



Mathematics

At Fawkham CEP School



INTENT:

At Fawkham, we provide a creative and highly inter-connected maths curriculum through the use of White Rose Maths (WRM).

We have chosen to use WRM as it embeds challenge and mastery for all children within all lessons. Mixed age planning is embedded within the scheme which ensures thorough coverage for our mixed age classes. All lessons provide challenge for all children at all levels to ensure that mastery is achieved by all.

Here at Fawkham, manipulatives are used at every opportunity both to teach the concept and prove answers through reasoning because our children can find it difficult to explain their understanding of concepts due to the fact that historically they have learnt by rote, often influenced by parents supporting their children with homework.

At Fawkham, our exceptional mathematicians are exposed to the mathematical content of the higher year group within their class to ensure challenge. Our exceptional mathematicians within the higher year groups are further extended through challenge tasks and peer mentoring.

We have chosen to WRM as it ensures that place value is covered at the beginning of every year to secure the foundations of mathematics before moving on to number. This ensures that children have a good understanding of number before moving on to learn about measurement, statistics and geometry. This ensures that children can confidently apply their knowledge of number to answer questions about measurement, statistics and geometry. In addition, we have chosen to use WRM as it ensures that children explore each area of maths to a great depth and breadth as each topic is covered over several weeks to ensure mastery before moving on.

However, we ensure that maths at Fawkham is embedded into children's long-term memory by building opportunity to briefly revisit areas during starters or early morning work.

We make sure to implement a maths curriculum that is ambitious through its use of challenge within every lesson and that gives children the knowledge and cultural capital they need to succeed. We do this by ensuring maths is relevant and linked to children's everyday lives by making cross-curricular links where appropriate.

Despite following the WRM scheme, we do regularly adapt our plans to meet the needs of children through continuous of-the-moment formative assessments (perhaps by extending the amount of time focusing on an area of learning if it is not yet mastered, or moving children on sooner if necessary).

Dormice (R)

Reception - Notes and guidance



Autumn Progression

Number and Place Value Numbers to 5

→ One, two, three

→ Four

→ Five

Addition and Subtraction Sorting

→ Sorting into groups

Number and Place Value Comparing groups

→ Comparing quantities of identical objects

Comparing quantities of non-identical objects

Addition and Subtraction Change within 5

→ One more

→ One less

Measurement Time

→ My day

Reception - Notes and guidance



Spring Progression

Addition and Subtraction Numbers to 5

→ Number bonds to 5

Number and Place Value Numbers to 10

→ Counting to 6, 7 and 8

→ Counting to 9 and 10

→ Comparing groups up to 10

Addition and Subtraction Addition to 10

→ Combining two groups to find the whole

→ Number bonds to 10 - ten frame

→ Number bonds to 10 - part-whole model

Geometry Shape and space

→ Spatial awareness

3-D shapes

2-D shapes



Summer Progression

- Geometry** Exploring patterns
 - Making simple patterns
 - Exploring more complex patterns
- Addition and Subtraction** Count on and back
 - Adding by counting on
 - Taking away by counting back
- Number and Place Value** Numbers to 20
 - Counting to 20
- Multiplication and Division** Numerical patterns
 - Doubling
 - Halving and sharing
 - Odds and evens
- Measurement** Measure
 - Length, height and distance
 - Weight
 - Capacity

Hedgehogs (1/2)

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|--------|--|----------------------|---|---------------------------------------|-----------------------------------|---|--------|--------|---|---------|---------------|---------|
| Autumn | Number: Place Value Y1 - Numbers to 20 Y2 - Numbers to 100 | | Number: Addition and Subtraction Year 1- Numbers within 20 (including recognising money) Year 2- Numbers within 100 (including money) | | | | | | Number: Year 1: Place Value to 50 and Multiplication Year 2: Multiplication | | | |
| Spring | Number: Year 1: Division & consolidation Year 2: Division | | Year 1: Place Value to 100 Year 2: Statistics | | Measurement: Length and Height | Geometry: Year 1: Shape and Consolidation Year 2: Properties of Shape | | | Number: Year 1: Fractions and Consolidation Year 2: Fractions | | Consolidation | |
| Summer | Geometry: Position and Direction | Measurement: Time | | Problem solving and efficient methods | | Measurement: Year 1: Weight and Volume Year 2: Mass, Capacity and Temperature | | | Consolidation and Investigations | | | |

Badgers (3/4)

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|--------|-------------------------------------|--------|---|----------------------------------|-------------------|------------|--------|---|------------------------------------|---------|---------------|---------------|
| Autumn | Number: Place Value | | | Number: Addition and Subtraction | | | | Number: Multiplication and Division | | | | |
| Spring | Number: Multiplication and Division | | Measurement: Length, Perimeter and Area | | Number: Fractions | | | | Y3: Measurement: Mass and Capacity | | Consolidation | |
| | | | | | | | | Y4: Number: Decimals | | | | |
| Summer | Number: Decimals (including Money) | | | Measurement: Time | | Statistics | | Geometry: Properties of Shape (including Y4 Position and Direction) | | | | Consolidation |

Squirrels (5/6)

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|--------|----------------------------------|--------|----------------------------------|----------------------|-------------------|----------------------------------|---|--------|-------------------|---------|------------|---------|
| Autumn | Number: Place Value | | Number: Four Operations | | | | Number: Fractions | | | | | |
| Spring | Number: Decimals and Percentages | | | Y5: Number: Decimals | | Measurement: Converting Units | Measurement: Perimeter, Area and Volume | | Y5: Consolidation | | Statistics | |
| | | | Y6: Number: Algebra | | Y6: Number: Ratio | | | | | | | |
| Summer | Geometry: Properties of Shape | | Geometry: Position and Direction | Y6: SATS | | Investigations and Consolidation | | | | | | |

| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|-----------------|--|---|---|--|---|---|
| Year R | Place Value (to 5) Addition and Subtraction Measurement (time) | | Addition and Subtraction Place Value (to 10) Geometry (shape and space) | | Geometry (patterns) Addition and subtraction Place Value (to 20) Multiplication and Division (double/half) Measurement (L, H, D, C, W) Consolidation | |
| Year 1/2 | Place Value Numbers within 20/100 (including money) Addition and Subtraction | Numbers within 50/100 (including money) Addition and Subtraction Multiplication | Division Place Value (to 100) Statistics Measurement (L&H) Geometry (shape) | Geometry (properties of shapes) Fractions | Geometry (position and direction) Measurement (time) Problem solving | Measurement (weight, volume, mass, capacity, temperature) Consolidation and revision |
| Year 3/4 | Place Value Addition and Subtraction | Addition and Subtraction Multiplication and Division | Multiplication and Division Measurement (L,P,A) Fractions | Fractions Measurement (mass and capacity) Decimals | Decimals (including money) Measurement (time) Statistics | Geometry (properties of shape, position and direction) Consolidation |
| Year 5/6 | Place Value Four operations | Four operations Fractions Decimals and percentages | Decimals and percentages Algebra Measurement (converting) | Measurement (P, A, V) Ratio Statistics | Geometry (properties of shape, position and direction) Revision | Investigations and consolidation |