

Medium term Plans for Autumn Year 5

Help these children be in a better position to achieve good results in the Y6 Sats in 2015. Although these tests will officially be based on the old curriculum, it is expected that they will represent an interpretation which draws on the hardest rather than the easiest interpretation of each attainment target. Since the ATs on the old curriculum often encompass a wide range of questions within a topic, taking the top rather than the middle level will make the test substantially more difficult.

Week	Main focus of teaching and activities each day	Starter	Outcomes of each day
1	<p>Number (place value in whole numbers) and Written Addition</p> <p>Day 1: Place value in 5-digit numbers (PV additions/subtractions)</p> <p>Day 2: Add/subtract 1s, 10s, 100s, 1000s and 10,000s</p> <p>Day 3: Place 5-digit numbers on a line and compare pairs of numbers, use < and ></p> <p>Day 4: Revise using column addition to add pairs of 4-digit numbers</p> <p>Day 5: Begin to use column addition to add pairs of 5-digit numbers</p>	<p>Day 1: Starter – Place value in 4-digit numbers</p> <p>Day 2: Starter – +/- 100 or 1000 to/from 4-digit numbers</p> <p>Day 3: Starter – Count on/back in 10s from 3-digit numbers</p> <p>Day 4: Starter – Add 3 single digit numbers spotting bonds to 10 and doubles</p> <p>Day 5: Starter – Pairs to 100</p>	<p>Number (place value in whole numbers) and Written Addition</p> <p>Day 1: Outcomes: 1. Partition 5- /6-digit numbers in thousands, hundreds, tens, units. 2. Say what each digit represents in 5- & 6-digit numbers. 3. Complete place value additions and subtractions</p> <p>Day 2: Outcomes: 1. Add/subtract 1s, 10s, 1000s and 10,000s to/from 5-digit numbers.</p> <p>Day 3: Outcomes: 1. Compare 5-digit numbers using > and < signs. 2. Place 5-digit numbers on 0 to 100,000 landmarked lines</p> <p>Day 4: Outcomes: 1. Use column addition to add any pair of 4-digit nos 2. Approximate answers</p> <p>Day 5: Outcomes: 1. Begin to use column addition to add pairs of 5-digit numbers</p>
2	<p>Number (place value in decimals) and Written Addition of money</p> <p>Day 1: Divide by 10 and 100 to give answers with two decimal places</p> <p>Day 2: Multiply and divide by 10 and 100</p> <p>Day 3: Place two place decimal numbers on a number line and compare two numbers</p> <p>Day 4: Add amounts of money using column addition; Use using rounding to check answers</p> <p>Day 5: Add amounts of money using column addition; Use using rounding to check answers</p>	<p>Day 1: Starter – Place value in 1-place decimal numbers</p> <p>Day 2: Starter – Adding to the next whole number from 1-place decimal nos</p> <p>Day 3: Starter – Placing 5-digit numbers on a human number line</p> <p>Day 4: Starter – Convert between units of time</p> <p>Day 5: Starter – Mixed addition facts bingo</p>	<p>Number (place value in decimals) and Written Addition of money</p> <p>Day 1: Understand the effect of multiplying and dividing by 10 and 100 2. Understand place value in decimal numbers with up to two places.</p> <p>Day 2: 1. Understand the effect of multiplying and dividing by 10 and 100 2. Understand place value in decimal numbers with up to two places.</p> <p>Day 3: Outcomes: 1. Place numbers with two decimal places on a number line empty between neighbouring wholes. 2. Compare and order numbers with one or two decimal places</p> <p>Day 4: Outcomes: 1. Use column addition to add any pair of amounts of money, e.g. £45.78 + £25.79</p> <p>Day 5: Outcomes: 1. Use column addition to add any pair of amounts of money, e.g. £45.78 + £25.79 2. Use rounding to estimate totals of pairs of amounts of money</p>

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3	<p>Written and Mental subtraction</p> <p>Day 1: Use frog to find change from £20, £50 and £100</p> <p>Day 2: Use Frog to subtract amounts of money</p> <p>Day 3: Use column subtraction (decomposition) to subtract pairs of 4-digit numbers</p> <p>Day 4: Use column subtraction (decomposition) to subtract 3-digit numbers from 4-digit numbers</p> <p>Day 5: Choose whether to use counting up (Frog) or column subtraction (decomposition) to work out given calculations</p>	<p>Day 1: Starter – Bonds to £1</p> <p>Day 2: Starter – Change from £1</p> <p>Day 3: Starter – Subtraction facts</p> <p>Day 4: Starter – 24 hour clock</p> <p>Day 5: Starter – Place numbers with 2 decimal places on a line</p>	<p>Written and Mental subtraction</p> <p>Day 1: Outcomes: 1. Find the change from £20, £50 and £10 using counting up (Frog)</p> <p>Day 2: Outcomes: 1. Find the difference between 4-digit prices using counting up (Frog)</p> <p>Day 3: Outcomes: 1. Use column subtraction (decomposition) to subtract pairs of 4-digit numbers where one or two moves are necessary</p> <p>Day 4: Outcomes: 1. Use column subtraction (decomposition) to subtract 3-digit numbers from 4-digit numbers</p> <p>Day 5: Outcomes: 1. Use frog (counting up) to subtract pairs of 4-digit numbers 2. Choose Frog or column subtraction to subtract pairs of 4-digit numbers</p>
4	<p>Shape</p> <p>Day 1: Sort 3D shapes according to their properties; Visualise 3D shapes from 2D drawings</p> <p>Day 2: Visualise 3D shapes from 2D drawings; Describe properties of prisms and pyramids</p> <p>Day 3: Describe properties of 2D shapes including polygons</p> <p>Day 4: Describe properties of polygons</p> <p>Day 5: Classify quadrilaterals</p>	<p>Day 1: Starter – Find lines of symmetry</p> <p>Day 2: Starter – Bonds to 100</p> <p>Day 3: Starter – Times tables</p> <p>Day 4: Starter – Reading scales</p> <p>Day 5: Starter – Place value in 4-digit numbers</p>	<p>Shape</p> <p>Day 1: Outcomes: 1. Use a range of mathematical vocabulary to describe 3D shapes 2. Sort 3D shapes according to their properties using Carroll diagrams</p> <p>Day 2: Outcomes: 1. Visualise 3D shapes from 2D representational drawings 2. Describe properties of prisms and pyramids</p> <p>Day 3: Outcomes: 1. Use a range of mathematical vocabulary to describe 2D shapes</p> <p>Day 4: Outcomes: 1. Find properties of polygons including parallel and perpendicular sides</p> <p>Day 5: Outcomes: 1. Know properties of different quadrilaterals</p>

Week	Main focus of teaching and activities each day	Starter	Outcomes of each day
5	<p>Mental multiplication and division and Fractions</p> <p>Day 1: Find common multiples</p> <p>Day 2: Find factors of 2-digit numbers</p> <p>Day 3: Division problems. Round up or down after division</p> <p>Day 4: Find equivalent fractions; Simplify fractions</p> <p>Day 5: Compare fractions with related denominators</p>	<p>Day 1: Starter – Double numbers to 100</p> <p>Day 2: Starter – Double and halve numbers to 100</p> <p>Day 3: Starter – Bar charts</p> <p>Day 4: Starter – Divisibility by 2, 3, and 5</p> <p>Day 5: Starter – Times tables</p>	<p>Mental multiplication and division and Fractions</p> <p>Day 1: Outcomes: 1. Find common multiples</p> <p>Day 2: Outcomes: 1. Find factors of numbers to 50 2. Recognise that square numbers have an odd number of factors</p> <p>Day 3: Outcomes: 1. Decide whether to round up or down after division depending on the context</p> <p>Day 4: Outcomes: 1. Recognise equivalent fractions 2. Simplify fractions</p> <p>Day 5: Outcomes: 1. Compare fractions with related denominators</p>
6	<p>Number, place value and Written multiplication</p> <p>Day 1: Place 4-digit numbers on a line, round to nearest 10, 100 or 1000</p> <p>Day 2: Place 5-digit numbers on a line and round to the nearest 10, 100, 1000 or 10,000</p> <p>Day 3: Revise using the grid method to multiply 3-digit numbers by single-digit numbers</p> <p>Day 4: Introduce short multiplication to multiply 3-digit numbers by single-digit numbers</p> <p>Day 5: Use short multiplication to multiply 3-digit numbers by single-digit numbers</p>	<p>Day 1: Starter – ‘Zap’ digits in a 4-digit number</p> <p>Day 2: Starter – Count on/back in 10s, 100s, 1000s from 4-digit numbers.</p> <p>Day 3: Starter – Times tables</p> <p>Day 4: Starter – Multiply by multiples of 10 (e.g. 24 x 30)</p> <p>Day 5: Starter – Find the time later using 24-hour clock</p>	<p>Number, place value and Written multiplication</p> <p>Day 1: Outcomes: 1. Place 4-digit numbers on a line and round to the nearest 10, 100 or 1000</p> <p>Day 2: Outcomes: 1. Place 5-digit numbers on a line and round to the nearest 10, 100, 1000 or 10,000</p> <p>Day 3: Outcomes: 1. Use the grid method to multiply 3-digit numbers by single-digit numbers 2. Make approximations</p> <p>Day 4: Outcomes: 1. Use short multiplication to multiply 3-digit numbers by single-digit numbers</p> <p>Day 5: Outcomes: 1. Use short multiplication to multiply 3-digit numbers by single-digit numbers</p>

Week	Main focus of teaching and activities each day	Starter	Outcomes of each day
7	<p>Mental multiplication and division and Written Division</p> <p>Day 1: Recognise multiples; use rules of divisibility</p> <p>Day 2: Find prime numbers less than 50</p> <p>Day 3: Division above the tables using vertical layout chunking (answers less than 40)</p> <p>Day 4: Divide using a vertical layout. Round up or down after division</p> <p>Day 5: Division above the tables using vertical layout chunking (answers up to 60); Choose written or mental method</p>	<p>Day 1: Starter – Times tables</p> <p>Day 2: Starter – Reading scales</p> <p>Day 3: Starter – Place 5-digit numbers on a human number line</p> <p>Day 4: Starter – Convert between units of time</p> <p>Day 5: Starter – Addition facts to 20</p>	<p>Mental multiplication and division and Written Division</p> <p>Day 1: Outcomes: 1. Use rules of divisibility for 2, 3, 4, 5 and 9.</p> <p>Day 2: Outcomes: 1. Find prime numbers to at least 50.</p> <p>Day 3: Outcomes: 1. Use the vertical layout of chunking to divide numbers, answers up to 30.</p> <p>Day 4: Outcomes: 1. Round up or down after division according to the context.</p> <p>Day 5: Outcomes: 1. Use the vertical layout of chunking to divide numbers, answers up to 60. 2. Choose to divide using a written or mental method.</p>
8	<p>Number, place value and Written subtraction</p> <p>Day 1: Count on and back in steps of 0.01 and 0.1 from numbers with 2 decimal places</p> <p>Day 2: Add and subtract multiples of 0.1 or 0.01 without crossing multiples of 0.1 or 1</p> <p>Day 3: Subtract pairs of numbers with one decimal place</p> <p>Day 4: Subtract pairs of numbers with two decimal places using counting up (Frog)</p> <p>Day 5: Subtract pairs of numbers with one or two decimal places using counting up (Frog)</p>	<p>Day 1: Starter – Multiply and divide by 10 and 100</p> <p>Day 2: Starter – How much to next pound?</p> <p>Day 3: Starter – Pairs to 100</p> <p>Day 4: Starter – Double 2-digit numbers</p> <p>Day 5: Starter – Change from £1</p>	<p>Number, place value and Written subtraction</p> <p>Day 1: Outcomes: 1. Add/subtract 0.1 and 0.01 to/from numbers with 2 decimal places.</p> <p>Day 2: Outcomes: 1. Add and subtract multiples of 0.1 or 0.01 without crossing multiples of 0.1 or 1.</p> <p>Day 3: Outcomes: 1. Subtract pairs of numbers with one decimal place by counting up or counting back.</p> <p>Day 4: Outcomes: 1. Count up to subtract pairs of numbers with two decimal places.</p> <p>Day 5: Outcomes: 1. Subtract pairs of numbers with one or two decimals places and some pairs with a mixture.</p>

Week	Main focus of teaching and activities each day	Starter	Outcomes of each day
9	<p>Measures/Data</p> <p>Day 1: Convert between grams and kilograms, millilitres and litres (mainly to one decimal place)</p> <p>Day 2: Convert between metres and kilometres; know approximate conversion between miles and km; begin to draw line graph and read intermediate points</p> <p>Day 3: Know regularly used imperial units and approximate metric equivalents</p> <p>Day 4: Read timetables using the 24-hour clock; calculate time intervals</p> <p>Day 5: Calculate time intervals using the 24-hour clock</p>	<p>Day 1: Starter – Multiply and divide by 10 and 100</p> <p>Day 2: Starter – Place numbers with 2 decimal places on a line</p> <p>Day 3: Starter – Times tables</p> <p>Day 4: Starter – Read the 24-hour clock</p> <p>Day 5: Starter – Pairs to 60</p>	<p>Measures/Data</p> <p>Day 1: Outcomes: 1. Convert between grams and kilograms, millilitres and litres.</p> <p>Day 2: Outcomes: 1. Convert between metres and kilometres. 2. Know approximate conversion between miles and km. 3. Begin to draw line graph and read intermediate points.</p> <p>Day 3: Outcomes: 1. Know regularly used imperial units and approximate metric equivalents.</p> <p>Day 4: Outcomes: 1. Read timetables using the 24-hour clock. 2. Calculate time intervals.</p> <p>Day 5: Outcomes: 1. Calculate time intervals using the 24-hour clock.</p>
10	<p>Fractions</p> <p>Day 1: Introduce mixed numbers, turn improper fractions into mixed numbers and vice versa</p> <p>Day 2: Compare and order fractions with related denominators</p> <p>Day 3: Add fractions with related denominators</p> <p>Day 4: Subtract fractions with related denominators</p> <p>Day 5: Find unit and non-unit fractions of amounts</p>	<p>Day 1: Starter – Factors</p> <p>Day 2: Starter – Count in $\frac{1}{4}$s and $\frac{1}{8}$s along a number line</p> <p>Day 3: Starter – Reading scales</p> <p>Day 4: Starter – Mental multiplication</p> <p>Day 5: Starter – Mental division</p>	<p>Fractions</p> <p>Day 1: Outcomes: 1. Convert improper fractions to mixed numbers.</p> <p>Day 2: Outcomes: 1. Compare and order fractions with related denominators.</p> <p>Day 3: Outcomes: 1. Add fractions with related denominators..</p> <p>Day 4: Outcomes: 1. Subtract fractions with related denominators.</p> <p>Day 5: Outcomes: 1. Find unit and non-unit fractions of amounts.</p>

Week	Main focus of teaching and activities each day	Starter	Outcomes of each day
11	<p>Mental and written addition and subtraction and Written multiplication</p> <p>Day 1: Revise mental addition and subtraction (Place Value and near multiples)</p> <p>Day 2: Add pairs of 5-digit numbers (f-digit answers)</p> <p>Day 3: Use decomposition to subtract pairs of 5-digit numbers</p> <p>Day 4: Use short multiplication to multiply 3-digit numbers by single-digit numbers</p> <p>Day 5: Use short multiplication to multiply 3-digit amounts of money by single-digit numbers</p>	<p>Day 1: Starter – Count in $\frac{1}{4}$s and $\frac{1}{8}$s along a number line</p> <p>Day 2: Starter – Revise addition facts to 20</p> <p>Day 3: Starter – Pairs to 100</p> <p>Day 4: Starter – Times tables</p> <p>Day 5: Starter – Factors and multiples</p>	<p>Mental and written addition and subtraction and Written multiplication</p> <p>Day 1: Outcomes: 1. Use place value to add and subtract. 2. Add and subtract near multiples.</p> <p>Day 2: Outcomes: 1. Use column addition to add pairs of 5-digit numbers (5-digit answers). 2. Use rounding to approximate answers.</p> <p>Day 3: Outcomes: 1. Use decomposition to subtract pairs of 5-digit numbers.</p> <p>Day 4: Outcomes: 1. Use short multiplication to multiply 3-digit numbers by single-digit numbers.</p> <p>Day 5: Outcomes: 1. Use short multiplication to multiply 3-digit amounts of money by single-digit numbers.</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.pearsonschoolsandfecolleges.co.uk/Primary/GlobalPages/AbacusFriendsofHamiltonTrust/SpecialOfferforFriendsofHamiltonTrust.aspx>