Medium term Plans for Spring 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	***Place value and negative numbers Written Addition*** **Day 1:** Place value in 6-digit numbers (PV + and -, compare numbers). **Day 2**: Add and subtract 1, 10, 100, 1000, 10,000 and 100,000 to/from six-digit numbers **Day 3:** Place 6-digit numbers on number lines and round to the nearest 100 or 1000. **Day 4:** Use negative numbers in context of temperature; Calculate rises and falls in temperature. **Day 5:** Use negative numbers in the context of temperature; Find differences between temperatures.	**Day 1:** Place value in five-digit numbers. **Day 2:** Count on/back in 10s, 100s, 1000s from 4-digit numbers. **Day 3:** Add and subtract near multiples of 10 and 100 to 3-digit numbers. **Day 4:** Double 2-digit numbers. **Day 5:** Pairs to 100	***Place value and negative numbers Written Addition*** **Day 1:** Outcomes: 1. Say what each digit represents in a 6-digit number. 2. Write place value related additions and subtractions. 3. Compare pairs of 6-digit numbers. **Day 2:** Outcomes: 1. Add and subtract 1, 10, 100, 1000, 10,000 and 100,000 to/from six-digit numbers. **Day 3:** Outcomes: 1. Place 6-digit numbers on empty number lines. 2. Round 6-digit numbers to the nearest 100 to 1000. **Day 4:** Outcomes: 1. Use negative numbers in context of temperature. 2. Calculate rises and falls in temperature. **Day 5:** Outcomes: 1. Find a difference between a negative temperature and positive temperature.
2	***Mental addition and subtraction including money*** **Day 1:** Use place value to add and subtract; add and subtract near multiples of 100 and 1000. **Day 2**: Use counting up (Frog) to subtract four digit-numbers from multiples of 1000. **Day 3:** Subtract pairs of two-digit numbers with one decimal place. **Day 4:** Use frog to find change from £100; use column addition to add amounts. **Day 5:** Use Frog to find the difference between amounts of money.	**Day 1:** Place value in 4-digit and 5-digit numbers. **Day 2**: Rounding whole numbers to nearest 1000. **Day 3:** Add to the next whole number from a 1-place decimal number. **Day 4:** Mental ÷, answer as fractions. **Day 5:** Starter – Find intervals using 24 hour clock.	***Mental addition and subtraction including money*** **Day 1:** Outcomes: 1. Use place value to add and subtract 2. Add and subtract near multiples of 100 and 1000 **Day 2:** Outcomes: 1. Use counting up (Frog) to subtract four digit-numbers from multiples of 1000 2. Find all possibilities by working systemically **Day 3:** Outcomes: 1. Subtract pairs of two-digit numbers with one decimal place, choosing to count back or count up (Frog) **Day 4:** Outcomes: 1. Use frog to find change from £100 2. Use column addition to add amounts of money **Day 5:** 1. Use Frog to find the difference between amounts of money 2. Estimate differences

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3	***Place value and Addition of decimals*** **Day 1:** Place value addition and subtraction of numbers with 2 decimal places. **Day 2**: Multiply and divide by 10, 100 and 1000. **Day 3:** Round decimals to the nearest whole and tenth. **Day 4:** Use written addition to add decimals; use rounding to estimate totals. **Day 5:** Adding decimal numbers.	**Day 1:** 1-place decimals. **Day 2**: Adding to the next whole number from a 1-place decimal number. **Day 3:** Difference between negative numbers. **Day 4:** 24-hour clock. **Day 5:** Place numbers with 2 decimal places on a line.	***Place value and Addition of decimals*** **Day 1:** Outcomes: 1. Say what each digit represents in a number with 2 decimal places. 2. Use place value to add and subtract. **Day 2:** Outcomes: 1. Multiply and divide by 10, 100 and 1000 to give answers with two decimal places. **Day 3:** Outcomes: 1. Round numbers with 2 decimal places to the nearest whole and tenth. **Day 4:** Outcomes: 1. Add pairs of 3-digit numbers with 1 decimal place, 2 decimals places or both. 2. Use rounding to make an estimate. **Day 5:** Outcomes: 1. Add pairs of 4-digit numbers with 2 decimal places. 2. Use rounding to make an estimate.
4	***Co-ordinates and line graphs*** **Day 1:** Plot points and draw polygons in two quadrants. **Day 2**: Work out new co-ordinates after a translation. **Day 3:** Reflect a shape and write the new co-ordinates. **Day 4:** Draw line graphs of times tables. **Day 5:** Draw a conversion graph of imperial to metric units and use it to read off equivalent measures.	**Day 1:** Revise finding lines of symmetry. **Day 2**: Pairs to 100. **Day 3:** Reading scales. **Day 4:** Times tables. **Day 5:** Round decimal numbers to nearest tenth and whole.	***Co-ordinates and line graphs*** **Day 1:** Outcomes: 1. Plot points in two quadrants. 2. Draw polygons and identify the co-ordinates of their vertices. **Day 2:** Outcomes: 1. Translate polygons on a grid in one direction. 2. Begin to predict the new co-ordinates after a translation in one direction. **Day 3:** Outcomes: 1. Reflect polygons in the y-axis. 2. Begin to predict the new co-ordinates after a reflection in the y-axis. **Day 4:** Outcomes: 1. Draw line graphs of times tables. 2. Revise the times tables. **Day 5:** Draw conversion graphs and read off intermediate values. 2. Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.

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5	***Mental multiplication and division; written multiplication*** **Day 1:** Find lowest common multiples and highest common factors. **Day 2**: Use mental strategies (factors and multiples) to multiply by 5, 20, 6, 4 and 8. **Day 3:** Use mental strategies to divide by 5, 20, 6, 4 and 8. **Day 4:** Use short multiplication to multiply 4-digit numbers by 1-digit numbers; Use rounding to approximate. **Day 5:** Use short multiplication to multiply 4-digit no.'s by 1-digit numbers; Use commutativity of X.	**Day 1:** Divisibility by 2, 3, or 5. **Day:** Double two-digit numbers. **Day 3:** Halve 2-digit numbers. **Day 4:** Bar charts. **Day 5:** Times table bingo.	***Mental multiplication and division; written multiplication*** **Day 1:** 1. Find the highest common factor of three 2-diigt numbers. 2. Find the lowers common multiple of 3 single-digit numbers. **Day 2:** 1. Use mental strategies to multiply two and three-digit numbers by 5, 20, 6, 4 and 8. 2. Use knowledge of factors and multiples in mental multiplication. **Day 3:** 1. Use mental strategies to divide 'friendly' numbers by 5, 20, 6, 4 and 8. 2. Use knowledge of factors and multiples in mental multiplication. **Day 4:** 1. Use short multiplication to multiply 4-digit nos by 1-digit nos. 2. Use rounding to approximate. 3. Understand that multiplication is commutative. **Day 5:** Use short multiplication to multiply 4-digit nos by 1-digit nos. 2. Use rounding to approximate. 3. Understand that multiplication is commutative.
6	***Fractions, decimals and word problems*** **Day 1:** Revise comparing fractions with related denominators using equivalence. **Day 2**: Use mental division strategies to find unit fractions of amounts. **Day 3:** Find non-unit fractions of amounts. **Day 4:** Find fractions, multiply and divide to solve word problems. **Day 5:** Know decimal equivalents for halves, quarters, fifths, tenths and hundredths.	**Day 1:** Write improper fractions as mixed numbers. **Day 2**: Find unit fractions of amounts within tables. **Day 3:** Division fact. **Day 4:** Mental division. **Day 5:** Add/subtract 0.1/0.01s.	***Fractions, decimals and word problems*** **Day 1:** . 1. Compare and order fractions with related denominators. **Day 2:** Outcomes: 1. Use mental division strategies to find unit fractions of amounts. **Day 3:** Outcomes: 1. Find non-unit fractions of amounts. **Day 4:** Outcomes: 1. Find fractions, multiply and divide to solve word problems. **Day 5:** Outcomes: 1. Know decimal equivalents for halves, quarters, fifths, tenths and hundredths.

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7	***Written division; multiplying fractions*** **Day 1:** Use short division to divide three-digit numbers by single-digit numbers **Day 2**: Use short division to divide three-digit numbers by single-digit numbers including where the first digit is less than the divisor **Day 3:** Use short division to divide three-digit numbers by single-digit numbers; divide any remainders to give fractions **Day 4:** Multiply unit fractions by whole numbers **Day 5:** Multiply non-unit fractions by whole numbers	**Day 1:** Times tables **Day 2**: Find highest common factors **Day 3:** Doubles and halves **Day 4:** Find the lowest common multiple **Day 5:** Units of time	***Written division; multiplying fractions*** **Day 1:** Outcomes: 1. Use short division to divide three-digit numbers by single-digit numbers. **Day 2:** Outcomes: 1. Use short division to divide three-digit numbers by single-digit numbers including where the first digit is less than the divisor. **Day 3:** Outcomes: 1. Use short division to divide three-digit numbers by single-digit numbers including where the first digit is less than the divisor. 2. Divide any remainders to give fractions. **Day 4:** Outcomes: 1. Multiply unit fractions by whole numbers, writing any improper fractions as mixed numbers. **Day 5:** Outcomes: 1. Multiply non-unit fractions by whole numbers, writing any improper fractions as mixed numbers.
8	***Number (place value, Addition of decimals*** **Day 1:** Use place value to add and subtract to/from 6-digit numbers **Day 2**: Compare 6-digit numbers and round to the nearest 10, 100, 1000, 10,000 and 100,000 **Day 3:** Use decomposition to subtract pairs of five-digit numbers **Day 4:** Use decomposition to subtract pairs of five-digit numbers **Day 5:** Use decomposition to subtract pairs of five-digit numbers and four-digit numbers from five-digit numbers; solve word problems	**Day 1:** Round 3-digit numbers to nearest 10 or 100 **Day 2**: Pairs to 100 **Day 3:** Revise subtraction facts to 20 **Day 4:** Finding change from £1 **Day 5:** Count up to the next 1000	***Number (place value), Addition of decimals*** **Day 1:** 1. Use place value to add and subtract to/from 6-digit numbers **Day 2:** 1. Compare 6-digit numbers 2. Round 6-digit numbers to the nearest 10, 100, 1000, 10,000 and 100,000 **Day 3**1. Use decomposition to subtract pairs of five-digit numbers **Day 4:** 1. Use decomposition to subtract pairs of five-digit numbers including where there is a zero in the first number. **Day 5:** 1. Use decomposition to subtract pairs of five-digit numbers and four-digit numbers from five-digit numbers 2. Solve word problems

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9	***Perimeter, area and volume*** **Day 1:** Find the perimeters of rectangles and composite shapes **Day 2**: Work out the missing lengths of sides in order to find perimeters **Day 3:** Find areas of squares and rectangles in cm^2 or m^2 **Day 4:** Estimate area of irregular shapes; calculate the area from scale drawings **Day 5:** Multiply 3 numbers together	**Day 1:** Round decimals to the nearest whole or tenth **Day 2**: Compare numbers with 1 decimal place and position on a line **Day 3:** Multiply and divide by 10/100 **Day 4:** Multiply by 100 and 1000 **Day 5:** Find and estimate volumes	***Perimeter, area and volume*** **Day 1:** Outcomes: 1. Find the perimeters of rectangles and composite shapes. **Day 2:** Outcomes: 1. Work out the missing lengths of sides in order to find perimeters. **Day 3:** Outcomes: 1. Find the area of rectangles including squares by multiplying the lengths of two adjacent sides together. **Day 4:** Outcomes: 1. Estimate then count to find the area of irregular shapes. 2. Calculate the area from scale drawings. **Day 5:** Outcomes: 1. Estimate and find the volume of shapes by making it with cm cubes.
10	***Number, place value and written subtraction*** **Day 1:** Multiply and divide by 10, 100 and 1000 **Day 2**: Place numbers with two decimal places on a line, round to the nearest tenth or whole **Day 3:** Use Frog (counting up) to subtract pairs of nos with same number of decimal places **Day 4:** Use Frog (counting up) to subtract pairs of numbers with different numbers of decimal places, e.g. 3.2 – 1.78 and 5.34 – 3.7 **Day 5:** Use counting up to find change and differences between prices; Solve subtraction word problems	**Day 1:** Place 6-digit no.'s on a number line **Day 2**: Place value additions and subtractions **Day 3:** Pairs with a total of 1 metre **Day 4:** Subtracting numbers with 1 decimal place **Day 5:** Reading scales	***Number, place value and written subtraction*** **Day 1:** Outcomes: 1. Multiply and divide by 10, 100 and 1000 (answers with 2 or fewer decimal places). **Day 2:** Outcomes: 1. Place numbers with two decimal places on an empty line, round to the nearest tenth or whole. **Day 3:** Outcomes: 1. Use Frog (counting up) to subtract pairs of numbers with the same number of decimal places. **Day 4:** Outcomes: 1. Use Frog (counting up) to subtract pairs of numbers with different numbers of decimal places, e.g. 3.2 – 1.78 and 5.34 – 3.7. **Day 5:** Outcomes: 1. Solve single and two-step word problems involving subtraction. 2. Choose an appropriate strategy to solve subtraction.

Week	Main focus of teaching and activities each day	Starter	Outcomes of each day
11	***Mental & written addition & subtraction; Written x and ÷*** **Day 1:** Revise column addition of four-digit and five-digit numbers **Day 2**: Revise column addition and subtraction of four-digit and five-digit numbers **Day 3:** Use place value to add and subtract; add and subtract near multiples of 100, 1000 and 10,000 **Day 4:** Use short multiplication to multiply four-digit numbers (including amounts of money) by single-digit numbers **Day 5:** Use short division to divide four-digit numbers by single-digit numbers	**Day 1:** Count in 1/4s and 1/8s **Day 2**: Addition facts to 20 **Day 3:** Pairs to 100 **Day 4:** Factors and multiples **Day 5:** Times table bingo	***Mental & written addition & subtraction; Written x and ÷*** **Day 1:** Outcomes: 1. Use column addition to add pairs of 5-digit numbers, three 4-digit numbers, and 4-digit numbers to 5-digit numbers. **Day 2:** Outcomes: 1. Add and subtract pairs of 5-digit numbers. 2. Make and test predictions, generate rules. **Day 3:** Outcomes: 1. Use place value to add and subtract to and from 5-digit numbers. 2. Add and subtract near multiples of 100, 1000 and 10,000. **Day 4:** Outcomes: 1. Use short multiplication to multiply four-digit numbers (including amounts of money) by single-digit numbers. **Day 5:** Outcomes: 1. Use short division to divide four-digit numbers by single-digit numbers.

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