Medium Term Plans for Autumn Years 5/6 Mixed age. MRS COTTAM

Week	Y5: Main focus of teaching/activities	Outcomes	Y6: Main focus of teaching/activities	Outcomes
1 September 11th	***Addition and place value*** Place value in 5-digit numbers (PV additions/subtractions). Add/subtract 1s, 10s, 100s, 1000s and 10,000s. Place 5-digit numbers on a line and compare pairs of numbers, use < and >.	1. Partition 5-digit numbers in thousands, hundreds, tens and ones. 2. Say what each digit represents in 5-digit numbers. 3. Complete place value additions and subtractions. 1. Add/subtract 1s, 10s, 1000s and 10,000s to/from 5-digit numbers. 1. Compare 5-digit numbers using > and < signs.	***Addition and place value*** Place value in 6-digit numbers (PV additions/subtractions). Add and subtract 1s, 10s, 100s, 1000s, 10,000s and 100,000s. Place 6-digit numbers on a line and compare pairs of numbers, use < and >.	1. Partition 6-digit numbers in thousands, hundreds, tens and ones. 2. Say what each digit represents in 6-digit numbers. 3. Complete place value additions and subtractions. 1. Add/subtract 1s, 10s, 1000s, 10,000s and 100,000s to/from 6-digit numbers. 1. Compare 6-digit numbers using > and < signs. 2. Place 6-digit numbers on 0 to 1,000,000 landmarked lines and begin to place on empty 0 to 1,000,000 lines
2	Revise using column addition to add pairs of 4-digit numbers. Begin to use column addition to add pairs of 5-digit numbers. ***HEADSTART PLACE VALUE***	2. Place 5-digit numbers on 0 to 100,000 landmarked lines. 1. Use column addition to add any pair of 4-digit numbers. 2. Approximate answers. 1. Begin to use column addition to add pairs of 5-digit numbers. ***HEADSTART PLACE VALUE***	Revise using column addition to add pairs of 5-digit numbers with 5-digit answers. Use column addition to add pairs of 5-digit numbers with 6-digit answers. ***HEADSTART PLACE VALUE***	1. Compare 6-digit numbers using > and < signs. 2. Place 6-digit numbers on 0 to 1,000,000 landmarked lines and begin to place on empty 0 to 1,000,000 lines. 1. Use column addition to add pairs of 5-digit numbers, with 5-digit answers. 1. Use column addition to add pairs of 5-digit numbers, with 6-digit answers. ***HEADSTART PLACE VALUE***

Week	Y5: Main focus of teaching/activities	Outcomes	Y6: Main focus of teaching/activities	Outcomes
3	***Addition and number*** Divide by 10 and 100 to give answers with two decimal places; Understand place value. Multiply and divide by 10 and 100. Place two place decimal numbers on a number line and compare two numbers.	1. Understand the effect of multiplying and dividing by 10 and 100. 2. Understand place value in numbers with 2 decimal places. 3. Solve place value addition and subtractions. 1. Understand the effect of multiplying and dividing by 10 and 100. 2. Understand place value in numbers with 2 decimal places. 1. Place numbers with 2 decimal places on a number line empty between neighbouring wholes. 2. Compare and order numbers with 1 or 2 decimal places.	***Addition and number*** Understand place value in numbers with three decimal places. Multiply and divide by 10, 100 and 1000. Place three place decimals on lines, round to the nearest 0.01, 0.1 or 1, Compare two numbers.	1. Understand the effect of multiplying and dividing by 10, 100 and 1000. 2. Understand place value in numbers with 3 decimal places. 3. Solve place value addition and subtractions. 1. Understand the effect of multiplying and dividing by 10 and 100. 2. Understand place value in numbers with 3 decimal places. 1. Place numbers with 3 decimal places on landmarked and empty number lines. 2. Use knowledge of decimals to solve puzzles
4	Add amounts of money using column addition; Use using rounding to check answers. Add amounts of money using column addition; Use using rounding to check answers.	1. Use column addition to add any pair of amounts of money, e.g. £45.78 + £25.79. 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.	Add 2 or 3 amounts of money using column addition; Use using rounding to check answers. . Add 2 or 3 numbers with two decimal places in a measures context, e.g. metres; Use rounding to check answers.	1. Use column addition to add three amounts of money, e.g. £45.78 + £25.79 + £24.85. 1. Use column addition to add three distances, e.g. 9.34m + 6.45m + 4.78m. 2. Use rounding to estimate totals.

Week	Y5: Main focus of teaching/activities	Outcomes	Y6: Main focus of teaching/activities	Outcomes
5	***Addition and subtraction*** Use frog to find change from £20, £50 and £100. Use Frog to subtract amounts of money. Use column subtraction (decomposition) to subtract pairs of 4-digit numbers.	1. Find the change from £20, £50 and £100 using counting up (Frog). 1. Find the difference between 4-digit prices using counting up (Frog). 1. Use column subtraction (decomposition) to subtract pairs of 4-digit numbers where one or two moves are necessary.	***Addition and subtraction*** Add several prices, then use frog to find change from £20, £50 and £100. Use Frog to subtract amounts of money. Revise using column subtraction (decomposition) to subtract pairs of 5-digit numbers.	1. Add several prices, and then find the change from £20, £50 and £100 using counting up (Frog). 1. 1. Find the difference between 5-digit prices using counting up (Frog). 1. Use column subtraction (decomposition) to subtract pairs of 5-digit numbers.
6	Use column subtraction (decomposition) to subtract 3-digit numbers from 4-digit numbers. Choose whether to use counting up (Frog) or column subtraction (decomposition) to work out given calculations (4 digits).	1. Use column subtraction (decomposition) to subtract 3-digit numbers from 4-digit numbers. 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.	Use column subtraction (decomposition) to subtract 3-digit numbers and 4-digit numbers from 5-digit numbers. Choose whether to use counting up (Frog) or column subtraction (decomposition) to work out given calculations (5 digits).	1. Use column subtraction (decomposition) to subtract 3-digit and 4-digit numbers from 5-digit numbers. 1. Use frog (counting up) to subtract pairs of 5-digit numbers. 2. Choose Frog or column subtraction to subtract pairs of 5-digit numbers.=

Week	Y5: Main focus of teaching/activities	Outcomes	Y6: Main focus of teaching/activities	Outcomes
7	Multiples and divisibility. Find factors of 2-digit numbers. ***HEADSTART ASSESSMENT***	1. Use rules of divisibility for 2, 3, 4, 5 and 9. 1. Find factors of numbers to 50. 2. Recognise that square numbers have an odd number of factors. ***HEADSTART ASSESSMENT***	Know the totals of angles in triangles and quadrilaterals; find missing angles; draw shapes to given dimensions. Find that opposite angles are equal; Find angles in polygons. ***HEADSTART ASSESSMENT***	1. Know the totals of angles inside triangles and quadrilaterals and use this and rules about angles on straight line and about a point to find missing angles. 2. Draw polygons with given lengths and angles. 1. Know that opposite angles are equal. 2. Find angles in polygons. ***HEADSTART ASSESSMENT***
8	***Multiplication and Fractions*** Find common multiples. Find prime numbers less than 50. Find equivalent fractions; Simplify fractions using multiples and factors.	1. Find common multiples. 1. Find prime numbers to at least 50. 1. Recognise equivalent fractions. 2. Simplify fractions.	***Multiplication and Fractions*** Find common multiples and factors. Find numbers that have a pair of prime factors. Find equivalent fractions; Simplify fractions using multiples and factors.	1. Recognise common multiples and find highest common factors. 1. Begin to find how a number can be made by multiplying prime factors together. 1. Recognise equivalent fractions 2. Simplify fractions.

Week	Y5: Main focus of teaching/activities	Outcomes	Y6: Main focus of teaching/activities	Outcomes
9	Compare fractions with related denominators. Find unit and non-unit fractions of amounts.	1. Compare fractions with related denominators. 1. Find unit and non-unit fractions of amounts.	Compare and order fractions with unrelated denominators. Find unit and non-unit fractions of amounts	1. Compare fractions with unrelated denominators. 1. Find $^{1}/_{5}$s and $^{1}/_{8}$s of amounts of money using short division, giving exact answers.
10	***Place value and Multiplication*** Place 4-digit numbers on a line, round to nearest 10, 100 or 1000. Place 5-digit numbers on a line and round to the nearest 10, 100, 1000 or 10,000. Revise using the grid method to multiply 3-digit numbers by single-digit numbers.	1. Place 4-digit numbers on a line and round to the nearest 10, 100 or 1000. 1. Place 5-digit numbers on a line and round to the nearest 10, 100, 1000 or 10,000. 1. Use the grid method to multiply 3-digit numbers by single-digit numbers. 2. Make approximations.	***Place value and Multiplication*** Place 5-digit numbers on a line, round to nearest 10, 100 or 1000. Place 6-digit numbers on a line and round to nearest 10, 100, 1000, 10,000 or 100,000. Revise using short multiplication to multiply 4-digit numbers by single-digit numbers; Round to approximate answers.	1. Place 5-digit numbers on a line and round to the nearest 10, 100 or 1000. 1. Place 6-digit numbers on a line and round to the nearest 10, 100, 1000, 10,000 or 100,000. 1. Use short multiplication to multiply 4-digit numbers by single-digit numbers. 2. Round 4-digit numbers to the nearest 100 to make approximations.

Week	Y5: Main focus of teaching/activities	Outcomes	Y6: Main focus of teaching/activities	Outcomes
11	Introduce short multiplication to multiply 3-digit numbers by single-digit numbers. Use short multiplication to multiply 3-digit numbers by single-digit numbers.	1. Use short multiplication to multiply 3-digit numbers by single-digit numbers. 2. Make approximations 1. Use short multiplication to multiply 3-digit numbers by single-digit numbers. 2. Make approximations.	Revise using short multiplication to multiply 4-digit numbers by single-digit numbers; use rounding to approximate answers. Revise using short multiplication to multiply 4-digit amounts of money by single-digit numbers.	1. Use short multiplication to multiply 4-digit numbers by single-digit numbers. 2. Round 4-digit numbers to the nearest 100 to make approximations. 1. Use short multiplication to multiply 4-digit prices by single-digit numbers. 2. Round 4-digit prices to the nearest pound to make approximations.
12	***Fractions, Multiplication and division*** Introduce mixed numbers, turn improper fractions into mixed numbers and vice versa. Division above the tables using vertical layout chunking (answers less than 40). Division above the tables using vertical layout chunking (answers up to 60); Choose written or mental method.	1. Convert improper fractions to mixed numbers. 1. Use the vertical layout of chunking to divide numbers, answers up to 30. 1. Use the vertical layout of chunking to divide numbers, answers up to 60. 2. Choose to divide using a written or mental method.	***Fractions, Multiplication and division*** Recognise fraction and decimal equivalents. Use short division to divide 3-digit and 4-digit numbers by 1-digt numbers and by 11 and 12with fraction parts of answers, e.g. 23¾. Use short division to divide 3- digit and 4-digit numbers by 1-digt numbers and by 11 and 12, with fraction parts of answers, e.g. 23¾ as 23.75.	1. Know decimal equivalents for ½, ¼s, 1/5, 1/8s, 1/10s and 1/100s. 1. Use short division to divide 4-digit numbers by 1-digt numbers and by 11 and 12, with fraction parts of answers, e.g. 23¾. 1. Use short division to divide 4-digit numbers by 1-digt numbers and by 11 and 12, writing fraction parts of answers as decimals, e.g. 23¾, as 23.75.

Week	Y5: Main focus of teaching/activities	Outcomes	Y6: Main focus of teaching/activities	Outcomes
13	Solve division word problems; Round up or down after division. Divide using a vertical layout; Round up or down after division.	1. Round up or down after division according to the context. 1. Round up or down after division according to the context.	Solve division word problems (including answers with fractions); Round up or down after division. Use short division to divide 3-digit by 1-digit numbers and by 11 and 12; Round up or down.	1. Use short division to divide 3-digit by 1-digt numbers and by 11 and 12; round up or down. 1. Decide whether to round up, round down or give an exact answer after division depending on the context.
14	***Place value and subtraction*** **Day 1:** Count on and back in steps of 0.01 and 0.1 from numbers with 2 decimal places. **Day 2**: Add and subtract multiples of 0.1 or 0.01 without crossing multiples of 0.1 or 1. **Day 3:** Subtract pairs of numbers with one decimal place.	**Day 1:** 1. Add/subtract 0.1 and 0.01 to/from numbers with 2 decimal places. **Day 2:** 1. Add and subtract multiples of 0.1 or 0.01 without crossing multiples of 0.1 or 1. **Day 3:** 1. Subtract pairs of numbers with one decimal place by counting up or counting back.	***Place value and subtraction*** **Day 1:** Count on and back in steps of 0.001 and 0.01. **Day 2:** Add and subtract multiples of 0.1, 0.01 or 0.001. **Day 3:** Add/subtract multiples of 0.01 to/from numbers with two decimal places, crossing multiples of 0.1.	**Day 1:** 1. Count on and back in steps of 0.001 and 0.01. **Day 2:** 1. Add and subtract multiples of 0.1, 0.01 or 0.001 beginning to cross multiples of 1, 0.1 and 0.01. **Day 3:** 1. Add/subtract multiples of 0.01 to/from numbers with two decimal places, crossing multiples of 0.1 and 1.
15	Subtract pairs of numbers with two decimal places using counting up (Frog). Subtract pairs of numbers with one or two decimal places using counting up (Frog).	1. Count up to subtract pairs of numbers with two decimal places. 1. Subtract pairs of numbers with one or two decimals places and some pairs with a mixture.	Subtract pairs of numbers with two decimal places using counting up (Frog). Subtract numbers with one or two decimal places by counting up from the smaller to the larger number (Frog), e.g. 2.76 – 0.83 or 13.4 – 2.76.	1. Count up to subtract pairs of numbers with one or two decimal places. 1. Subtract pairs of numbers with one or two decimals places and some pairs with a mixture.

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16	***Fractions*** Sort 3D shapes according to their properties; Visualise 3D shapes from 2D drawings. Visualise 3D shapes from 2D drawings; Describe properties of prisms & pyramids. Compare and order fractions with related denominators.	1. Use a range of mathematical vocabulary to describe 3D shapes. 2. Sort 3D shapes according to their properties using Carroll diagrams. 1. Visualise 3D shapes from 2D representational drawings. 2. Describe properties of prisms and pyramids. 1. Compare and order fractions with unrelated denominators.	***Fractions*** Recognise nets for a cube. Recognise and build pyramids and prisms, making nets. Compare and order fractions with unrelated denominators; Use common multiples to express fractions in the same denomination.	1. Recognise nets for a cube. 1. Make nets and use to make polyhedral. 1. Compare and order fractions with unrelated denominators.
17	Add fractions with related denominators. Subtract fractions with related denominators.	1. Add fractions with related denominators. 1. Subtract fractions with related denominators.	Add fractions with unrelated denominators. Subtract fractions with unrelated denominators.	1. Add fractions with unrelated denominators. 1. Subtract fractions with unrelated denominators.

Week	Y5: Main focus of teaching/activities	Outcomes	Y6: Main focus of teaching/activities	Outcomes
18	***Addition and subtraction/ Multiplication and division*** Revise mental addition and subtraction (using PV and near multiples). Mental division within the range of tables using remainders, fractions and decimal equivalences, e.g. 68 ÷ 8 = 8 r4 or 8½ or 8.5 Use short multiplication to multiply 3-digit amounts of money by single-digit numbers.	1. Use place value to add and subtract. 2. Add and subtract near multiples. 1. Perform divisions mentally within the range of tables using remainders, fractions and decimal equivalences, e.g. 68 ÷ 8 = 8 r4 or 8½ or 8.5 1. Use short multiplication to multiply 3-digit amounts of money by single-digit numbers.	***Addition and subtraction/ Multiplication and division*** Use grid multiplication to multiply 3-digit numbers by 2-digit numbers. Use long multiplication to multiply 3-digit numbers by numbers between 10 and 20. Use long multiplication to multiply 3-digit numbers by numbers between 20 and 30.	1. Use the grid method to multiply 3-digit numbers by 2-digit numbers. 1. Use long multiplication to multiply 3-digit numbers by numbers between 10 and 20. 1. Use long multiplication to multiply 3-digit numbers by numbers between 20 and 30.
19	Add pairs of five-digit numbers (five-digit answers). Use decomposition to subtract pairs of five-digit numbers. ***HEADSTART ASSESSMENT***	1. Use column addition to add pairs of five-digit numbers (five-digit answers). 2. Use rounding to approximate answers. 1. Use decomposition to subtract pairs of five-digit numbers. ***HEADSTART ASSESSMENT***	Choose how to solve a mix of +, -, × and ÷ mental and written calculations. Choose which operations(s) are necessary to solve single-step and multi-step word problems. ***HEADSTART ASSESSMENT***	1. Choose how to solve a mix of +, −, × and ÷ mental and written calculations. Choose which operations are necessary to solve single-step and multi-step word problems. ***HEADSTART ASSESSMENT***