Year 3 Maths Overview

The principles of Fluency, Problem Solving and Reasoning will be threaded throughout each unit.

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Autumn Consider missing number box questions (see arithmetic assessment) Answer at the start of a calculation. Balancing calculations with missing numbers. Missing number with inverse.	**Place Value** Previous – Numbers to 100. Ordering and comparing. Counting in 2s, 5s, 10s and 3s. Estimating and checking. • Introduce hundreds (ten tens) • Count in hundreds • Make numbers to 1000 • Read and write numbers to 1000 (zero as place holder) • Partition into HTO and represent in different ways • Identify PV on number line (proportionally) • 1, 10, 100 more/less • Compare objects • Compare numbers • Order numbers • Count in 50s			**Addition and Subtraction** Previous – Add 2-digit and 2-digit using expanded column method. Subtract a 2-digit from a 2-digit on a number line. Mentally add and subtract ones and tens separately. Add 3 single-digit numbers. • Mentally add and subtract multiples of 100 (link to counting in 100s) • Mentally add and subtract a 1-digit from a 3-digit number (no boundaries) • Mentally add and subtract a 1-digit from a 3-digit number (boundaries) • Mentally add and subtract a multiple of 10 with a 3-digit number (no boundaries) • Mentally add and subtract a multiple of 10 with a 3-digit number (boundaries) • Mentally add and subtract a multiple of 100 with a 3-digit number (no boundaries) • Mentally add and subtract a multiple of 100 with a 3-digit number (boundaries) • Add a 3-digit number to a 2-digit number (no boundaries) using expanded column • Add a 3-digit number to a 2-digit number (boundaries) using expanded column • Add a 3-digit number to a 3-digit number (no boundaries) using expanded column • Add a 3-digit number to a 3-digit number (boundaries) using expanded column method • Subtract a 3-digit number to a 2-digit number (no boundaries) using expanded column • Subtract a 3-digit number to a 2-digit number (boundaries) using expanded column • Subtract a 3-digit number to a 3-digit number (no boundaries) using expanded column • Subtract a 3-digit number to a 3-digit number (boundaries) using expanded column • Solve one-step whole number problems, including missing number problems , all operations, with numbers to 1000 (not higher than 'number)			**Multiplication and Division (Mental)** Previous – Recognise x and ÷ symbols. Know 2, 5, 10 multiplication and division facts. Count in 3s. Make equal groups. Use equipment, arrays and number lines. • Recap equal groups and how this is linked to multiplication and division • Multiply and divide by 3 (3x table) • Count in 4s • Multiply and divide by 4 (4x table) • Count in 8s • Multiply and divide by 8 (8x table) • Compare facts linked to earlier unit using <,> and =. • Fact families linked to known facts		**Mop up**	**Assessment**	**Money** Previous – Knows £ and p symbols. Can combine coins to make totals and different coins for the same amount. Can find totals of amounts, find the difference and calculate change. • Recap values of coins and notes. • Understand that same amount can be made in a variety of ways. • Convert between pounds and pence (not decimal notation) • Add money (pounds, then pence) • Subtract money (convert to pence) • Give change	**Investigations**
Spring Consider white rose style word problems. Consider missing number box questions (see arithmetic assessment) Answer at the start of a calculation. Balancing calculations with missing numbers. Missing number with inverse.	Place Value/Addition and Subtraction • Estimate answers using (near numbers) • Check answers using and estimation • Embed methods for addition and subtraction. * Solve two-step whole number problems, all operations, with numbers to 1000 (not higher than 'number)		Multiplication and Division • Related facts (linked to previous unit) • Multiply a 2-digit number by a 1-digit number, no carrying (column alongside concrete) • Multiply a 2-digit number by a 1-digit number, with carrying (column alongside concrete) • Divide a 2-digit number by a 1-digit number, no exchange or remainders (sharing equipment – tens first) • Divide a 2-digit number by a 1-digit number, with exchange but no remainders (move from equipment to known facts) • Divide a 2-digit number by a 1-digit number, introduce remainders (move to bus stop format) • Scaling problems • Possible combinations – link to multiplication and model systematic working. • Solve two-step whole number problems, all operations, with numbers to 1000 (not higher than 'number)	**Statistics** Previous – tally charts, pictograms (linked to 2s, 5s and 10s) and block graphs • Recap pictograms – link key into new number facts • Bar charts – use tally/pictogram to covert • Read bar charts with scales of 1, 2, 5 and 1o • Use tables to answer one and two step problems (link to addition and subtraction) • Present information they have collected in tables • Convert tables to pictograms and bar charts	**Fractions** Previous – numerator and denominator, halves, quarters, thirds, unit and non-unit fractions. • Recap parts and wholes linked to unit and non-unit fractions • Totalling a whole • Understanding tenths • Counting in tenths • Tenths as decimals • Counting in fractions • Representing fractions on a number line • Unit fraction of an amount • Non-unit fraction of an amount • Solving fraction problems	**Length and Perimeter** Previous – measure to nearest cm/m. Order and compare lengths. • Measure length including mm • Recognise equivalence between cm and m • Recognise equivalence between cm and mm • Compare lengths (using converting) • Adding and subtracting lengths (mental and formal) • Introduce perimeter • Understand that different shapes can have the same perimeter • Calculate perimeter of rectangles – repeated addition or link to multiplication • Calculate perimeter of wider range of shapes. • Find missing lengths in perimeter	**Assessment**	**Mop up**		
Summer **Consider white rose style word problems linked to assessment.** Consider missing number box questions (see arithmetic	**Fractions** Previous - equivalence of ½ and ¼ • Investigate equivalent fractions using equipment e.g Cuisenaire • Compare images to identify equivalent fractions • Find equivalent fractions by looking for links between numerators and denominators (x and ÷) • Compare unit fractions • Compare fractions with the same denominator		**Time** Previous – time to 5 minute intervals. Minutes in hour, hours in day, etc. Compare and calculate durations within an hour. • Months and years, including leap year. • Calendars • Recap hours in a day and vocabulary such as noon and midnight • Recap time to 5 minute intervals (introduce roman numeral clocks) • Time to nearest minute • Introduce am and pm and digital clocks • Compare 12 hr clocks to analogue	**Shape** Previous – recognising main 2D and 3D shapes. Identifying properites such as side, vertices, edges, faces and lines of symmetry. Sorting shapes. Types of turns, clockwise and anti-clockwise. • Understand that an angle is the measure of a turn. • Recap turns • Know a right-angle is a ¼ turn and identify in shapes. • Compare angles introducing acute and obtuse • Draw straight lines accurately • Understand horizontal and vertical • Find horizontal and vertical lines of symmetry • Introduce parallel (use arrow notation • Introduce perpendicular (link to right angles)		**Mass and Capacity** Previous – Measure in g, kg, l and ml. Use scales of 2,5 and 10. Compare measurements. • Measure mass in a range of scales – kg or g (some unnumbered intervals) • Measure mass with a mixture of Kg and g • Compare mass using <,> and = • Add and subtract mass	**Assessment**	**Mop up**	**investigations**

assessment) Answer at the start of a calculation. Balancing calculations with missing numbers. Missing number with inverse.	• Order unit fractions • Order fractions with the same denominator • Add fractions with the same denominator (not above 1) • Subtract fractions with the same denominator (not above 1)	• Introduce 24hr clock • Compare 24hr to 12hr and analogue • Find time durations with a range of clocks (number line) • Compare time durations (longest, quickest, etc) • Find start and end times from duration • Measure time in seconds and compare duration	• Identify parallel and perpendicular in a range of shapes, lines and patterns. • Recognise and describe 2D shapes using angles as well as other properties. • Sort 2D shapes based on angles and lines • Draw 2D shapes using known properties. • Recognise 3D shapes and describe with properties. • Understand the difference between flat face and curved surface. • Understand the difference between a prism and a pyramid • Construct 3D shapes	• Measure capacity in l or ml (some unnumbered intervals) • Measure capacity with ml and l together • Compare capacities with <,> and = • Add and subtract capacity			