**Medium term Plan for Summer Year 4**

| **Week** | **Main focus of teaching and activities each day** | **Starter**  | **Outcomes of each day** |
| --- | --- | --- | --- |
| 1 | ***Number and place value*****Day 1:** Place value addition and subtraction (4-digit numbers).**Day 2**: Place 4-digit numbers on landmarked lines (sections with 10s, then just 100s marked) and round to the nearest 10 and 100.**Day 3:** Place four-digit numbers on landmarked lines (marked in 1000s) and round to the nearest 1000.**Day 4:** Count on and back in steps of 25 and 1000.**Day 5:** History of zero and place value, Roman numerals to 100. | **Day 1:** Starter - Order 4-digit numbers. **Day 2:**  Starter - Place 2-digit numbers on ENLs.**Day 3:** Starter - Count on/back in steps of 10 to/from 4-digit numbers.**Day 4:** Starter - Count and back in steps of 6.**Day 5:** Starter - Round 4-digit numbers to nearest 10, 100 and 1000. | ***Number and place value*****Day 1:** 1. Use place value to add/ subtract to/from four-digit numbers.**Day 2:** 1. Place four-digit numbers between neighbouring multiples of 100.2. Round four-digit numbers to the nearest 10 and 100.**Day 3:** 1. Place four-digit numbers on landmarked lines (marked in 1000s) .2. Round four-digit numbers to the nearest 1000.**Day 4:** 1. Count in steps of 25 and 1000 from numbers other than 0.**Day 5:** 1. Write numbers to 100 using Roman numerals.2. Appreciate how we use 0 as a place holder. |
| 2 | ***Mental and written subtraction*****Day 1:** Revise compact decomposition of 3-digit numbers.**Day 2**: Expanded decomposition of 4-digit numbers (one move).**Day 3:** Use expanded then compact decomposition to subtract pairs of 4-digit numbers (2 moves).**Day 4:** Use compact decomposition to subtract 3 and 4-digit numbers from 4-digit numbers.**Day 5:** Use counting up (Frog) to subtract pairs of numbers which are close to multiples of 1000, or when the larger number has zeroes. | **Day 1:** Starter - Subtraction facts.**Day 2:** Starter - Subtraction facts.**Day 3:** Starter - Complements to 100.**Day 4:** Starter - 6 times table.**Day 5:**  Starter - 7 times table. | ***Mental and written subtraction*****Day 1:** 1. Use compact decomposition to subtract pairs of 3-digit numbers.**Day 2:** 1. Use expanded decomposition to subtract pairs of 4-digit numbers, needing one move.**Day 3:** 1. Say what each digit represents in a 3 or 4-digit number.2. Use this knowledge to order 4-digit numbers.**Day 4:** 1. Use compact decomposition to subtract 3 and 4-digit numbers from 4-digit numbers.**Day 5:** 1. Use counting up (Frog) to find the difference between near 4-digit numbers or where the first number has 2 or more zeroes.2. Choose to use decomposition or counting up (Frog). |
| 3 | ***Addition and subtraction*****Day 1:** Expanded and compact decomposition, including 3 moves. **Day 2**: Add any pair of 4-digit numbers using compact addition.**Day 3:** Add and subtract near multiples of 10, 100 and 1000.**Day 4:** Choose mental or written methods for addition and subtraction.**Day 5:** Solve addition and subtraction word problems. | **Day 1:** Starter - Subtract pairs of 2-digit numbers.**Day 2**: Starter - Add any pair of multiples of 10.**Day 3:** Starter - Add/subtract multiples of 10, 100 1000 to/from 4-digit numbers.**Day 4:** Starter - Add any pair of 2-digit numbers.**Day 5:** Convert from centimetres to metres and centimetres. | ***Addition and subtraction*****Day 1:** 1. Use compact decomposition to subtract any pair of 4-digit numbers, including those requiring three moves. 2. Spot where a mental method would be quicker. **Day 2:** 1. Use compact addition to add any pair of four-digit numbers.**Day 3:** 1. Add and subtract near multiples of 10, 100 and 1000 to/from three and four-digit numbers**Day 4:** 1. Choose written or mental methods for addition and subtraction.**Day 5:** 1. Solve word problems needing addition or subtraction. |
| 4 | ***Shape and Measures*****Day 1:** Find area of rectilinear shapes by counting squares.**Day 2**: Find area of rectilinear shapes by counting squares.**Day 3:** Calculate perimeter in centimetre and metre of rectangles.**Day 4:** Investigate area and perimeter.**Day 5:** Revise co-ordinates, complete polygons. | **Day 1:** Starter - 8 times table.**Day 2**: Starter - 9 times table.**Day 3:** Starter - Double any 2-digit numbers.**Day 4:** Starter - Choose suitable units of measure for range of items.**Day 5:** Starter - Roman numerals. | ***Shape and Measures*****Day 1:** 1. Find area of rectilinear shapes by counting squares.**Day 2:** 1. Find perimeter of rectilinear shapes in centimetres by counting.**Day 3:** 1. Calculate perimeter in centimetre and metre of rectangles.2. Generalise how this is done.**Day 4:** 1. Realise that shapes with the same area do not necessarily have the same perimeter.2. Find that ‘squarer’ rectangles have smaller perimeters than longer, thinner rectangles with the same area.**Day 5:** 1. Use co-ordinates in the first quadrant and join posit not draw polygons. |
| 5 | ***Fractions and decimals*** **Day 1:** Revise numbers with one decimal place: mark on ENLs and round to the nearest whole.**Day 2**: Introduce numbers with 2 decimal places on place value grids, multiply and divide single-digit numbers by 10 and 100 to give tenths, then hundredths.**Day 3:** × and ÷ 2-digit, then 3-digit numbers by 10 and 100 to give tenths & hundredths. **Day 4:** Find equivalent 1/100s and 0.01s, 1/10s and 0.1s.**Day 5:** Place value addition and subtraction, e.g. 4.06 + 0.5, 4.56 – 0.06. | **Day 1:** Starter - Convert millimetre to centimetre, and vice versa.**Day 2**: Starter - Multiply numbers with one decimal place by 10.**Day 3:** Starter - Convert centimetre to metre and vice versa.**Day 4:** Starter - Round distances, e.g. 4.6 centimetres to the nearest whole centimetre. **Day 5:** Starter - Read, then convert analogue times to digital. | ***Fractions and decimals*** **Day 1:** 1. Place numbers with one decimal place on empty number lines.**Day 2:** 1. Divide by 10 and 100 to give tenths and hundredths, and multiply to give tenths and wholes. 2. Understand the effect of multiplying and dividing by 10 and by 100.**Day 3:** 1. Say what each digit represents in a number with 2 decimal places.2. Divide by 10 and 100 to give tenths and hundredths, and multiply to give tenths and wholes. 3. Understand the effect of multiplying and dividing by 10 and by 100.**Day 4:** 1. Find equivalent 1/100s and 0.01s, 1/10s and 0.1s.**Day 5:** 1. Write place value subtraction for numbers with 2 decimal places. |
| 6 | ***Fractions and decimals*** **Day 1:** Compare and order numbers with 2 decimal places.**Day 2**: Place numbers with 2 decimal places on landmarked lines (marked in 0.1s).**Day 3:** Add/subtract 0.1/0.01 to/from numbers with 2 decimal places; count on and back in tenths and hundredths.**Day 4:** Add/subtract multiples of 0.1/0.01.**Day 5:** Solve simple measure problems. | **Day 1:** Starter - Division facts for 6 times table.**Day 2:** Starter - Division facts for 9 times table.**Day 3:** Starter - How many millilitres in litre, millimetres in centimetre, grams in kilograms etc. **Day 4:** Starter - Write lengths between 3 and 4 metres, put in order.**Day 5:** Starter - Count up and down in steps of 0.01 through multiples of 0.1 and 1. | ***Fractions and decimals*** **Day 1:** 1. Say what each digit represents in a 4-digit number.2. Write place value related additions. **Day 2:** 1. Place numbers with 2 decimal places on landmarked lines (marked in 0.1s).**Day 3:** 1. Add/subtract 0.1/0.01 to/from numbers with 2 decimal places; count on and back in tenths and hundredths.**Day 4:** 1. Add/subtract multiples of 0.1/0.01.**Day 5:** 1. Solve simple measure problems using place value in lengths in metres with 2 decimal places. |

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| 7 | ***Multiplication or division and measures*****Day 1:** Revise factors; use to aid mental multiplication.**Day 2**: Multiply 3 numbers together, use commutativity to make easier, e.g. 2 × 6 × 5 = 10 × 6.**Day 3:** Use knowledge of times tables and place value to divide multiples of 10, e.g. 350 ÷ 7. **Day 4:** Solve scaling problems; convert from centimetres to metres.**Day 5:** Solve correspondence problems. | **Day 1:** 7 times table.**Day 2**: 11 times table.**Day 3:** Multiply single-digit numbers by multiples of 10 and 100, e.g. 4 × 60, 7 × 400.**Day 4:** Double and halve 2-digit numbers.**Day 5:**  12 times table. | ***Multiplication or division and measures*****Day 1:** 1. Find factors of numbers less than 50.2. Use factors to carry out mental multiplication. **Day 2:** 1. Multiply 3 numbers together, use commutativity to make easier, e.g. 2 × 6 × 5 = 10 × 6.**Day 3:** 1. Use knowledge of times tables and place value to divide multiples of 10, e.g. 350 ÷ 7. **Day 4:** 1. Solve scaling problems.2. Convert from centimetres to metres.**Day 5:** 1. Use listing systematically to solve correspondence problems. |
| 8 | ***Shape*****Day 1:** Complete symmetrical shapes and patterns with respect to a line of symmetry.**Day 2**: Recognise acute and obtuse angles, compare angles.**Day 3:** Recognise different types of triangle; recognise acute, obtuse and right angles.**Day 4:** Recognise acute, obtuse and right angles and find what numbers of each sort of angles are possible in quadrilaterals.**Day 5:** Sort quadrilaterals according to different properties. | **Day 1:** Compare pairs of numbers with 2 decimal places.**Day 2**: Count on and back in steps of 0.01 through multiples of 0.1 and 1.**Day 3:** Multiply and divide numbers by 10 and 100.**Day 4:**  Division facts for 8 times table.**Day 5:**  Division facts for 7 times table. | ***Shape*****Day 1:** 1. Complete symmetrical shapes and patterns with respect to a vertical, horizontal or diagonal line of symmetry.**Day 2:** 1. Recognise acute and obtuse angles, compare angles. **Day 3:** 1. Recognise different types of triangle.2. Recognise acute, obtuse and right angles.**Day 4:** 1. Recognise acute, obtuse and right angles.2. Find what numbers of each sort of angles are possible in quadrilaterals. **Day 5:** 1. Use a Venn diagram to sort quadrilaterals according to different properties, e.g. symmetry, right angles, parallel sides. |
| 9 | ***Measures and Data*****Day 1:** Revise 24-hr clock, convert to am and pm times and vice versa (including clocks with Roman numerals). **Day 2**: Find time intervals using 24-hour clock.**Day 3:** Read, interpret and describe a time graph.**Day 4:** Draw a time graph.**Day 5:** Convert between units of time. | **Day 1:** Convert time on analogue clocks to digital format written analogue times. **Day 2**: Convert pm times to 24-hr times.**Day 3:** Convert between kilometres and metres, litres and millilitres (1 decimal place and no decimal place.**Day 4:**  Convert between centimetres and millimetres (1 decimal place).**Day 5:**  Convert between metres and centimetres to metres (2 decimal places). | ***Measures and Data*****Day 1:** 1. Convert analogue times to digital times, both 12-hour and 24-hour formats.**Day 2:** 1. Find time intervals using 24-hour clock crossing the hour.**Day 3:** 1. Read, interpret and describe a time graph.**Day 4:** 1. Draw, read, interpret and describe a time graph.**Day 5:** 1. Convert between units of time.  |
| 10 | ***Fractions and division*****Day 1:** Identify equivalent fractions, including decimals.**Day 2:** Revise finding non-unit fractions of amounts.**Day 3**: Solve fraction word problems.**Day 4:** Divide two-digit numbers by single-digit numbers, answers less than 30 (without remainders). **Day 5:** Divide two-digit numbers by single-digit numbers, answers less than 30 (with remainders).  | **Day 1:** Count in steps of ¼, saying equivalent halves.**Day 2**: Find unit fractions of amounts.**Day 3:** Division facts for the 6 times table.**Day 4:** Division facts for the 8 times table.**Day 5:**  Division facts for the 7 times table. | ***Fractions and division*****Day 1:** 1. Identify equivalent fractions with numerators up to 12.2. Recognise decimal equivalents for tenths, halves, quarters and fifths. **Day 2:** 1. Find non-unit fractions of amounts.**Day 3:** 1. Solve fraction word problems. **Day 4:** 1. Divide two-digit numbers by single-digit numbers, answers less than 30 (without remainders). **Day 5:** 1. Divide two-digit numbers by single-digit numbers, answers less than 30 (with remainders).  |
| 11 | ***Multiplication/division and addition/subtraction*****Day 1:** Use the ladder method to multiply 3-digit numbers by single-digit numbers. **Day 2**: Use the ladder method to multiply 3-digit numbers by single-digit numbers, estimating answers first.**Day 3:** Multiplication and division word problems.**Day 4:** Mix of all four operations – all straight calculations mix of mental and written.**Day 5:** Solve word problems, all operations. | **Day 1:** 90 times table.**Day 2**: Quickly round 3-digit numbers to nearest 100.**Day 3:** Times table bingo.**Day 4:**  Round 4-digit numbers to nearest 10, 100 and 1000 (in table).**Day 5:**  Add/subtract pairs of 2-digit numbers. | ***Multiplication/division and addition/subtraction*****Day 1:** 1. Use the ladder method to multiply 3-digit numbers by single-digit numbers.**Day 2:** 1. Use the ladder method to multiply 3-digit numbers by single-digit numbers, estimating answers first. **Day 3:** 1. Solve word problems requiring multiplication or division.**Day 4:** 1. Choose mental or written method to solve a range of calculations, all four operations.**Day 5:** 1. Choose which operations(s) are necessary to solve word problems. |

***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>