



**"Tick the checkbox if your child knows the topic well"**

### ■ Number and place value

- ☐ Counting
- ☐ Read, Write, Order and Compare Numbers
- ☐ Place Value
- ☐ Negative numbers
  - ☐ Addition, Subtraction, Multiplication, Division
- ☐ Rounding to the nearest
- ☐ Number Line
- ☐ Add / subtract
- ☐ Multiply / divide
- ☐ Order of operations (BIDMAS/BODMAS)
- ☐ Factors
- ☐ Prime Factorisation
- ☐ Multiples
- ☐ Prime Numbers
- ☐ Square and Cube Numbers
- ☐ Square and Cube Roots
- ☐ Indices (Powers, Roots) [Easy Level]

### ■ Fractions

- ☐ Recognise, write, name and count fractions
  - ☐ Proper Fractions
  - ☐ Improper Fractions
  - ☐ Mixed Fractions
- ☐ Convert between Mixed and Improper Fractions
- ☐ Add / subtract (like and unlike fractions)
- ☐ Multiply / divide fractions (like and unlike fractions)

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## ■ Fractions

- ☐ Equivalent fractions (i.e. Simplification or Reducing)
- ☐ Order and Compare fractions
- ☐ Fraction of a number
- ☐ Convert Fractions to Decimals
- ☐ Convert Fractions to Percentages
- ☐ Fractions of Shapes and Grids
- ☐ Word problems

## ■ Decimals

- ☐ Rounding decimals
- ☐ Order and compare decimals
- ☐ Add / subtract decimals
- ☐ Multiply / divide decimals
- ☐ Decimal manipulation (with 10, 100, 1000 etc)
- ☐ Convert Decimals to Fractions
- ☐ Convert Decimals to Percentages
- ☐ Word problems

## Percentage

- ☐ Convert Percentage to Fractions
- ☐ Convert Percentage to Decimals
- ☐ Percentage of a quantity
- ☐ Increase by a percentage
- ☐ Decrease by a percentage
- ☐ Find a percentage increase
- ☐ Find a percentage decrease
- ☐ Reverse percentage
  - ☐ Questions including Discount, Sale Price, Normal Price.
- ☐ Simple Interest (Rare Questions in 11 +)

## ■ Measurement

- ☐ Compare, describe and order measures (i.e. Units)
- ☐ Estimate, measure and read scales

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## ■ Measurement

- ☐ Money
- ☐ Convert between metric units
- ☐ Word problems ( Money, length, weight, Capacity / Volume)

## ■ Ratio and Proportion

- ☐ Simplify Ratio ( $a:b$ ,  $a:b:c$ )
- ☐ Share using a Ratio ( $a:b$ ,  $a:b:c$ )
- ☐ Relative sizes, similarity
- ☐ Maps & Scales
- ☐ Unequal sharing and grouping
- ☐ Direct and Inverse proportions
- ☐ Recipe Word problems

## ■ Patterns and Sequences

- ☐ Linear number sequences (Integers, Decimals)
- ☐ Nth term of a sequence
- ☐ Special sequences (triangular numbers, square numbers etc.)
- ☐ Geometric patterns and sequences (i.e. shapes)

## ■ Geometry - properties of shapes

- ☐ Recognise and name common shapes (both 2-D and 3-D)
- ☐ 2D - Properties
  - ☐ Quadrilaterals - properties
  - ☐ Quadrilaterals - names
  - ☐ Triangles - names
  - ☐ Polygons - names
  - ☐ Polygons - properties
- ☐ 3D - Properties, Nets, Dimensions
  - ☐ Names
  - ☐ Counting faces/edges/vertices of solids
  - ☐ Nets

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## ■ Geometry - properties of shapes

- ☐ Dimensions (comparing length area and volume)
- ☐ 3D Shapes - Surface area
- ☐ 3D Shapes - Volume
- ☐ Slicing of cube and cuboid
- ☐ Practical problems e.g. painting a surface
- ☐ Draw 2-D and 3-D shapes on Grid (including Nets)
- ☐ Angles - Types, naming, measuring, estimating
  - ☐ Measuring angles
  - ☐ Estimating angles
  - ☐ Naming angles (acute/obtuse/reflex)
  - ☐ Angles in a right angle
  - ☐ Angles on a straight line
  - ☐ Angles at a point
  - ☐ Vertically opposite angles
  - ☐ Angle sum of a triangle
  - ☐ Angle sum of a quadrilateral
- ☐ Angles - Parallel Lines
  - ☐ Alternate angles
  - ☐ Corresponding angles
  - ☐ Co-interior angles
- ☐ Angles & Properties - Polygons (Interior/Exterior)
  - ☐ Irregular polygons
  - ☐ Regular Polygons - Interior angles
  - ☐ Regular polygons - Exterior angles (learn how to draw)
  - ☐ Counting Diagonals in a Polygon
  - ☐ Sum of Interior Angles in a Polygon
  - ☐ Calculating Each Interior Angle
  - ☐ Calculating Exterior Angle
- ☐ 2D Shapes - Perimeter and area
  - ☐ Perimeter
  - ☐ Area from grid of squares
  - ☐ Calculate area of the Shaded region

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### ■ Geometry - properties of shapes

- ☐ Square
- ☐ Rectangle
- ☐ Parallelogram and Rhombus
- ☐ Trapezium
- ☐ Kite
- ☐ Area formulas
- ☐ Given area, find missing dimensions.
- ☐ Triangles
- ☐ Polygons
- ☐ Perimeter formulas
- ☐ Given perimeter find side of square
- ☐ Given perimeter find length or width of rectangle
- ☐ Circles (Area and Circumference)
- ☐ Compound shapes (Adding and Subtracting Shapes Area)
- ☐ Compound shapes (Perimeter)
- ☐ Pythagoras Rule
  - ☐ Find Short Side length / hypotenuse length

### ■ Geometry - position and direction

- ☐ Describe position, direction and movement
  - ☐ Translation
  - ☐ Rotation
  - ☐ Reflection
- ☐ Co-ordinates
- ☐ Movement on a grid
- ☐ Turning movements, compass directions and angles
- ☐ Compass directions and bearings
- ☐ Lines of symmetry
  - ☐ All Polygons
  - ☐ Alphabets
- ☐ Rotational symmetry (Clockwise/ AntiClockwise)
  - ☐ Order of Rotation
  - ☐ Degree of Rotation

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## Statistics

- ☐ Interpret and represent data
  - ☐ Pie chart (Very Important)
    - ☐ Pie Chart - given value of a sector, find the total
    - ☐ Pie Chart - given total, find the value of a sector
  - ☐ Bar chart
  - ☐ Line graph
  - ☐ Venn diagram etc.
- ☐ Solve problems involving data
- ☐ Mean, mode, median and range, Average of data
- ☐ Bus and Train Timetables (Reading from Tables)
- ☐ Word problems

## ■ Algebra

- ☐ Simplifying expressions  
(eg:  $2b+c+4b+3c = 6b+4c$ )
- ☐ Expand
- ☐ Factorise
- ☐ Construct Expressions, Formula and Equations from Words
- ☐ Solving equations
- ☐ Number sentences involving two unknowns
- ☐ Rearrange (change the subject)
- ☐ Solving two equations with two variables  
(Simultaneous equations)
- ☐ Substitute
- ☐ Algebraic Fractions (Word Problems)
- ☐ Word problems

**Time**

- ☐ Difference between times
- ☐ Unit conversion between seconds / minutes / hours
- ☐ Angle between the hands of a clock
- ☐ Reading time and distance tables

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### ■ Time

- ☐ Speed, distance and time formulae
- ☐ Mileage Charts
- ☐ Word problems

### ■ Probability

- ☐ Calculating the probability of an event
- ☐ Probabilities sum to 1
- ☐ Coins and Dice
- ☐ Spinner
- ☐ Pack of Cards
- ☐ Choosing an object from a bag
- ☐ Choosing a letter from a word
- ☐ Choosing a number from a list
- ☐ Two-way table
- ☐ Frequency Table
- ☐ Probability Scale (likely, certain, impossible, evens, unlikely)

### ■ Permutations and Combinations

- ☐ Listing Strategies
  - ☐ Use of  $m \times n$  (product rule) - pick girl and boy from class
  - ☐ Use of  $m \times n \times p$  (product rule) - pick starter/main/dessert
- ☐ Total number of possible routes that can be taken to get from A to B to C
- ☐ Problems on seating arrangements
- ☐ Problems on word arrangements

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