert between different units of metric measure

Properties of 2d and 3d shapes, , including cubes and other cuboids, from 2-D representations

Round decimals with two decimal places to the nearest whole number and to one decimal place

Round any number to the nearest 10, 100 or 1000, 10 000 and 100 000

Identify right angles, acute, obtuse

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SECURE BY END OF AUTUMN 2

Round any whole number to a required degree of accuracy

Use negative numbers in context, and calculate intervals across zero

Perform mental calculations, including with mixed operations and large numbers

Identify common factors, common multiples and prime numbers

Use common factors to simplify fractions; use common multiples to express fractions in the same denomination

Compare and order fractions, including fractions > 1

Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places

Recall and use equivalences between simple fractions, decimals and percentages

Calculate percentages of numbers

SECURE BY END OF SPRING

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

Divide proper fractions by whole numbers

Use simple formulae

Shape – circles, triangles