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| **Intent**  The 2014 National Curriculum for Maths aims to ensure that all children:  Become fluent in the fundamentals of Mathematics  Are able to reason mathematically  Can solve problems by applying their Mathematics  At Kingsley CP, these skills are embedded within Maths lessons and developed consistently over time. We are committed to ensuring that children are able to recognise the importance of Maths in the wider world and that they are also able to use their mathematical skills and knowledge confidently in their lives in a range of different contexts. We want all children to enjoy Mathematics and to experience success in the subject, with the ability to reason mathematically. We are committed to developing children’s curiosity about the subject, as well as an appreciation of the beauty and power of Mathematics.  **Implementation**  The content and principles underpinning the 2014 Mathematics curriculum and the Maths curriculum at Kingsley CP reflect those found in high-performing education systems internationally, particularly those of south-east Asian countries such as Singapore, Japan, South Korea and China. These principles and features characterize this approach and convey how our curriculum is implemented:  Teachers reinforce an expectation that all children are capable of achieving high standards in Mathematics.  The large majority of children progress through the curriculum content at the same pace. Differentiation is achieved by emphasising deep knowledge and through individual support and intervention.  Teaching is underpinned by methodical curriculum design and supported by carefully crafted lessons and resources to foster deep conceptual and procedural knowledge.  Practice and consolidation play a central role. Carefully designed variation within this builds fluency and understanding of underlying mathematical concepts.  Teachers use precise questioning in class to test conceptual and procedural knowledge and assess children regularly to identify those requiring intervention, so that all children keep up.  To ensure whole consistency and progression, the school uses Build-a-sequence resources by Tara Loughran. New concepts are shared within the context of an initial related problem, which children are able to discuss as a class or in partners. This initial problem-solving prompts discussion and reasoning, as well as promoting an awareness of maths in relatable real-life contexts that link to other areas of learning. In KS1, these problems are almost always presented with objects (concrete manipulatives) for children to use. Children may also use manipulatives in KS2. Teachers use careful questions to draw out childrens’ discussions and their reasoning. The class teacher then leads children through solving the problem, including those already discussed. Independent work provides the means for all children to develop the fluency further, before progressing to more complex related problems. Mathematical topics are taught in blocks, to enable the achievement of ‘mastery’ over time. Each lesson phase provides the means to achieve greater depth, with more able children being offered rich and sophisticated problems, as well as exploratory, investigative tasks, within the lesson as appropriate.  **Impact**  The school has a supportive ethos and our approaches support the children in developing their collaborative and independent skills, as well as empathy and the need to recognize the achievement of others. Regular and ongoing assessment informs teaching, as well as intervention, to support and enable the success of each child. These factors ensure that we are able to maintain high standards, with progress at the end of KS2 above the national average and a proportion of children demonstrating greater depth, at the end of each phase. |

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| **Year 1** | **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** NB- Autumn Term is 15 weeks, therefore extend Number PV within 20 strand to end of term | **Number: Place value (within 10)**  + and – 1  Leading to within 20 | | | | **Number: Addition and Subtraction (within 10)**  Bonds to 4, 5, 6, 7, 8, 9, 10  Language of = to, more, less than, fewer, | | | | | | **Geometry** Shape properties  2d and 3d | **Number: Place Value**  **(within 20)**  + and – 1  Identify and represent numbers using objects and pictorial representations  Number lines  Language of = to, more, less than, fewer, mostly | | |
| Include Measurement Knowledge of coins  Reasoning and problem solving | | | | | Include Measurement  Reasoning and problem solving | | | | | | Include Number Bonds  Reasoning and problem solving | Include Measurement  Reasoning and problem solving | | |
| **Spring** | **Number: Place Value**  counting in multiples of 2s, 5s, 10s | | | | | **Multiplication and Division**  Halves and doubles | | | **Addition and Subtraction**  T and O not crossing  (using prior knowledge of bonds) | | | | **Measurement**  **and comparison across all measures** | |
| Include Measurement  Knowledge of coins  Reasoning and problem solving | | | | | | Include Measurement  Reasoning and problem solving | | | Include Measurement  Reasoning and problem solving | | | | Reasoning and problem solving | |
| **Summer** | **Fractions**  Halves and Quarters | | | **Multiplication and Division**  Solve 1 step problems  Arrays | | | | **Addition and Subtraction**  Crossing tens  Addition and subtraction facts within 20  1 step number problems | | | | **Place Value**  **Partitioning** 2 digit numbers into T and O | **Geometry and Time**  O’clock  Half past |
| Include Measurement  Reasoning and problem solving | | | | | | | | Include Measurement  Reasoning and problem solving | | | | Reasoning and problem solving | |

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| **Year 2** | | | | | | | | | | | | | | |
| **Autumn**  NB- Autumn Term is 15 weeks, therefore extend Multiplication strand | **Number: Place Value**  PV of digits in TO  Partitioning numbers into T and O including other combinations  Estimate and recognise numbers on a number line  Compare and Order numbers up to 100  using > < and = | | | **Measure**  Capacity | | **Addition and Subtraction**  2 digit not crossing the boundaries2 digit both numbers are tens  2 digit + tens e.g. 43 + 30 (not crossing 100) | | | | | **Multiplication and Division**  Arrays  Commutativity  Problem Solving  Division problems | | | **Geometry**  Properties of shape 2d and 3d  Describing and comparing |
| Include Measurement  Reasoning and problem solving | | | | Include Measurement – including money  Reasoning and problem solving | | | | | | | Include Measurement  Reasoning and problem solving | | | Include Measurement  Reasoning and problem solving |
| **Spring** | **Multiplication and Division**  **Number: Place Value**  Recall of the facts 2s 3s 5s 10s  Place value – counting in 2s 3s 5s from 0  Counting in tens from any number | | | **Fractions**  Recognise and find 1/3 ¼ 2/4 ¾ of length, shape and quantity  Equivalence of ½ and 2/4 | | | | **Addition and Subtraction**  Adding 3 1 digit numbers  Subtracting 3 1 digit numbers  TO + O crossing boundaries  TO – O crossing boundaries | | **Time**  Quarter past  Quarter to | | | **Measure**  **Length** | |
| Include Measurement  Reasoning and problem solving | | | | Include Measurement  Reasoning and problem solving | | | | Include Measurement  Reasoning and problem solving | | | | | | Reasoning and problem solving |
| **Summer** | Fractions  Recognise and find 1/3 ¼ 2/4 ¾ of length, shape and quantity  Equivalence of ½ and 2/4 | **Position and Direction**  Patterns and sequences | **Multiplication and Division**  Mathematical statements for 2, 5, 10 times tables  Commutativity  Problem solving | | **Addition and Subtraction**  TO + TO to 100  TO – TO to 100 | | Statistics | | **Solve problems including**  **Addition and Subtraction**  TO + TO TO – TO | | | | | **Measurement**  Weight |
| Include Measurement  Reasoning and problem solving | | | Include  + and –  Reasoning and problem solving | | Link to time  Reasoning and problem solving | | Include Measurement  Place value of counting in 2s 5s 10s  Reasoning and problem solving | | | |  | Reasoning and Problem solving | | Reasoning and problem solving |

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| **Year 3** | | | | | | | | | | | |
| **Autumn**  NB- Autumn Term is 15 weeks, therefore extend Multiplication and Division strand to end of term | **Number: Place Value**  Recognise pv in each digit in HTO  Compare and order numbers up to 1,000  Identify represent and estimate umbers up to 1,000 | **Measurement**  Weight | | **Number: Addition and Subtraction**  (up to) 3 digit + ones  (up to) 3 digit + tens  (up to) 3 digit + hundreds  (up to) 3 digit - ones  (up to) 3 digit - tens (up to) 3 digit - hundreds  *TO+ TO crossing hundreds \*\**  *TO – TO crossing tens \*\**   * Column method not required at this point in the year | | | | | **Number: Multiplication and Division**  Count in 4s 8s 50s from 0  3x 4x 8x facts  Division facts | | |
| Include measurement – money  Reasoning and problem solving | | Include measurement – length  Reasoning and problem solving | | | | | | | Include measurement – across all contexts  Reasoning and problem solving | | |
| **Spring** | **Fractions**  Find fractions of shapes, amounts  Recognise and use fractions as numbers  Compare and order fractions  Not tenths | **Decimals**   * 1. **=** | **Geometry**  Property of 2d and 3d shape  Turns  Right angles horizontal, vertical, parallel and perpendicular lines | | | **Time**  Analogue clocks  Roman Numerals  Read and write analogue  To the nearest min  12 and 24 hr | **Addition and Subtraction**  TO+ TO crossing hundreds TO – TO crossing tens | | | **Multiplication and Division**  Division with remainders | |
| Include measurement  Reasoning and problem solving | | Reasoning and problem solving | | | | Include statistics, length money  Reasoning and problem solving | | | | Include measurement – perimeter  Reasoning and problem solving | |
| **Summer** | **Fractions**  Add and subtract fractions within 1 whole | **Addition and Subtraction**  Column method HTO + HTO  Column method HTO - HTO | | | **Measurement**  Length and Periemter | **Multiplication and Division**  TO X O  TO ÷ O | | Measurement  Capacity | | | **Statistics**  Interpret and present data using bar charts, pictograms, tables |
| Include measurement  Reasoning and problem solving | | Reasoning and problem solving | | | Reasoning and problem solving | Reasoning and problem solving | | | | | Reasoning and problem solving |

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| **Year 4** | | | | | | | | | | | | |
| **Autumn** | **Number: Place Value**  Count in 7s 9s 25s 1,000s  Find 1,000 more / less  Order and compare numbers beyond 1,000  Recognise pv of each digit in a 4 digit number  Rounding to nearest 10, 100, 1,000 | | **Measurement**  Weight | | | **Addition and Subtraction**  Mental addition and subtraction using 100s and 1000s  Using 1dp to add and subtract 4-digit columnar addition and subtrcation | | **Multiplication and Division**  Facts for 6s, 7s, 9s, 11s, 12s  X by 0 and 1  ÷ by 1  X 3 single digits together | | | | **Measurement**  Area |
| Include Measurement  Reasoning and problem solving | | | Include Measurement  Reasoning and problem solving | | | | | Include Measurement  Reasoning and problem solving | | | | |
| **Spring** | **Fractions**  Equivalent fractions  Fractions of quantities | **Fractions**  Addition and subtraction of fractions with the same denominator across 1 whole | **Decimals**  Multiplying and Dividing by 10 and 100  (explicit link to measure) | | | **Decimals**  Decimal equivalents  Rounding and comparing decimals  Recognise tenths and hundredths | | **Addition and Subtraction**  Add and subtract numbers to one decimal place | | **Time**  Roman Numerals  Read, write and convert 12 and 24Convert hours to minutes, minutes to seconds, years to months, weeks to days | **Multiplication and Division**  Factor pairs  Written methods for TO X O HTO X O  TO ÷ O inc remainders | |
| Include Measurement  Reasoning and problem solving | | | Include Measurement  Reasoning and problem solving | | | | | Reasoning and problem solving | | | | |
| **Summer** | **Geometry / Measure**  Properties of 2d and 3d shape  Area and perimeter | **Measurement**  Length | **Decimals**  Fraction and decimal equivalents  Addition and subtraction of up to 4 digits with decimals | | | | **Geometry:**  **Position and Direction**  Co-ordinates  Positions and translations | | **Place Value** Negative numbers  **Measurement** Capacity | | | **Statistics**  Bar charts  Time graphs  Time tables |
| Include Measurement including money and length  Reasoning and problem solving | | | | Reasoning and problem solving | Reasoning and problem solving | | Reasoning and problem solving | | Include Measurement  Reasoning and problem solving | | | |

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| **Year 5** | | | | | | | | | | | | | |
| **Autumn**  NB- Autumn Term is 15 weeks, therefore extend Addition and  Subtraction strand to end of term | **Number: Place value**  All strands of NC | | **Addition and Subtraction**  Mental vs written | | | **Multiplication and Division**  **Measure**  Properties of number – sq, cubed, factors, prime | | | **Multiplication and Division**  Multiplying whole numbers and decimals by 10, 100, 1,000  Converting units of **measure** | | **Multiplication and Division**  X and ÷ mentally drawing on known facts | | **Measurement** Area  Volume (Measure) | |
| Include measurement – all contexts  Reasoning and problem solving | | | Include measurement – all contexts  Reasoning and problem solving  Include use of decimals and statistics through problem solving | | | Include measurement all contexts  Reasoning and problem solving | | | Include measurement all contexts  Reasoning and problem solving | | | Include measurement all contexts  Reasoning and problem solving | | |
| **Spring** | **Fractions**  Recognising mixed numbers and improper fractions | **Fractions**  Order with denominators which are all multiples of the same number | | | **Fractions**  Add and subtract where denominators and multiples of the same number | **Multiplication and Division**  4 digit x 1 digit  2 digit x 2 digit  3 digit x 2 digit  3 digit ÷ 1 digit  4 digit ÷ 1 digit | | | | Measurement **Time**  Reading timetables | | **Position and Direction** | | |
| Include measurement – all contexts  Reasoning and problem solving | | | | | | | | | Include measurement – all contexts  Reasoning and problem solving | | | Include measurement – all contexts  Reasoning and problem solving | | |
| **Summer** | **Geometry**  Properties of 2d shape  Angles  Perimeter | **Fractions**  Multiplying proper fractions by whole numbers | | **Number: decimals**  Reading and expressing as decimals  Equivalents  Order and compare | | | **Decimals**  Addition and subtraction of mixed decimals | **Percentages** | **Statistics** | | | **Measure**  Involving all operations | | |
| Reasoning and problem solving | | Include measurement – all contexts  Reasoning and problem solving | | | | | | | Include measurement – all contexts  Reasoning and problem solving | | | Include measurement – all contexts  Reasoning and problem solving | | |

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| **Year 6** | | | | | | | | | | | | |
| **Autumn**  NB- Autumn Term is 15 weeks, therefore extend 4 ops strands | **Number: Place Value**  Revise all NC objectives | | **Addition and Subtraction**  Word problems  All methods  Revise all NC objectives | | **Multiplication and Division**  Factors, multiples, prime numbers  4 digit x 2 digit  4 digit ÷ 2 digit  BIDMAS (if secure) | | | | **Measure**  Converting units of measure | | **Measurement**  Area and Perimeter  Volume | | |
| Include measurement – all contexts  Reasoning and problem solving | | | Include measurement – all contexts  Reasoning and problem solving | | Include measurement – all contexts  Reasoning and problem solving | | | | | | Reasoning and problem solving | | |
| **Spring** | **Fractions**  Simplifying fractions  Comparing fractions  Add and subtract with different denominators  Multiplying proper fractions  Dividing proper fractions by a whole number | | | **Decimals, percentages**  Equivalents  Parts of whole shape, quantity compare and order | | **Ratio and Proportion**  Problem solving involving:  Missing values (x and ÷)  Calculation of percentages  Shapes and scale factors  Fractions and multiples | | **Statistics**  Pie charts  Line graphs  Mean, median, mode, range | | | | **Geometry:**  **Position and Direction**  Position in all 4 quadrants  **Translation**  **Reflection** | |
| Include measurement – all contexts  Reasoning and problem solving | | | | Include measurement – all contexts  Reasoning and problem solving | | Include measurement – all contexts  Reasoning and problem solving | | Include measurement – all contexts  Reasoning and problem solving | | | | Reasoning and problem solving | |
| **Summer** | **Geometry**  Properties of 2d and 3d shapes | **Algebra**  Simple formulae  Generate and describe linear sequences | **Multi-step problems**  **All contexts** | | | SATs | **Algebra**  Generate and describe linear sequences  Express missing number problems algebraically  Find pairs of numbers that satisfy an equation with 2 unknowns | | | **Properties of Number**  Revise all NC objectives | | | |
| Include measurement – all contexts  Reasoning and problem solving | | Include measurement –  all contexts  Reasoning and problem solving | Include measurement –  all contexts  Reasoning and problem solving | Include measurement – all contexts | |  | Reasoning and problem solving | | | Include measurement – all contexts  Reasoning and problem solving | | | |