# Our Approach to the Mathematics Curriculum

## Discover    Learn    Develop



| DISCOVER | LEARN | DEVELOP |
|---|---|---|
| INTENT:<br>Curriculum Design, Coverage and Appropriateness<br>(Policy, Culture, Scope) | IMPLEMENTATION:<br>Curriculum delivery, Teaching and Assessment<br>(Pedagogy, Components , Sequencing) | IMPACT:<br>Attainment and Progress<br>(Memory, Assessment, Systems) |
| Our aim at St.Kew is to deliver an inspiring and engaging mathematics curriculum through high quality teaching, enabling the children here to be numerate, creative, independent, inquisitive, enquiring and confident. We endeavour to ensure that children develop a positive and enthusiastic attitude towards mathematics that will stay with them throughout their lives. We have high academic expectations and aim to provide children with mathematical skills for daily life. Our mastery approach allows children to develop a deep understanding of mathematics. Children will cumulatively build skills, knowledge and understanding via a carefully sequenced curriculum which provides opportunities for children to revisit learning. Long- and medium-term plans will ensure clear progression in key skills in line with national expectations. | Teachers plan sequences of lessons that allow children to progress in small steps enabling us to manage children's cognitive load. We provide a quality first teach experience in our daily maths lesson and aim for excellence. Well-structured lessons, organised into small steps, provide children with opportunities to: - Become fluent in number facts and methods through varied and frequent practise; - Reason mathematically by following a line of enquiry, conjecturing, justifying or generalising using mathematical language - Problem solve by applying their mathematical skills in increasingly complexity. Teachers use White Rose Maths resources to provide deep questioning which develop children's understanding and stimulate mathematical thinking. They use in-the-moment assessment techniques e.g. hinge points and modify or reframe learning in response to outcomes. Understanding is developed by providing children with a range of learning experiences using different models and contexts. Learning progresses through concrete, pictorial and abstract representations of new mathematical concepts and children are able to use appropriate manipulatives when they choose. | The high quality, mathematical experiences at St.Kew ACE Academy will produce students who are confident and competent in real life mathematical situations. They will be resilient learners who display a real enjoyment of mathematics. Pupils will be prepared to take on mathematical challenges that stretch, excite, engage, enthuse and allow them to interact with the world they inhabit. They will be prepared for their next stage of their educational journey |

**LEARNING TO LEARN SKILLS**

At St Kew, we are passionate about active learning and believe that children learn and develop best by 'doing'. Learning is a life-long experience and our 'learning to learn skills' help pupils to investigate and experience things, 'have a go', concentrate and keep on trying if they encounter difficulties, enjoy achievements, have and develop their own ideas, make links between these ideas, and develop strategies for doing things. This builds a foundation for igniting their curiosity and enthusiasm for learning.  In [subject], all Learning to Learn skills are used but the following skills are utilised in particular.

| READINESS | RESPONSIBILITY | RELATIONSHIPS | RESILIENCE | RESOURCEFULNESS | REFLECTIVENESS |
|---|---|---|---|---|---|
| I ensure I have everything I need. | I am involved and can concentrate. | I can give and receive feedback. | I keep on trying when I face a challenge. | I know which resources are appropriate to support my learning and use these effectively. | I can think of next steps in my work. |

## Rolling Programme



## St Kew Academy Long Term Maths Plan                                             Year R & 1 Mixed Age Planning

| Wk no. | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | Wk 11 | Wk 12 | Wk 13 | Wk 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yr R<br>Autumn Term | Baseline | | Baseline | Number 0 | Numbers 1 and 2 | | Number 3<br>2d shapes | | Number 4<br>2d shapes | Number 5<br>Measure | Number 6<br>Measure | Number 7<br>Measure | Number 8<br>Assessments/filling in the gaps | |

| Yr 1 Autumn Term | Place Value (Within 20) | Place Value (Within 20) | Addition and subtraction (within 10) | Addition and subtraction (within 10) | Shape (2d) | Shape (2d) | Measure Length /height | Measure Mass/ weight | Measure Capacity/volume | PUMA testing, 'filling in the gaps'. |
|---|---|---|---|---|---|---|---|---|---|---|

| Wk no. | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | Wk 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Yr R Spring Term | Numbers 9 and 10 Addition and subtraction (within 10) | | Addition and subtraction (within 10) | Number 11 | Number 12/13 More/less | | Number 14/15 3d shape | | Number 16/17 Time | | Assessment/filing the gaps |
| Yr 1 Spring Term | Addition and subtraction (within 20) | | Addition and subtraction (within 20) | Place Value (up to 50) | Place Value (up to 50) | | Shape 3d | | Measurement – length - Time | | PUMA/assessments/filling the gaps |

| Wk no. | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | Wk 11 | Wk 12 | Wk 13 | Wk 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yr R Summer Term | Numbers 18/19 | | Number 20 | Number consolidation/intervention | Addition and subtraction More/less | Position | | Doubling/ halving and sharing | | Doubling/ halving and sharing | | Money | Assessment Filling the gaps/GD | Assessment Filling the gaps/GD |
| Yr 1 Summer Term | Place Value (to 100) | | Place Value (to 100) | Multiplication and division | Multiplication and division | Position /Direction | | Fractions | | Fractions | | Money | Money | PUMA/assessments/filling the gaps |

St Kew Academy Long Term Maths Plan                                             Year 2 & 3 Mixed Age Planning

| Wk no. | Wk x | | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | Wk 11 | Wk 12 | Wk 13 | Wk 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yr 2 Autumn Term | Maths Challenge Assess | | Place Value | | Addition and Subtraction | | Multiplication and division | | Fractions | | Measurement – length, mass, money | | Data Handling | Properties of Shape | | |
| Yr 3 Autumn Term | Maths Challenge Assess | | Place Value | | Addition and Subtraction- Mental strategies | | Multiplication and division | | Fractions | | Measurement – length - Time | | Data Handling | Shape | | |

| Wk no. | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | Wk 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Yr 2 Spring Term | Place Value | | Addition and Subtraction | | Multiplication and division | | Fractions | | Measurement – length, mass, money | | Data Handling |
| Yr 3 Spring Term | Place Value | | Addition and Subtraction- Mental strategies | | Multiplication and division | | Fractions | | Measurement – length - Time | | Data Handling |

| Wk no. | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | Wk 11 | Wk 12 | Wk 13 | Wk 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yr 2 Summer Term | Place Value | | Addition and Subtraction | | Multiplication and division | | Fractions | | | Measurement – length, mass, money | | Data Handling | Properties of Shape | Revisit Gap Filling | |
| Yr 3 Summer Term | Place Value | | Addition and Subtraction- Mental strategies | | Multiplication and division | | Fractions | | | Measurement – length - Time | | Data Handling | Shape | Revisit Gap Filling | |



# St Kew Academy Long Term Maths Plan                    Year 4, 5 & 6 Mixed Age Planning

| Wk no. | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | Wk 11 | Wk 12 | Wk 13 | Wk 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yr 4 Autumn Term | Place Value including Roman Numerals | | Addition and Subtraction | | Multiplication and Division | | Fractions and decimals | | | Geometry - Properties of Shape Measures – money and perimeter | | | Data Handling | |
| Yr 5 Autumn Term | Place Value including Roman Numerals | | Addition and Subtraction | | Multiplication and Division | | Fractions, Decimals and Percentages | | | Geometry - Properties of Shape Measures  -  perimeter | | | Data Handling | |
| Yr 6 Autumn Term | Place value including Roman Numerals and  Algebra | | Addition and Subtraction | | Multiplication and Division | | Fractions, Decimals and Percentages | | | Geometry - Properties of Shape Measures  -  perimeter | | | Data Handling | |

| Wk no. | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | Wk 11 | Wk 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yr 4 Spring Term | Place Value (Including negative numbers and rounding) | | Addition and Subtraction | | Multiplication and Division | | Fractions and Decimals | | | Geometry -Properties of Shape – angles Measures – area and time | | Data Handling |
| Yr 5 Spring Term | Place Value (Including negative numbers and rounding) | | Addition and Subtraction | | Multiplication and Division | | Fractions, Decimals and Percentages | | | Geometry -Properties of shape - angles Measurement – area and  volume | | Data Handling – time tables |
| Yr 6 Spring Term | Place value (Including negative numbers and rounding) | | Addition and Subtraction including algebra | | Multiplication and Division including algebra | | Fractions, Decimals Percentages and Ratio | | | Geometry – angles Measurement – area and volume | | Data Handling |

| Wk no. | Wk 1 | Wk 2 | Wk 3 | Wk 4 | Wk 5 | Wk 6 | Wk 7 | Wk 8 | Wk 9 | Wk 10 | Wk 11 | Wk 12 | Wk 13 | Wk 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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|---|---|---|---|---|---|---|---|
| Yr 4<br><br>Summer Term | Place Value (including problem solving) | Addition and<br><br>Subtraction | Multiplication and<br><br>division | Fractions, Decimals and Percentages | Measurement – length, mass and volume | Data Handling | Geometry – position and movement | Revisit<br><br>Gap Filling |
| Yr 5<br><br>Summer Term | Place Value (including problem solving) | Addition and<br><br>Subtraction | Multiplication and<br><br>division | Fractions, Decimals and Percentages | Measurement –length, mass and volume | Data Handling | Properties of<br><br>Shape – position and movement | Revisit<br><br>Gap Filling |
| Yr 6<br><br>Summer Term | Place value<br><br>(including problem solving and algebra) | Addition and<br><br>Subtraction | Multiplication and<br><br>division | Fractions, Decimals, Percentages and ratio | Measurement –length, mass and volume | Data Handling | Properties of<br><br>Shape – position and movement including algebra | Revisit<br><br>Gap Filling |

| Mathematics Skills Progression |
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Please see the documents for Skills Progression in our 'Calculations Policy'