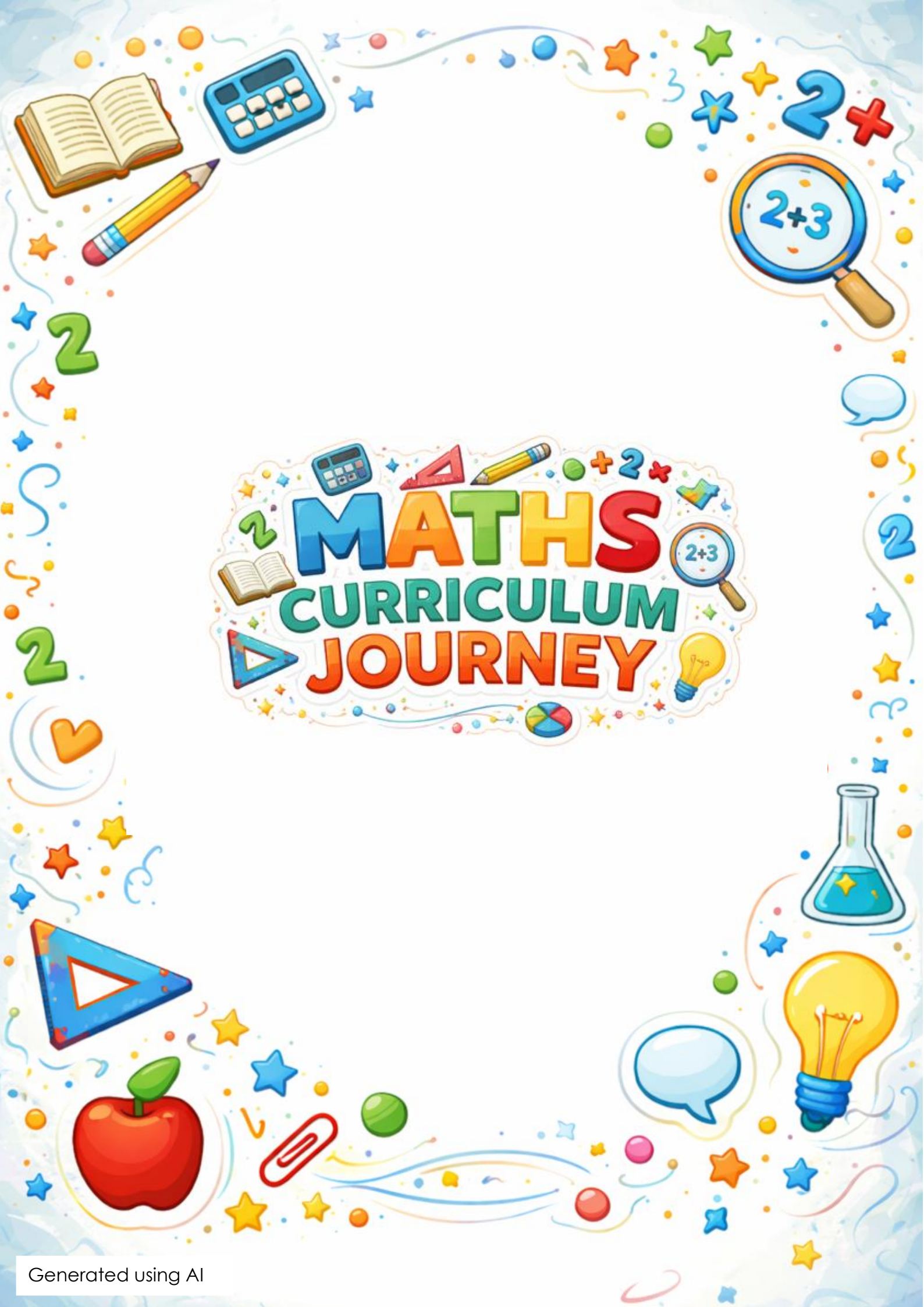

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The 7 Areas of Development in the EYFS

Early Years Foundation Stage

Prime Areas

Communication & Language
Listening & Speaking

Physical Development
Moving & Handling

PSED – Physical, Social and Emotional Development

Specific Areas

Literacy
Reading & Writing

Mathematics
Numbers & Patterns

Understanding the World
People & Nature

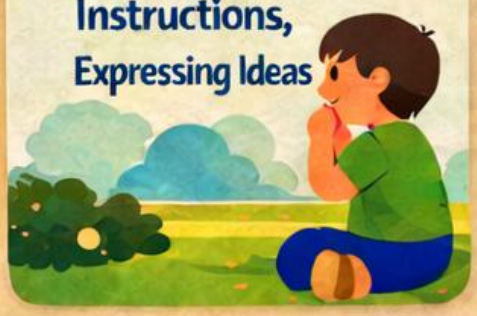
Expressive Arts & Design
Art & Imagination

Key Early Learning Goals at Age 5

Assessing School Readiness

Communication

Listening, Following Instructions, Expressing Ideas



PSED

Cooperation, Resilience, Managing Emotions

Physical

Coordination & Handling Tools Handwriting

Literacy

Reading & Writing Sentences

Math

Counting & Simple Addition

Understanding the World

Similarities & Differences

Expressive Arts

Role Play & Creative Activities

Characteristics of Effective Learning

A **Active Learning**
Motivation & Persistence

B **Playing & Exploring**
Curiosity & Experience

C **Creative and Critical Thinking**
Problem Solving & Ideas

Maths in Years 1–2

Building Confidence with Numbers!

Number & Place Value

- Count to 100
- Tens and Ones

  54 = 50 + 4
- Numbers to 100

Addition & Subtraction

8 + 5 = 13

37 – 15 = 22

Check: 22 + 15 = 37

Multiplication & Division

- 2 × 5 = 10
- 10 ÷ 2 = 5
- Group in equal sets

Fractions

$\frac{1}{2}$

$\frac{1}{3}$

$\frac{1}{4}$

Geometry – Shapes & Position

- 2D Shapes

- 3D Shapes

- Left & Right

Statistics

Measurement

- Length – use a ruler
- Mass – light / heavy
- Time – o'clock & half past

By the end of Year 2...

- ✓ Count, Add, Subtract
- ✓ Know Timetables
- ✓ Use Fractions
- ✓ Measure & Tell Time
- ✓ Collect Data

Ready for Future Maths Learning!

Maths in Years 3–4

Growing Skills & Confidence with Numbers!

Overall Focus

- Use whole numbers confidently and understand place value
- Become fluent in the **four operations**
- Solve problems involving **fractions,** decimals and measures
- Reason mathematically about **shapes,** patterns and data
- Use and spell mathematical vocabulary accurately

Number & Place Value

- Numbers up to and beyond **10,000**
- Thousands, hundreds, tens and ones
- Negative numbers
- Round to **10, 100** and **1,000**
- Roman numerals to **1,000**
- Tenths and hundredths

Number & Place Value

- Numbers up to and beyond **10,000**
- Thousands, hundreds, tens and ones
- Negative numbers
- Round to **10, 100** and **1,000**
- Roman numerals to **1,000**
- Tenths and hundredths

Measurement

- Convert between units (km–m, hours–minutes)
- Measure perimeter and area
- Use money including decimals
- Read time on 12–and 24-hour clocks

Addition & Subtraction

- Add and subtract **3–and 4–digit** numbers
- Use column methods
- Estimate and check answers
- Solve one-step and two-step word problems

Multiplication & Division

- Times tables up to **12 × 12**
- Multiply 2–and 3–digit numbers by 1 digit
- Factor pairs
- Commutativity and distributive law
- Scaling and sharing problems

Geometry

- Identify and classify 2D and 3D shapes
- Understand angles (acute, obtuse, right)
- Recognise symmetry

By the end of Year 4, children should be able to:

- ✓ Work fluently with numbers, decimals and fractions
- ✓ Recall timetables up to **12 × 12**
- ✓ Use all four operations
- ✓ Measure, convert and calculate time, money, length and area
- ✓ Describe shapes, symmetry and position

Maths in Years 5–6

Building Confidence with Advanced Maths!

In Years 5 and 6, pupils deepen their understanding of the number system, solve complex problems, and make links between **fractions, decimals, percentages and ratio.** They also use **algebra and reason mathematically**

Year 5 focus

Number & Place Value

- Read, write, compare and order numbers to 10,000,000
- Use negative numbers, rounding to check and estimate
- Read Roman numerals to 1,000 (M)

Addition & Subtraction

- Add/subtract numbers with more than 4 digits
- Use mental methods, rounding to check accuracy
- Solve multistep problems, choosing suitable methods.

Fractions, Decimals & Percentages

- Equivalent **fractions**, improper/mixed numbers
- Add/subtract related denominators
- Multiply proper fractions, divide fractions by whole numbers
- Compare to 3 decimal places

Measurement

- Identify 3D Shapes from 2D drawings
- Measure/draw angles in degrees, using protractor,
- Use rectangle properties, classify regular/irregular Find pairs satisfying equations

Position & Direction

- Describe translations
- Describe reflections on grids (shape congruency)

Year 6 focus

Number & Place Value

- Read, write, order and compare numbers to 10,000,000
- Round numbers to any required accuracy
- Count forwards and backwards in steps of of powers of 10 and intervals across 0

Four Operations

- Multiply fractions up to 4-digit × 2-digit
- Long division up to 4-digit = 2-digit
- Add/subtract fractions with mixed denominators
- Multiply fractions and decimals up to 3 decimal places
- Use efficient mental arithmetic
- Use order of operations

Fractions, Decimals & Percentages

- **Simplify fractions** and find common
- Add/subtract fractions with mixed denominators
- Multiply fractions and decimals
- Use efficient mental arithmetic
- Use order of operations

Algebra

- Use simple formulae
- Generate And Describe Number Sequences
- Express Missing Numbers With Symbols
- Find pairs Satisfying Equations

Statistics

- Read And Interpret Line Graphs
- Read And Interpret Pie Charts

By the end of Year 6, pupils should be confident:

- ✓ **Be Fluent problem-solvers** who Can Use efficient Written and mental methods
- ✓ Handle fractions/Decimals/Percentages and Ratio,
- ✓ Apply algebraic thinking, and reason clearly about **measures,** geometry and data

Maths in Years 7–9

Growing Fluent, Flexible Problem-Solvers!

Key Stage 3 builds on primary mathematics and helps pupils become confident problem-solvers who can move fluently between numbers, algebra, graphs and real-world contexts.

Overall Aims

- Understand and use numbers, including fractions, decimals, percentages and ratio
- Use algebra to represent patterns and solve problems
- Reason logically and justify mathematical thinking
- Solve multi-step problems
- Choose efficient methods when solving unfamiliar problems

Algebra

- Use letters and symbols to represent numbers
- Simplify expressions and expand brackets
- Solve linear equations and inequalities
- Rearrange formulae
- Generate and describe number sequences
- Plot and interpret graphs

Ratio, Proportion and Rates,

- Use ratios and scale factors
- Solve percentage increase and decrease problems
- Work with direct and inverse proportion.
- Use speed, density and unit pricing
- Compare quantities using ratios and fractions

Geometry and Measures,

- Calculate perimeter, area and volume
- Use properties of angles, triangles and polygons
- Work with parallel lines and angle rules
- Understand transformations
- Explore 3D shapes and their properties.

By the end of Key Stage 3, pupils should:

- ✓ Be fluent with numbers, algebra and graphs
- ✓ Solve multi-step and real-life problems
- ✓ Reason mathematically and justify their thinking
- ✓ Use algebra, geometry and data with confidence

Maths at GCSE

Solving Problems Confidently and Fluently!

Years 10 and 11 bring GCSE Maths, where pupils deepen their understanding and solve challenging, unfamiliar problems. They learn to **think logically, reason mathematically and** apply their **knowledge across topics.**

Develop Fluency

- Consolidate numerical and mathematical skills from Key Stage 3
- Work with powers, roots and fractional indices
- Simplify exact calculations
- Use calculators accurately and efficiently
- Switch between numerical, algebraic and graphical representations
- Perform efficient mental maths methods

Reason Mathematically

- Extend knowledge of ratio, proportion and trigonometry
- Use logical reasoning to analyse mathematical relationships
- Identify variables and express relationships algebraically
- Interpret mathematical structures and patterns
- Justify solutions and explain thinking

Solve Problems

- Develop strategies for solving unfamiliar problems
- Apply knowledge to real-life situations
- Break problems into manageable steps
- Model situations mathematically
- Interpret and draw graphs

Algebra

- Simplify and manipulate algebraic expressions
- Solve equations and inequalities
- Work with sequences and functions
- Use algebraic methods to model situations

Geometry and Measures

- Calculate perimeter, area and volume of shapes
- Apply angle rules and geometric properties
- Work with transformations and coordinates
- Use trigonometry in right-angled triangles

Probability and Statistics

- **Interpret and construct charts and graphs**
- Analyse and compare data sets
- Calculate **averages** and spread **of data**
- Understand probability and outcomes

By the End of Key Stage 4, Pupils Can:

- ✓ Solve complex multi-step problems
- ✓ Reason mathematically and justify solutions
- ✓ **Apply algebra,** geometry and statistics confidently
- ✓ Communicate mathematical ideas clearly

GCSE Maths is a vital **stepping-stone** for further study in **maths, science, technology, or finance, leading to A-Levels and beyond.**

CAREERS THAT NEED MATHS

Key jobs requiring strong maths skills:

ENGINEER

SCIENTIST

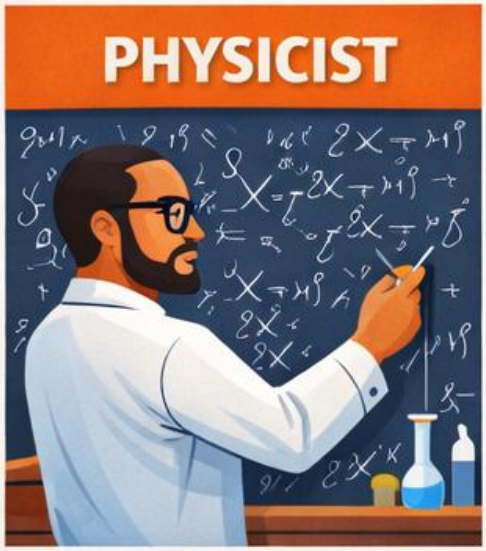
ECONOMIST

DATA ANALYST

FINANCIAL ANALYST

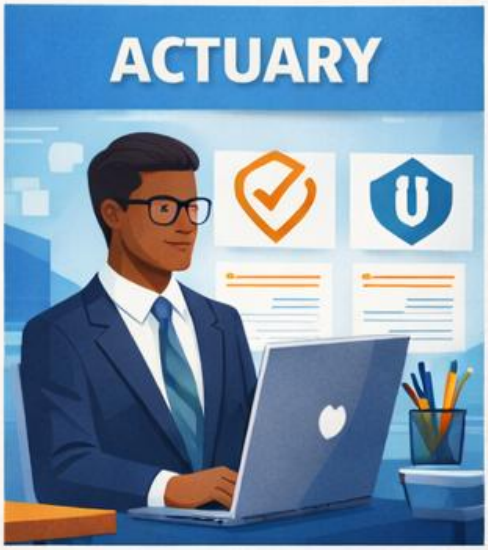
PROGRAMMER

PHYSICIST



MEDICINE

ACTUARY



AND MANY MORE!


2+3