

Mastery Four Unit Overviews: Spring Term 1

Use opportunities as part of the daily routine to tell the time to the nearest minute. At some point in each day, not necessarily the maths lesson, addition and subtraction facts (number bonds) and multiplication and division facts for the 2, 3, 4, 5, 6, 8, 9, 10 and 11 times tables should be rehearsed following guidance provided. Recall key conversions of time including 60 seconds = 1 minute, 60 minutes = 1 hour, 24 hours = 1 day and 7 days = 1 week and vice versa. Recall key conversions of distance including 10mm = 1cm, 100cm = 1m, 1000m = 1km and vice versa

Spring 1 Unit 9 (Weeks 1 and 2): Place Value

Lesson	Starter	Lesson Focus
1	Use a mental partitioning strategy to add a two-digit number to another two- or three-digit number crossing the hundreds boundary	Identify the multiples of 1000 immediately before and after a given number Round numbers with up to four digits to the nearest thousand
2	Order numbers with different numbers of digits up to 10,000	Correctly place any number on a number line with multiples of 1000 marked but not labelled Correctly place any number on a number line with multiples of 1000 marked but not labelled with a variety of start and end points
3	Multiply T9 by a one-digit number	Label positive and negative numbers on a demarcated number line Place temperatures including negative numbers on a number line Count backwards through zero to include negative numbers
4	Partition numbers with one decimal place without the use of practical equipment into two groups where one group is a multiple of 1 in different ways	Make a number with 2 decimal places using straws and place value counters Use pictorial representations such as a 10 x 10 grid to show that $\frac{1}{100}$ of an object can be found by dividing the object into one hundred equal parts Understand the hundredths heading in place value columns represents a given number of fractional hundredths, e.g. $\frac{3}{100}$ is equal to 0.03 Recognise and write decimal equivalents for any number of hundredths less than $\frac{10}{100}$ e.g. $\frac{7}{100}$ is 0.07 Identify the value of each digit to two decimal places in a variety of ways
5	Use a counting on strategy to calculate a difference	Use pictorial representations such as a 10 x 10 grid (and number lines) to recognise that $\frac{1}{100}$ of an object can be found by dividing $\frac{1}{10}$ of the object into ten equal parts Recognise that $\frac{10}{100}$ is equivalent to $\frac{1}{10}$ or 0.1 Recognise that $\frac{20}{100}$ is equivalent to $\frac{2}{10}$ or 0.2 and so on Write any number of hundredths in fraction and decimal form

6	Identify the value of each digit to two decimal places in a variety of ways e.g. the value of the digit 7 in 53.27 is seven hundredths, $\frac{7}{100}$ or 0.07	Solve problems by using partitioning to calculate a three-digit number multiplied by a single digit number using grid method Estimate multiplication by rounding to the nearest multiple of 10 or 100 and using related facts e.g. $384 \times 6 \approx 400 \times 6$
7	Count backwards through zero to include negative numbers	Represent multiplication of three numbers using arrays e.g. $2 \times 3 \times 4$ can be shown using a 2×3 array four times Use commutativity to reorder multiplication of three numbers to simplify the calculation
8	Correctly place multiples of 0.01 on a number line with multiples of 0.1 marked but not labelled	Use inverse to check the answer to a calculation, e.g. $256 \div 4 = 64$ can be checked by carrying out the following calculation correctly: 64×4

Spring 1 Unit 11 (Weeks 4 and 5): Division

Lesson	Starter	Lesson Focus
1	Partition a four-digit number into two groups where one group is a multiple of 100 without practical equipment in a variety of ways,	Use partitioning to halve any four digit number where each digit is even Use partitioning to halve a number with ones and tenths where both digits are even
2	Use Venn and Carroll diagrams to sort numbers	Use partitioning to halve any four digit even number where some of the digits are odd e.g. 4524 could be partitioned into $4000 + 500 + 20 + 4$ or $4400 + 100 + 24$ Use partitioning to halve any number with ones and tenths where the tenths digit is even e.g. half of 3.6 could be partitioned into $3 + 0.6$ or $2 + 1.6$
3	Use related facts to multiply tens and ones by 5 by multiplying by 10 and halving.	Divide a two-digit number by a one-digit number using a partitioning strategy e.g. $96 \div 4$ becomes $(80 \div 4) + (16 \div 4)$
4	Write any number of hundredths in fraction and decimal form e.g. $\frac{47}{100}$ is 0.47	Divide three-digit numbers by a single digit number using the chunking method where there is no remainder e.g. $248 \div 4$
5	Compare and order two or more numbers with ones, tenths and hundredths	Divide three-digit numbers by a single digit number using the chunking method, making the calculation more efficient by subtracting more than one multiple of 10 of the divisor e.g. $248 \div 4$ by subtracting 240 (60 groups of 4) and 8 (2 groups of 4)
6	Divide a one-digit or two-digit number by 100	Divide three-digit numbers by a single digit number using the chunking method, making the calculation more efficient by subtracting more than one multiple of 10 of the divisor e.g. $248 \div 4$ by subtracting 240 (60 groups of 4) and 8 (2 groups of 4) Estimate division by rounding to the nearest multiple of 10 of the divisor and using related facts e.g. $352 \div 6 \approx 360 \div 6$

7	Recall multiplication and division facts for the 7 and 12 multiplication table	Use inverse to check the answer to a calculation, e.g. $78 \times 6 = 468$ can be checked by carrying out the following calculation correctly: $468 \div 6$
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Spring 1 Unit 12 (Week 6): Addition and Subtraction

Lesson	Lesson	Lesson
1	Use appropriate factor pairs and commutativity in mental calculations	Recognise calculations that require counting on or back mentally, bridging through a multiple of 10 efficiently
2	Identify missing numbers in a number sequence	Recognise calculations that require a mental compensation method

Spring 1 Unit 13 (Week 6): Fractions

Lesson	Starter	Lesson Focus
1	Use partitioning to double a number with ones and tenths, e.g. double 6.8	Where a fraction of an amount cannot be found by using known division facts, use pictorial representations, e.g. bar model, to find non-unit fractions of a set of objects, e.g. $\frac{3}{8}$ of 112
2	Compare and order unit fractions and fractions with the same denominators (including on a number line)	Use pictorial representations, such as fraction strips, to add fractions with the same denominator crossing a ones boundary, e.g. $\frac{5}{7} + \frac{4}{7} = \frac{9}{7}$ Add fractions with the same denominator crossing a ones boundary by adding the numerators
3	Use partitioning to halve any four digit number where each digit is even	Use pictorial representations, such as fraction strips, to subtract fractions with the same denominator crossing a ones boundary Subtract fractions with the same denominator crossing a ones boundary by subtracting the numerators, e.g. $\frac{15}{9} - \frac{8}{9} = \frac{7}{9}$