

Number

Shape
and Space

Algebra

Data

Measures

NUMBER

Addition, Subtraction, Multiplication and Division, Fractions, Decimals, Percentages



- Identify place value in whole numbers
- Identify simple prime and composite numbers
- Identify and explore square numbers and square roots
- Add and subtract whole numbers and decimals (to 3 decimal places) without and with a calculator



- Identify common factors and multiples
- Multiply a 3-digit number by a 2-digit number
- Multiply a whole number by 10, 100 and 1000
- Divide a 2,3- and 4-digit number by a 2-digit number, with and without a calculator
- Divide simply by 10, 100 and 1000



- Compare and order fractions and identify equivalent forms of fractions
- Express improper fractions as mixed numbers and vice versa and position them on the number line
- Express tenths, hundredths and thousandths in both fractional and decimal form
- Add and subtract simple fractions and simple mixed numbers
- Multiply a fraction by a fraction
- Find a fraction of a number and find the whole number from a fraction of that number
- Divide a whole number by a fraction

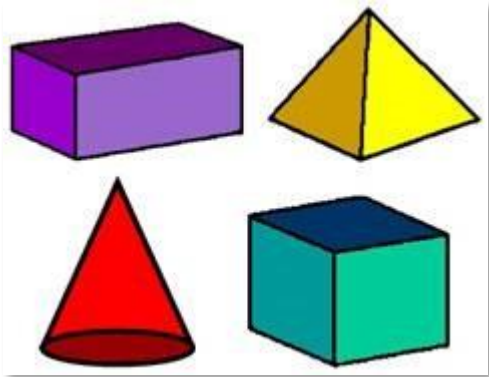


- Read, write and order decimals
- Identify place value in decimals
- Round decimals to nearest 0
- Change fractions to decimals and vice versa
- Multiply a decimal by a whole number with and without a calculator
- Multiply a decimal by a decimal with and without a calculator
- Divide a decimal number by a 2-digit number
- Divide a decimal number by a decimal without and with a calculator



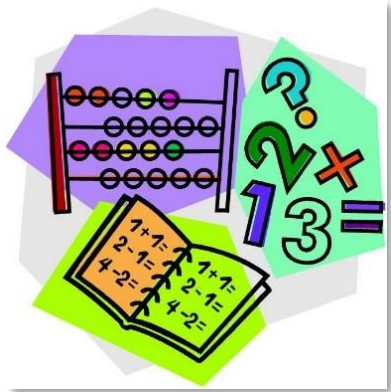
- Use percentages and relate them to fractions and decimals
- Compare and order percentages of numbers and decimals
- Solve problems relating to profit and loss, discount, VAT, interest, increases and decreases

SHAPE AND SPACE



- Recognise, classify and describe angles and relate angles to shape
- Estimate, measure and construct angles in degrees
- Explore the sum of angles in a quadrilateral
- Recognise angles in terms of a rotation
- Use angles and lines properties to classify and describe triangles and quadrilaterals
- Construct triangles from given sides and angles
- Classify 2D shapes according to their lines of symmetry
- Use 2D shapes and properties to solve problems
- Tessellate combinations of 2D shapes
- Identify and examine 3D shapes and explore relationships
- Draw the nets of simple 3D shapes and construct the shapes
- Plot simple co-ordinates and apply where appropriate
- Identify the properties of the circle and construct a circle of given radius and diameter
- Calculate the area of regular and irregular 2D shapes

ALGEBRA



- Identify positive and negative numbers on the number line
- Add simple positive and negative numbers on the number line
- Know simple properties and rules about brackets
- Identify relationships and record simple symbolic rules for number patterns
- Explore and discuss simple properties and rules about brackets and priority of operation
- Translate number sentences with a frame into word problems and vice versa
- Solve one step number sentences and equations
- Explore the concept of a variable in the context of simple patterns, tables and formulae
- Substitute values for variables
- Translate word problems with a variable into number sentences

DATA



- Read and interpret pictograms, single and multiple bar charts and pie charts
- Explore and calculate averages of simple data sets
- Collect, organise and represent data using pictograms, bar charts and pie charts
- Estimate the likelihood of the occurrence of events
- Identify and list all possible outcomes of simple random processes, order on a scale from 0-100%
- Construct and use frequency charts and tables

MEASURES

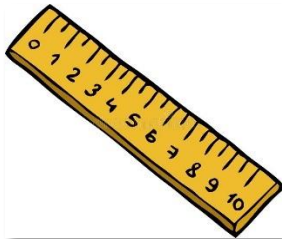
Time, Money, Length, Height, Width, Weight, Capacity and Area



- Interpret and convert between times in 12- hour and 24-hour format
- Read and interpret timetables and the 24-hour clock (digital and analogue)
- Read and solve word problems on Time



- Solve problems involving operations with € and decimal point
- Compare "value for money" using unitary method
- Read and solve word problems on Money



- Estimate and measure using appropriate metric units (ie. centimetres and metres)
- Solve problems involving operations with whole numbers, fractions, decimals and simple percentages
- Estimate and measure the perimeter of regular and irregular shapes
- Read and solve word problems on length, height and width



- Select and use appropriate instruments of measurements
- Estimate and measure weight using appropriate metric units (ie. grams and kilograms)
- Rename measures of weight
- Read and solve word problems on Weight



- Select and use appropriate instruments of measurements
- Estimate and measure capacity using appropriate metric units (millilitres and litres)
- Read and solve word problems on Capacity



- Calculate area using square centimeters and square metres
- Estimate and measure the area of regular and irregular 2D shapes