

Medium term Plans for Autumn Year 3

Week	Main focus of teaching and activities each day	Starter	Outcomes of each day
1	<p>Number, place value and money</p> <p>Day 1: Revise placing 2-digit numbers on an empty number line</p> <p>Day 2: Place 3-digit numbers on a landmarked</p> <p>Day 3: Place value and ordering 3-digit numbers</p> <p>Day 4: Write amounts in pounds and pence</p> <p>Day 5: Place value and comparing amounts of money written in pounds and pence</p> <p><u>Three coins</u></p> <p>NRICH link: Which Scripts?</p>	<p>Day 1: Place value in 2-digit numbers</p> <p>Day 2: Count in 1s from 101 to 200</p> <p>Day 3: Count on and back in tens from any single or 2-digit number</p> <p>Day 4: Place value in 3 - digit numbers</p> <p>Day 5: Count in 10s between 100 and 200 using 101 to 200 square</p>	<p>Number, place value and money</p> <p>Day 1: 1. Say what each digit in a 2-digit number represents. 2. Place 2-digit numbers accurately on a 0-100 line.</p> <p>Day 2: 1. Place 3-digit numbers accurately on a landmarked 0-1000 line.</p> <p>Day 3: 1. Say what each digit represents in a 3 digit number. 2. Use this knowledge to compare 3-digit numbers.</p> <p>Day 4: 1. Write amounts in £ and p including using zero as place holder.</p> <p>Day 5: 1. Write amounts in £ and p. 2. Compare amounts of money using place value knowledge.</p>

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2	<p>Mental addition and subtraction</p> <p>Day 1: Addition and subtraction facts up to 20</p> <p>Day 2: Using the = sign to represent equality</p> <p>Day 3: Use number facts to add a 1-digit number to a 2-digit number</p> <p>Day 4: Use number facts to subtract a 1-digit number from a 2-digit number</p> <p>Day 5: Add several small numbers, using number facts</p> <p><u>Puzzling squares</u></p> <p>Mathematical challenges: <u>Card tricks</u>, Activity 32</p>	<p>Day 1: Pairs to 10</p> <p>Day 2: Addition facts for numbers 6 to 9</p> <p>Day 3: Complements to multiples of 10</p> <p>Day 4: Number facts</p> <p>Day 5: Doubles 1 to 10</p>	<p>Mental addition and subtraction</p> <p>Day 1: 1. Know number bonds for all number up to 20. 2. Use number bonds in addition and subtraction.</p> <p>Day 2: 1. Write balancing number sentences using numbers up to 20. 2. Understand that = represents equality.</p> <p>Day 3: 1. Use known number facts to add 1-digit to 2-digit numbers. 2. Cross a tens boundary when adding.</p> <p>Day 4: 1. Use known number facts to subtract 1-digit from 2-digit numbers. 2. Cross a tens boundary when subtracting.</p> <p>Day 5: 1. Use number facts to choose a sensible order to add 4 or more numbers. 2. Explain the reasons for your choices.</p>
3	<p>Mental addition and subtraction</p> <p>Day 1: Add 2-digit numbers by partitioning</p> <p>Day 2: Add 2-digit numbers by partitioning</p> <p>Day 3: Subtract by counting up (answers less than 20)</p> <p>Day 4: Subtract by counting up (answers more than 20)</p> <p>Day 5: Count up to find change from a pound</p> <p><u>Twisted subtractions</u></p>	<p>Day 1: Add pairs of multiples of 10</p> <p>Day 2: Number bonds</p> <p>Day 3: Complements to multiples of 10, e.g., $57 + \square = 60$</p> <p>Day 4: Subtraction number bonds to 10</p> <p>Day 5: Use place value to add and subtract</p>	<p>Mental addition and subtraction</p> <p>Day 1: 1. Add pairs of 2-digit numbers by partitioning and recombining, totals in tens or ones more than 10.</p> <p>Day 2: 1. Add pairs of 2-digit numbers by partitioning and recombining, totals in tens and ones more than 10.</p> <p>Day 3: 1. Subtract numbers lying either side of a multiple of ten, e.g. $42 - 28$, drawing own empty number line.</p> <p>Day 4: 1. Subtract any pair of 2-digit numbers by counting up.</p> <p>Day 5: 1. Count up to find change from a pound.</p>

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4	<p>Shape</p> <p>Day 1: Recognise lines of symmetry, complete symmetrical drawings</p> <p>Day 2: Describe, name and sort 2D shapes</p> <p>Day 3: Describe, name and sort 2D shapes using a Venn diagram</p> <p>Day 4: Describe, name and sort 3D shapes</p> <p>Day 5: Describe, name and sort 3D shapes using a Carroll diagram</p> <p><u>Don't make a triangle</u></p> <p>Explore 2D shape and symmetry in Islamic Art, e.g. at http://www.vam.ac.uk/content/articles/t/teachers-resource-maths-and-islamic-art-and-design/</p>	<p>Day 1: Find lines of symmetry</p> <p>Day 2: 2D shapes</p> <p>Day 3: Telling the time</p> <p>Day 4: Naming 3D shapes</p> <p>Day 5: Number bonds to 10 and 20</p>	<p>Shape</p> <p>Day 1: 1. Recognise and find one or more lines of symmetry. 2. Complete complicated symmetrical drawings.</p> <p>Day 2: 1. Describe and name 2D shapes. 2. Sort shapes in different ways according to their properties.</p> <p>Day 3: 1. Describe properties and name 2D shapes. 2. Recognise right angles. 3. Sort 2D shapes using a Venn diagram.</p> <p>Day 4: 1. Describe and name 3D shapes and use correct mathematical vocabulary. 2. Sort shapes according to their properties.</p> <p>Day 5: 1. Describe and name 3D shapes and use correct mathematical vocabulary. 2. Sort 3D shapes using a Carroll diagram.</p>
5	<p>Mental multiplication and division</p> <p>Day 1: Double 2-digit numbers up to 50</p> <p>Day 2: Halve even 2-digit numbers</p> <p>Day 3: Revise 5 and 10 times tables, division facts and commutativity</p> <p>Day 4: Revision of 2 times table, focusing on division</p> <p>Day 5: Recognising multiples of 2, 5 and 10</p> <p><u>Make the multiples</u></p> <p>Mathematical challenges Footsteps in the snow, Activity 49</p>	<p>Day 1: Doubles to double 15, doubles of multiples of 10</p> <p>Day 2: Halve even numbers to 30, halve even multiples of 10</p> <p>Day 3: Count in 5s and 10s to at least 100</p> <p>Day 4: Count in 2s</p> <p>Day 5: 2, 5 and 10 times tables</p>	<p>Mental multiplication and division</p> <p>Day 1: 1. Double 2-digit numbers up to 50 by partitioning and recombining.</p> <p>Day 2: 1. Halve even 2-digit numbers up to 50 by partitioning and recombining.</p> <p>Day 3: 1. Know \times and \div facts for the 5 and 10 times tables 2. Understand that multiplications is commutative.</p> <p>Day 4: 1. Write \times and \div sentence sentences for the 2 times table.</p> <p>Day 5: 1. Confidently recognise multiples of 2, 5 and 10.</p>

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6	<p>Number, place value and money</p> <p>Day 1: Add using place value</p> <p>Day 2: Subtract using place value</p> <p>Day 3: Add and subtract money using place value</p> <p>Day 4: Add 1, 10 and 100 to any 3-digit number</p> <p>Day 5: Subtract 1, 10 and 100 from any 3-digit number</p> <p><u>Money bags</u></p>	<p>Day 1: Place value in 3-digit numbers</p> <p>Day 2: Compare pairs of 3-digit numbers, using > and <</p> <p>Day 3: £ and p place value</p> <p>Day 4: Count on and back in ones from a three-digit number</p> <p>Day 5: Count on and back in tens from a 3-digit number</p>	<p>Number, place value and money</p> <p>Day 1: 1. Say what each digit represents in a 3-digit number. 2. Use knowledge of place value to add.</p> <p>Day 2: 1. Use knowledge of place value to subtract. .</p> <p>Day 3: 1. Say what each digit represents in a 3-digit amount of money. 2. Use this knowledge to add and subtract money.</p> <p>Day 4: 1. Know what each digit represents in a 3-digit number. 2. Add 1, 10 or 100 to a 3-digit number.</p> <p>Day 5: 1. Know what each digit represents in a 3-digit number. 2. Subtract 1, 10 or 100 from a 3-digit number.</p>
7	<p>Mental addition and subtraction</p> <p>Day 1: Add 100s, 10s and 1s</p> <p>Day 2: Subtract 100s, 10s and 1s</p> <p>Day 3: Add and subtract near multiples of 10 to/from 2-digit numbers</p> <p>Day 4: Add near multiples of 10 to 3-digit numbers</p> <p>Day 5: Subtract near multiples of 10 from 3-digit numbers</p> <p><u>Magic 147</u></p>	<p>Day 1: Pairs to 20, and related subtractions</p> <p>Day 2: Add any pair of single-digit numbers</p> <p>Day 3: Add/subtract multiples of 10 to or from any 2-digit number</p> <p>Day 4: Count on and back in 10s from a 3-digit number</p> <p>Day 5: Count in 2s from any 3-digit number</p>	<p>Mental addition and subtraction</p> <p>Day 1: 1. Say what each digit represents in a 3-digit number. 2. Add 1s, 10s or 100s to a 3-digit number, without crossing the tens or hundreds boundary.</p> <p>Day 2: 1. Say what each digit represents in a 3-digit number. 2. Subtract 1s, 10s or 100s from a 3-digit number, without crossing the tens or hundreds boundary.</p> <p>Day 3: 1. Add or subtract a multiple of 10 to/from a 2-digit number. 2. Add or subtract a near multiple of 10 to/from a 2-digit number.</p> <p>Day 4: 1. Add a multiple of 10 to a 3-digit number. 2. Add a near multiple of 10 to a 3-digit number without crossing the tens or hundreds boundary.</p> <p>Day 5: 1. Subtract a multiple of 10 to from a 3-digit number. 2. Subtract a near multiple of 10 from a 3-digit number without crossing the tens or hundreds boundary.</p>

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8	<p><i>Mental addition and subtraction</i></p> <p>Day 1: Know multiples of 5 which total 100</p> <p>Day 2: Know pairs of 2-digit numbers which total 100</p> <p>Day 3: Subtract numbers on either side of 100 by counting up</p> <p>Day 4: Subtract numbers on either side of 100 by counting up</p> <p>Day 5: Subtract numbers on either side of 100 by counting up</p> <p><u>Closest to 100</u></p>	<p>Day 1: Count on and back in 5s</p> <p>Day 2: Complements to multiples of 10</p> <p>Day 3: Bonds to 20</p> <p>Day 4: Complements to 100</p> <p>Day 5: Change from £1</p>	<p><i>Mental addition and subtraction</i></p> <p>Day 1: 1. Know multiples of 5 to 100. 2. Confidently list pairs of multiples of 5 which add to 100.</p> <p>Day 2: 1. Quickly find pairs of numbers with a total of 100.</p> <p>Day 3: 1. Use counting up to subtract numbers on either side of 100, answers less than 20.</p> <p>Day 4: 1. Use counting up to subtract numbers on either side of 100, answers less than 30.</p> <p>Day 5: 1. Use counting up to subtract numbers on either side of 100, answers less than 40.</p>
9	<p><i>Measures and data</i></p> <p>Day 1: Revise telling time past the hour (to 5 minutes) on both analogue and digital clocks</p> <p>Day 2: Revise telling time to the hour (to 5 minutes) on analogue and digital clocks</p> <p>Day 3: Know equivalent analogue and digital times; Use am and pm</p> <p>Day 4: Time events in seconds, record on a bar chart, one step is 10 seconds</p> <p>Day 5: Collect/ represent data in pictograms, one symbol represents 2 units</p> <p><u>Dodgy digital clock</u></p> <p>NRICH link: Clocks</p>	<p>Day 1: 5 times table</p> <p>Day 2: Pairs of multiples of 5 with a total of 60</p> <p>Day 3: Units of time</p> <p>Day 4: Months of the year</p> <p>Day 5: 2 times table</p>	<p><i>Measures and data</i></p> <p>Day 1: 1. Tell the time to the nearest 5 minutes. 2. Match equivalent digital and analogue times.</p> <p>Day 2: 1. Tell the time to the nearest 5 minutes on analogue and digital clocks. 2. Read Roman numerals.</p> <p>Day 3: 1. Tell the time to the nearest 5 minutes using am and pm and clocks without numbers.</p> <p>Day 4: 1. Understand units of time. 2. Time events in seconds and record results in a bar chart, where one step is 10 seconds.</p> <p>Day 5: 1. Collect and represent data in pictograms where one symbol represents two units.</p>

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10	<p>Mental multiplication and division</p> <p>Day 1: \times and \div facts for the 3 times table</p> <p>Day 2: \times and \div facts for the 4 times table</p> <p>Day 3: Writing division facts to go with multiplications</p> <p>Day 4: Dividing using multiplication facts, with remainders</p> <p>Day 5: Dividing using multiplication facts, with remainders</p> <p><u>Mystery age</u></p> <p>Mathematical challenges Susie the snake, Activity 30</p>	<p>Day 1: Count in 3s from 3 to at least 36</p> <p>Day 2: Count in 4s from 4 to at least 48</p> <p>Day 3: Division facts for 10 times table</p> <p>Day 4: Division facts for 5 times table</p> <p>Day 5: Division facts for 2 times table</p>	<p>Mental multiplication and division</p> <p>Day 1: 1. Know 3 times table. 2. Know related division facts.</p> <p>Day 2: 1. Know 4 times table. 2. Know related division facts.</p> <p>Day 3: 1. Understand that multiplication is the inverse of division. 2. Write related multiplication and division facts.</p> <p>Day 4: 1. Divide by 5 and find a remainder.</p> <p>Day 5: 1. Use multiplication facts to divide a number where the answer has a remainder.</p>
11	<p>Fractions</p> <p>Day 1: Understanding the concept of $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$ of shapes and number</p> <p>Day 2: Finding $\frac{1}{2}$ of quantities, including odd numbers</p> <p>Day 3: Finding halves of quantities less than 100</p> <p>Day 4: Finding $\frac{1}{4}$ and $\frac{3}{4}$ of quantities</p> <p>Day 5: Finding $\frac{1}{3}$ and $\frac{2}{3}$ of quantities</p> <p><u>Fraction clues</u></p> <p>NRICH link: Use or adapt Fractional Triangles</p>	<p>Day 1: Count in steps of $\frac{1}{2}$ along a number line</p> <p>Day 2: Doubles to double 15</p> <p>Day 3: Sort odd and even numbers</p> <p>Day 4: 4 times table</p> <p>Day 5: 3 times table</p>	<p>Fractions</p> <p>Day 1: 1. Know what $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$ of a shape looks like. 2. Find $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$ of a small number (whole number answers).</p> <p>Day 2: 1. Find $\frac{1}{2}$ of a quantity, including odd numbers. 2. Write a jotting to show halving a quantity.</p> <p>Day 3: 1. Find $\frac{1}{2}$ of a 2-digit number. 2. Investigate a general statement. 3. Know if 2-digit numbers are odd or even.</p> <p>Day 4: 1. Know what $\frac{1}{4}$ and $\frac{3}{4}$ of a shape looks like. 2. Find $\frac{1}{4}$ and $\frac{3}{4}$ of a quantity (whole number answers).</p> <p>Day 5: 1. Know what $\frac{1}{3}$ and $\frac{2}{3}$ of a shape looks like. 2. Find $\frac{1}{3}$ and $\frac{2}{3}$ of a quantity.</p>

Title of topic – colour code (see below)

GREEN – Place Value or number

ORANGE – Addition or subtraction

PURPLE – Multiplication or division (inc. scaling or square/cube numbers or multiples and factors...)

GREY – Fractions or decimals or percentages or ratio

BLUE – shape or measures or data

BROWN – Algebra

The Hamilton plans do provide resources for practice of the relevant algorithms, skills and the reinforcement of crucial understandings. However, some teachers may prefer to use textbooks as an additional source of practice. We have agreed with Pearson, the publisher of Abacus, that we can reference the Abacus textbooks and that they will do a special deal if any Hamilton users wish to purchase a set of these textbooks. These are new books, written specifically to match the new National Curriculum. Any schools wishing to follow this up should go to this webpage:

<http://www.pearsonschoolsandcolleges.co.uk/Primary/GlobalPages/AbacusFriendsofHamiltonTrust/SpecialOfferforFriendsofHamiltonTrust.aspx>

OUTCOMES FOR Y3 (Hamilton Assessment Tracker)

Key Outcomes in bold

- 1. Read, write and locate any 3-digit number on a landmarked line from 0-1000 and use this to order and compare numbers.** N
2. Estimate quantities and represent numbers in different ways. N
- 3. Understand place value in 3-digit numbers; add and subtract 1, 10 or 100 without difficulty.** N
4. Count from 0 in 2s, 4s, 8s, 10s, 100s, and 50s. N
5. Solve number problems and practical problems involving place value. N
6. Round to the nearest ten and hundred, e.g. 34 to the nearest ten is 30, 276 to the nearest hundred is 300. N
- 7. Know securely number pairs for all the numbers up to and including 20, e.g. pairs which make 15 (7+8, 6+9, 5+10, 4+11, 3+12, 2+13, 1+14, 0+15).** AS
- 8. Mentally add or subtract any pair of 2 digit numbers, e.g. 75 + 58 or 75 – 58.** AS

9. Mentally add and subtract multiples of 1s, 10s and 100s to/from 3-digit numbers. **AS**
- 10. Recognise that there are two ways of completing subtractions, either by counting up or by counting back.** **AS**
11. Add numbers with 3-digits using column addition, first expanded then compact method **AS**
- 12. Subtract larger numbers with confidence, using 'Frog' for counting up, e.g. 302 – 288.** **AS**
13. Estimate answers and use addition to check subtraction, understanding that addition and subtraction are inverse operations. **AS**
14. Solve problems, including missing number problems. **AS**
- 15. Understand that multiplication is commutative, and write mathematical statements for multiplication and division.** **MD**
- 16. Understand that division is the inverse of multiplication, e.g. that $\square \times 3 = 21 \equiv 21 \div 3 = ?$.** **MD**
- 17. Know the 2x, 3x, 4x, 5x, 8x and 10x times tables, including division facts.** **MD**
18. Multiply 2-d nos by 10 or 1-d nos by 100; divide multiples of 10 or 100 by 10 or 100. Understand the effect of \times or \div by 10/100. **MD**
19. Multiply a 1 digit number by a 2 digit number using partitioning. **MD**
- 20. Partition to double and halve numbers.** **MD**
21. Solve problems, including missing number and scaling problems. **MD**
22. Recognise and show using diagrams, equivalent fractions for $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{3}$, e.g. $\frac{1}{4} \equiv \frac{3}{12}$. **FD**
- 23. Recognise, find and write unit and non-unit fractions of convenient amounts, e.g. 1/10 of 100 or 1/3 of 60.** **FD**
24. Count up and down in fractional steps, e.g. counting in $\frac{1}{2}$ s, $\frac{1}{4}$ s or $\frac{1}{3}$ s; hence recognise fractions as numbers. **FD**
- 25. Count up and down in tenths and understand that tenths are the result of dividing an object or quantity into 10 equal parts.** **FD**
26. Compare and order unit fractions and fractions with the same denominator; add or subtract fractions with the same denominator. **FD**
27. Solve problems involving fractions. **FD**
- 28. Measure, compare, add and subtract lengths, weights and capacities.** **MS**
29. Know that there are 100cm in a metre and that there are 10mm in a centimetre **MS**
- 30. Use a ruler to measure lines.** **MS**
31. Measure the perimeter of simple 2-D shapes. **MS**
- 32. Add and subtract amounts of money and give change by counting up; use both £ and p in practical contexts.** **MS**
- 33. Tell and write the time on digital and analogue clocks (incl. those with Roman numerals).** **MS**
34. Record times in seconds, minutes, hours, days, weeks, months, years including leap years, converting from one unit to another. **MS**
35. Compare durations of events using analogue and digital times and vocabulary such as am and pm. **MS**
- 36. Interpret and represent data on scaled bar charts, pictograms and tables, and solve problems using these.** **MS**
- 37. Draw 2-D and make 3-D shapes, recognising both in different orientations, and describe them.** **G**

38. Identify right angles as 90° in shapes, and also as turns; recognise angles as less than or greater than 90° . G
39. Identify horizontal and vertical lines, and pairs of parallel and perpendicular lines. G

NB The letters in orange indicate the strand to which each outcome belongs on Hamilton Assessment Tracker