



Math Curriculum

from KG to Year 8

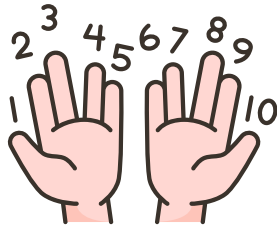
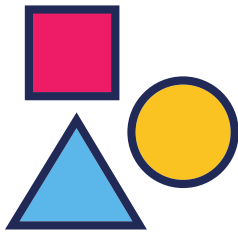
- **Success:** Preparing students for GCSE/IGCSE achievement.
- **Confidence:** Building strong skills in numbers and operations.
- **Curiosity:** Fostering problem-solving through engaging activities.
- **Skills:** Strengthening algebra, geometry, and data understanding.



KHDA APPROVED &
INSPECTED TEACHERS

EXPERIENCED &
QUALIFIED TEACHERS

Math Progression Summary



Foundation - Kindergarten

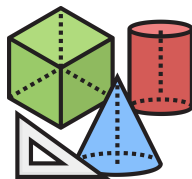
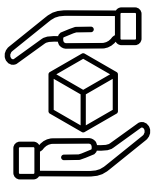
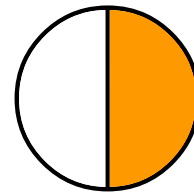
- Counting
- Comparison
- Shapes & Pattern

Key Stage 1 - Year 1 to 2

- Basic Math Operations,
- Simple Fractions,
- Time & Measurement
- Place Value



$$\frac{1}{2}$$

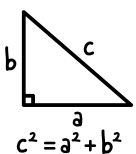
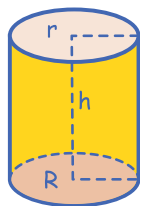
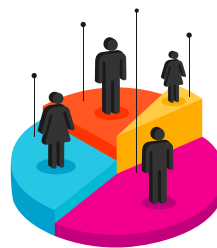


Lower Key Stage 2 - Year 3 to 4

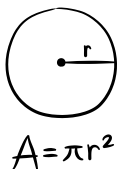
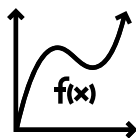
- Basic Multiplication and Division,
- Geometry (Angles, Perimeter, Area)
- Fractions & Decimals
- Data Handling & Problem Solving

Upper Key Stage 2 - Year 5 to 6

- Ratio & Proportion
- Statistics & Graphs
- Exam Prep & Reasoning
- Geometry (Symmetry, Transformations, Volume)



$$c^2 = a^2 + b^2$$



$$A = \pi r^2$$



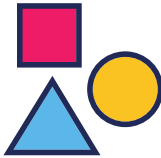
Key Stage 3 - Year 7 to 8

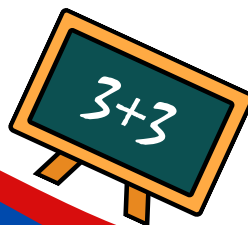
- Algebra (Expressions, Equations, Sequences)
- Geometry (Circles, Pythagoras, Trigonometry)
- Probability & Statistics
- Geometry (Symmetry, Transformations, Volume)
- Graphs & Function
- Exam Prep & Reasoning

Foundation – Kindergarten

Focus: Building number sense, recognising shapes, patterns, and early problem solving.

Activities:

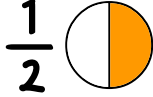
-  **Numbers & Counting:** Using blocks and beads to count, match, and order numbers – builds recognition and sequencing skills.
-  **Shapes & Patterns:** Shape hunts and puzzles help children identify shapes in their environment and create repeating patterns.
-  **Comparisons:** Sorting by size, colour, and weight develops early logical thinking and vocabulary (“bigger/smaller”, “heavier/lighter”).
-  **Early Problem Solving:** Role-play shop games and math stories encourage reasoning, sharing, and applying numbers to real-life contexts.

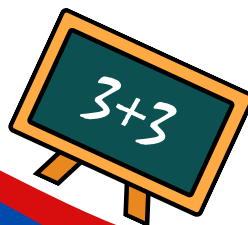
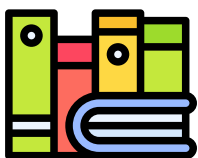


Key Stage 1 – Year 1 to 2

Focus: Understanding place value, basic operations, and exploring measurement.

Activities:

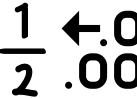
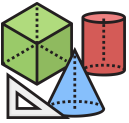
-  **Place Value & Operations:** Using number lines and counters to solve addition/subtraction – builds strong mental math foundations.
-  **Multiplication & Division:** Times table songs and flashcards improve recall, while grouping objects builds conceptual understanding.
-  **Fractions:** Folding paper and “fraction pizzas” make halves/quarters tangible and fun.
-  **Measurement & Time:** Measuring classroom items with rulers, weighing ingredients, and practising clocks build real-life numeracy.
-  **Geometry (2D/3D Shapes):** Constructing with blocks or drawing shapes develops spatial reasoning.

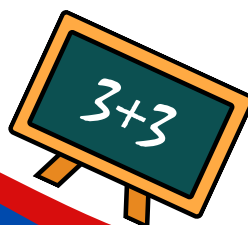
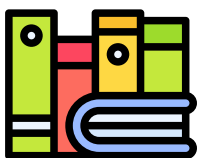


Lower Key Stage 2 – Year 3 to 4

Focus: Strengthening multiplication, fractions, geometry, and data handling.

Activities:

-  **Multiplication & Division:** Speed drills and multiplication bingo sharpen fluency.
-  **Fractions & Decimals:** Using a fraction wall or coins helps children link fractions to money and real-world usage.
-  **Geometry (Angles, Perimeter, Area):** Measuring classroom objects, identifying angles in the environment, and using grid paper builds geometry skills.
-  **Data Handling:** Collecting survey data and presenting it as bar charts or pictograms encourages analytical thinking.
-  **Problem Solving:** Word problem tasks and puzzle challenges build resilience and reasoning.



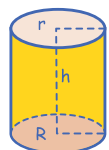
Upper Key Stage 2 – Year 5 to 6

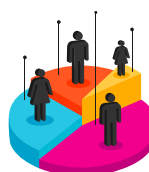
Focus: Mastering fractions, decimals, percentages, ratio, and problem solving in real-life contexts.

Activities:

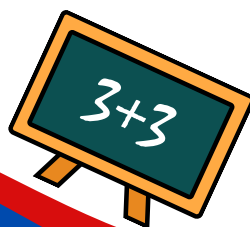
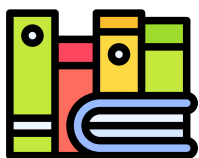
 **Fractions, Decimals, Percentages:** Budgeting and shopping role plays develop skills in applying discounts and comparing values.

 **Ratio & Proportion:** Scaling recipes or maps shows how ratio applies in everyday scenarios.

 **Geometry (Symmetry, Transformations, Volume):** Mirror symmetry drawing and 3D shape nets reinforce visualization and spatial awareness.

 **Statistics & Graphs:** Creating line graphs from science experiments and interpreting real-world data builds cross-subject connections.

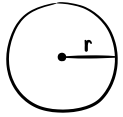
 **Exam Prep & Reasoning:** Quizzes and timed activities strengthen focus, accuracy, and test readiness.



Key Stage 3 – Year 7 to 8

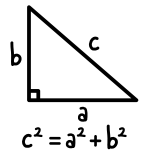
Focus: Preparing students for GCSE/IGCSE with algebra, geometry, probability, and reasoning.

Activities:



$$A = \pi r^2$$

◦ **Algebra (Expressions, Equations, Sequences):** Puzzle-based algebra tasks, number pattern investigations, and real-life problem-solving scenarios to strengthen abstract thinking.

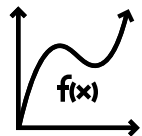


◦ **Geometry (Circles, Pythagoras, Trigonometry):**

Practical measuring (e.g., applying Pythagoras outdoors with tape) connects math to the real world.



◦ **Probability & Statistics:** Dice and card experiments illustrate probability, while tree diagrams build systematic reasoning.



◦ **Graphs & Function:** Plotting linear and quadratic graphs, interpreting distance-time graphs, and linking mathematics with science.



◦ **Exam Prep & Reasoning:** Quizzes, past-paper style questions, and timed practice activities to strengthen accuracy, speed, and exam confidence.

How Parents Can Support Math Learning at Home?

• Build Everyday Number Confidence

- Ask them to add up items while grocery shopping.
- Let them handle change and calculate how much money is left.
- Involve them in measuring ingredients while cooking.

• Encourage Problem-Solving

- Puzzles, Sudoku, and math board games like Monopoly.
- Ask them to estimate: "How many steps do you think it will take to get to the kitchen?"
- Ask them to plan how many slices of pizza each person gets.

• Connect Math to Daily Life

- Read bus timetables or flight schedules together.
- Compare discounts while shopping.
- Use maps and ask about distances: "If we walk 2 km each day, how far in a week?"