

Mastery Five Unit Overview: Spring Term 2

Use opportunities as part of the daily routine to tell the time.

At some point in each day, not necessarily the maths lesson, addition and subtraction facts (number Bonds to 10, 20 and 100) and multiplication and division facts for the 2 to 12 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 1000g = 1kg and vice versa and volume/capacity 1000ml = 1 litre and vice versa.

Recall multiplication and division facts for all the multiplication tables.

Use knowledge of place value and multiplication facts to derive related multiplication and division facts.

Spring 2 Unit 15 (Weeks 1 and 2): Fractions

Lesson	Starter	Lesson Focus
1	Order numbers including with up to three decimal places and where 0 is used as a place holder in any position	Use concrete materials or pictorial representations to demonstrate conversion from an improper fraction to a mixed number
2	Choose an appropriate mental strategy to solve a calculation based upon the numbers involved	Use multiples of the denominator to identify how many whole ones can be made from the improper fraction and how many fractional parts remain
3	Derive multiplication facts from known facts e.g. 1×, 2×, 5× and 10×	Identify, name and write equivalent fractions of a given fraction by using multiplication and division facts, e.g. $\frac{5}{7} = \frac{40}{56}$
4	Compare two fractions where the denominator of one fraction is a multiple of the denominator of the other fraction	Add fractions with denominators that are multiples of the same number where the answer is less than 1 Add fractions with denominators that are multiples of the same number where the answer is greater than 1
5	Use partitioning to double numbers including decimal numbers to two decimal places	Subtract fractions with denominators that are multiples of the same number Subtract fractions with denominators that are multiples of the same number that involve mixed numbers
6	Continue to read, write and convert time between analogue and digital 12- and 24-hour clocks	Add and subtract fractions with denominators that are multiples of the same number where the answer is > 1 and that involve mixed numbers
7	Identify common factors of two numbers including beyond known tables	Solve problems involving fractions

Spring 2 Unit 16 (Week 2): Geometry: 2-D and 3-D shape		
Lesson	Starter	Lesson Focus
1	Derive multiplication facts from known facts e.g. $1\times$, $2\times$, $5\times$ and $10\times$	Identify whether a shape is regular or irregular by measuring its side lengths and angles Measure lengths to the nearest millimetre (from Year 3) Distinguish between regular and irregular polygons based on reasoning about equal sides and angles
2	Divide a 4-digit number by a 1-digit number and interpret remainders appropriately for the context	Use the properties of rectangles to deduce related facts and find missing angles at a vertex when diagonals have been drawn and one angle is given Use the properties of rectangles to deduce related facts and find missing angles where the diagonals bisect when one angle is given
3	Identify cubes and cuboids from 2-D pictures of them Identify other 3-D shapes from 2-D pictures of them	Know that a 'net' is a flat shape that can be folded into a 3-D shape Identify a net of a cube from a range of nets Identify a net of other cuboids from a range of nets Identify a net of other prisms and pyramids from a range of nets

Spring 2 Unit 17 (Week 3): Measurement: volume		
Lesson	Starter	Lesson Focus
1	Multiply a 4 digit by a 1-digit number using grid method	Measure and record liquid volume
2	Multiply a 3 digit by a 2-digit number using grid method	Calculate the area of rectangles
3	Estimate the capacity of different containers Estimate the volume of liquid in a container	Understand that the units of liquid volume ml and units of solid volume cm^3 have the same value
4	Solve addition and subtraction calculations with missing numbers	Find the volume of different cuboids by counting cubes efficiently Recognise that a cube number is the product of three equal integers and can be written using 3 notation
5	Derive multiplication facts from known facts e.g. $1\times$, $2\times$, $5\times$ and $10\times$	Use all four operations to solve problems involving volume using decimal notation, including scaling

Spring 2 Unit 18 (Week 4): Statistics		
Lesson	Starter	Lesson Focus
1	Derive related facts from a given multiplication fact	Solve comparison, sum and difference problems using information presented in all types of graph including a line graph Complete, read and interpret information in tables
2	Multiply $T0 \times T0$ using knowledge of factorising and tables facts	Complete and interpret information in a variety of sorting diagrams (including those used to sort properties of numbers and shapes)
3	Convert between metric units of measurement	Calculate the mode of a set of values Calculate the range of a set of values

4	Derive multiplication facts from known facts e.g. $1\times$, $2\times$, $5\times$ and $10\times$	Calculate the median for an odd number of values Calculate the median for an even number of values
5	Use knowledge of place value and multiplication facts to divide related decimal numbers where the dividend is scaled down	Solve problems involving mode, median and range

Spring 2 Unit 19 (Week 5): Problem Solving including Bar Modelling

Lesson	Starter	Lesson Focus
1	Solve multiplication and division calculations with missing numbers	Solve missing number problems involving all four operations
2	Add and subtract numbers with decimals using written methods	Solve missing number problems involving all four operations
3	Measure, draw and extend lines to the nearest mm	Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates
4	Measure and draw angles to the nearest degree	Solve problems involving fractions
5	Use partitioning to halve numbers including decimal numbers to two decimal places	Solve problems involving fractions

Spring 2 (Week 6): Assess and Review

Lesson	Starter	Lesson Focus
1	Use Starters this week to revisit and rehearse any previous starters that the children have found difficult	During this week, administer the end of term Arithmetic and Reasoning Tests. Any other time this week should be spent revisiting and rehearsing any aspects from the term that children have found difficult.
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3		
4		
5		