Bredon Hill Academy

LEARNING TOGETHER FOR SUCCESS

Mathematics

What we are doing

Our overall aim is to produce the best mathematicians that we can, who enjoy mathematics and can see the relevance of it in their lives.

We aim to prepare them for their future studies at High School.

Mathematics

BHA

5

Number
- Place Value
- Addition, Subtraction

Statistics

Number
- Multiplication and Division

Measurement
- Perimeter and Area

Number
- Fractions

Number
- Decimals
- Percentages

Geometry
- Properties of Shape

Geometry
- Position and Direction

Measurement
- Converting Units
- Volume

Application of Number
- Order of Operations

Fractional Thinking
- Addition and subtraction with fractions $\frac{6}{10} + 0.3$

6

Statistics

Geometry
- Properties of Shape

Measurement
- Converting Units
- Perimeter, Area and Volume

Number
- Decimals
- Percentages

Geometry
- Position and Direction

Number
- Place Value
- Addition, Subtraction, Multiplication and Division
- Factors, Multiples and Primes
- Fractions

Number
- Ratio

Number
- Algebra

Algebraic Thinking
- Sequences

Place Value and Proportion
- Place value
- Fraction, decimal and percentage equivalence

Application of Number
- Solving problems with addition and subtraction
- Multiplication and division

Directed Number
- Four operations with directed number

Algebraic Thinking
- Understand and use algebraic notation
- Equality and equivalence

7

Developing Number
- Fractions, decimals & percentages

Algebraic Techniques
- Brackets & equations
- Sequences

Representations
- Representing Data
- Measures of location

Proportional Reasoning
- Ratio and scale
- Multiplicative change
- Multiplying and dividing fractions $\frac{5}{9} \div \frac{2}{3} = \frac{5}{6}$

Lines and Angles
- Developing geometric reasoning

Application of Number
- Fractions and percentages of amounts

8

Developing Geometry
- Angles in parallel lines and polygons

Algebraic Techniques
- Indices $(x^2)^3$

Representations
- Working in the cartesian plane

Developing Geometry
- Line symmetry & reflection

Developing Geometry
- Area of trapezia and circles

Reasoning with Number
- Sets and probability

Reasoning with Number
- Prime numbers and proof

Lines and Angles
- Constructing, measuring and using geometric notation

Algebraic Techniques
- Equations $4x + 3 = 19$

9

Working towards mastery — Year 9

Surface — GCSE Mathematics

Understanding: Define, Recognise, Identify

Fluency: Apply, Calculate, Solve

Reasoning: Compare, Describe, Explain

Deep: Problem Solving — Solve complex multi-stage problems

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What we are doing

In lessons

- Covering Y6 curriculum – all classes learning the same content
- Building on prior knowledge
- Retrieval
- Developing the mastery style of teaching with instant feedback
- Regular formative assessment in every lesson
- Regular summative assessment – end of each unit

- Developing confidence and resilience

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What we are doing

In lessons

- SATs preparation (May 2026)
- Regular arithmetic practice
- Regular reasoning practice
- Regular full SAT paper practice

- Developing confidence and resilience

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What we are doing

Interventions

- Form-time maths intervention – small group – 5 weeks
- Girls' maths club
- TTRS Friday group
- Problem solving club – later in year
- SATs Bootcamp – form-time – later in year

What we are doing

Extra-curricular opportunities

- TTRockstars Club
- Turing Tumble Club
- Maths Clinic

Other

- Form-time maths activities in form group

How can you help?

Mathematics Matters!

- Be as positive as possible about mathematics
- We all have different experiences of maths (particularly at school)
- Let them have their own experiences instead of reliving yours
- It is OK to not remember (or know) how to do something – we can help them

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How can you help?

- Help them improve their fluency in maths by practising:

    - number facts such as number bonds to 10, 20, 50, 100 etc
    - Number facts such as 7 + 8 = 15
    - Doubling and halving especially numbers such as 30, 70, 90 and odd numbers
    - Telling the time – how many minutes is it until/since….
    - Using cash to pay for items
    - Times tables

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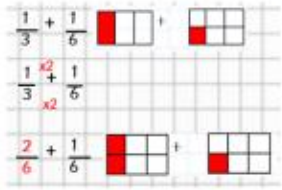
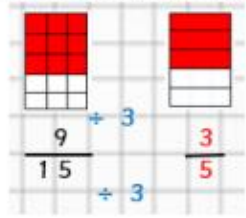
Adding, subtracting, multiplying and dividing fractions

$\frac{3}{4} \times \frac{2}{3} = \frac{6}{12}$

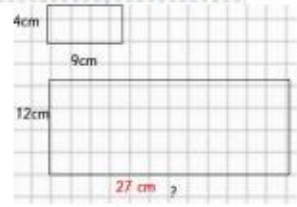


Simplifying fractions



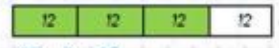
Using scale factors

2 people	1 person	5 people
6 eggs	6 ÷ 2 = 3 eggs	3 x 5 = 15 eggs
100g flour	100 ÷ 2 = 50g	50 x 5 = 250g



Finding a fraction or a percentage of a number

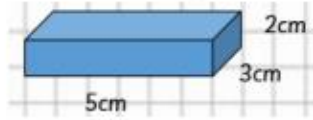
$\frac{3}{4}$ of 48



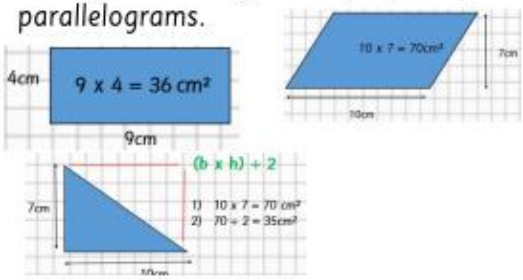
48 ÷ 4 = 12
dividing by 4 finds one quarter.

12 x 3 = 36
multiplying by 3 finds 3 quarters

Calculating volume



Finding the area of rectangles, triangles and parallelograms.



Calculating ratio

A prize is shared in a ratio of 3 : 4 between Jamie and Dan. If Jamie gets £21, how much will Dan get?

x 7 Jamie : Dan
3 : 4
21 : 28 x 7

Using known facts

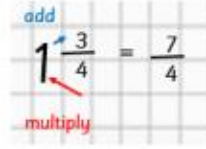
If 3 x 2 = 6, then
3 x 20 = 60
30 x 2 = 60
30 x 20 = 600

Using algebraic rules

1st term:	5	x	1	-	4	= 1
2nd term:	5	x	2	-	4	= 6
3rd term:	5	x	3	-	4	= 11
4th term:	5	x	4	-	4	= 16
5th term:	5	x	5	-	4	= 21

Why are times tables useful?

Converting between mixed and improper fractions



Convert between miles and kilometres

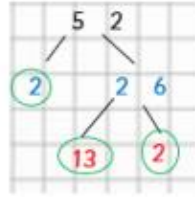
To convert km to miles:

5 miles = 8km
30 miles = 48km

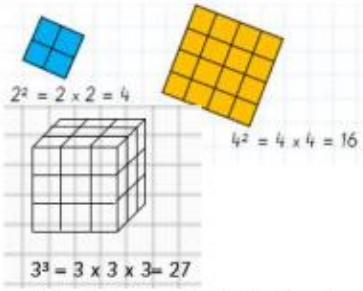
1) Divide by 8 (48 ÷ 8=6)
2) Multiply by 5 (6 x 5 = 30)

Short and long division

Finding prime factors

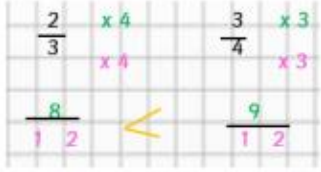


Square and cube numbers



Factors and common factors

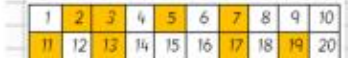
Ordering and comparing fractions



Finding equivalent fractions

Identifying prime and composite numbers

A prime number is a whole number greater than 1 with no divisors except 1 and itself.

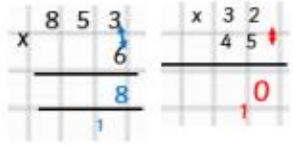


Multiples and common multiples

Multiples of 3: 3, 6, 9, 12, 18, 21, 24

Multiples of 4: 4, 8, 12, 16, 20, 24, 28, 32

Short and long multiplication



How can you help?

- Encourage use of maths at home:

    - Shopping
    - Cooking
    - Travelling
    - Bills – Money!
    - Weather
    - Naming shapes
    - Reading data from graphs
    - Drawing and measuring lines with a ruler

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How can you help?

- Help us build their resilience:
    - Calm, quiet place to work with no noise
    - No distractions whilst working
    - Encourage them to stay ‘on task’ for periods of time
    - Encourage them to complete homework on time
    - Support them with any test review we ask them to do

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How can you help?

- Help us build their resilience:
    - Let them know it is OK to make mistakes
    - Praise them for effort rather than ‘being clever’

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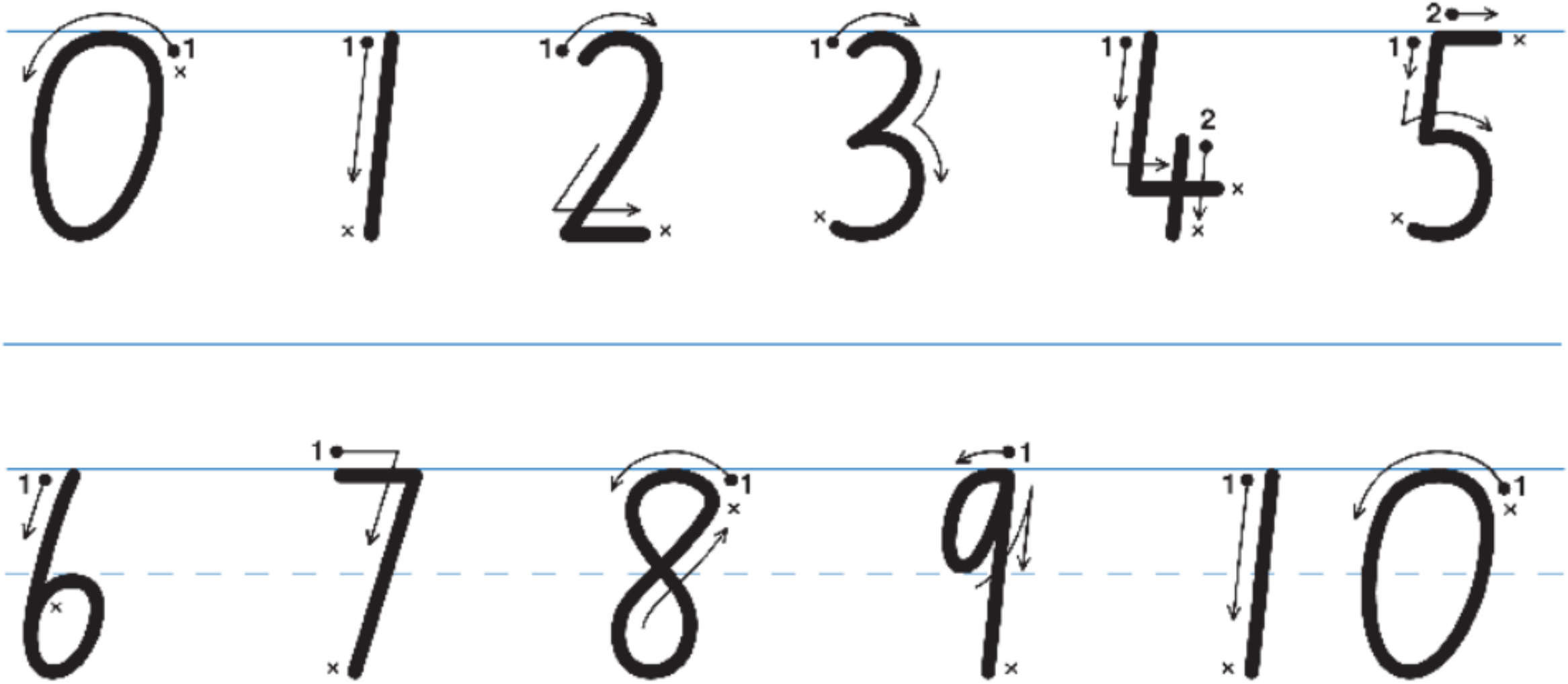
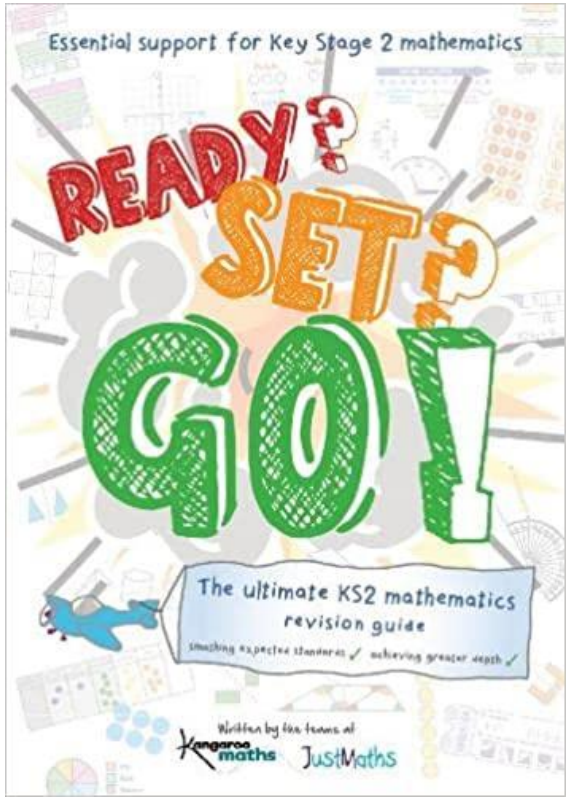
Forming Digits



How can you help?

- Purchase revision guide
- £5.50



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How can you help?

WEBSITES FOR PUPILS:

- TT Rockstars
- SATs Boot Camp
- Numeracy Workout

sats boot camp

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