

Red Rose Mastery Maths Year Six Unit Overview: Autumn Term 1

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 1, 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.

Autumn 1 Unit 1 (Weeks 1 & 2): Place Value		
Lesson	Starter	Lesson Focus
1	Count on in powers of 10 from any number up to six digits	Identify and represent numbers up to 10,000,000 using place value counters and a place value chart Partition a seven-digit number into millions, hundred thousands, ten thousands, thousands, hundreds, tens and ones
2	Count back in powers of 10 from any number up to six digits	Identify and represent numbers with up to three decimal places using place value counters and a place value chart Partition a number with up to three decimal places into tens, ones, tenths, hundredths and thousandths
3	Recognise and write decimal equivalents of any number of fractional tenths, hundredths or thousandths	Compare and order numbers up to 10,000,000 Compare and order numbers with up to three decimal places
4	Manipulate the parts in an addition equation to make the calculation more efficient	Identify, represent and estimate numbers on a number line from 0 to 10,000,000 where the number line has ten demarcations Identify, represent and estimate numbers on a number line from 0 to 1 where the number line has ten demarcations
5	Manipulate the whole and one of the parts in a subtraction equation to make the calculation more efficient	Round any number up to 10,000,000 to the nearest 10, 100, 1,000, 10,000, 100,000 or 1,000,000
6	Recall multiplication and division facts up to 12×12	Round decimals with three decimal places to the nearest whole number e.g. 327.702 rounds to 328 Round decimals with three decimal places to the nearest tenth e.g. 327.702 rounds to 327.7
7	Multiply whole numbers and numbers with up to three decimal places by 10, 100 or 1,000	Find 1, 10, 100, 1,000, 10,000 or 100,000 more/less than a given number up to 10,000,000 including crossing any boundaries Find 0.001 more/less than a given number including crossing any boundaries
8	Divide whole numbers by 10, 100 or 1,000 and numbers with up to two decimal places by 10 and numbers with up to one decimal place by 100	Count forwards or backwards in steps of powers of 10 from any number up to 10,000,000

Autumn 1 Unit 2 (Weeks 2 and 3): Addition and Subtraction		
Lesson	Starter	Lesson Focus
1	Multiply $H00 \times T0$ and $Th000 \times T0$ using knowledge of factorising and tables facts	Recognise calculations that require mental partitioning e.g. $6,584 - 2,360$ or $873 + 350$ and use this strategy where appropriate
2	Use knowledge of place value and multiplication facts to divide related larger numbers	Recognise calculations that require counting on or back mentally, bridging efficiently e.g. $0.7 + 0.56$ becomes $0.7 + 0.3 + 0.26$ and use this strategy where appropriate
3	Multiply a 0.th number by a one-digit number using a partitioning strategy	Recognise calculations that require a mental compensation method e.g. $5.6 + 3.9$ becomes $5.6 + 4 - 0.1$ and use this strategy where appropriate
4	Identify related facts from known multiplication and division facts	Recognise calculations that require counting on mentally to find the difference e.g. $4.1 - 3.46$ and use this strategy where appropriate (This should be supported by a number line)
5	Recognise and solve calculations that involve known or related facts	Add whole numbers up to 10,000,000 Add numbers with up to three decimal places e.g. $2.65 + 354.682 + 64.7 + 24$ Round numbers to an appropriate power of 10 to estimate a calculation
6	Recognise that the numbers in calculations can be reordered to make calculating more efficient e.g. $54 - 65 + 39$ becomes $54 + 39 - 65$ and use this strategy where appropriate	Subtract whole numbers up to 10,000,000 Subtract numbers with up to three decimal places e.g. $834.2 - 58.829$ Round numbers to an appropriate power of 10 to estimate a calculation
7	Compare/classify geometric shapes based on the properties and sizes	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)

Autumn 1 Unit 3 (Weeks 4 & 5): Multiplication		
Lesson	Starter	Lesson Focus
1	Identify related facts from known multiplication and division facts	Use partitioning to double any number, including decimals to three decimal places Use partitioning to multiply a number with one decimal place by a single digit e.g. 4.3×8
2	Multiply $HT0 \times U$ using a partitioning strategy	Multiply whole numbers up to four digits by a one-digit number
3	Multiply three single-digit numbers	Multiply a number with two decimal places by a single digit Round numbers to an appropriate power of 10 to estimate a calculation

4	Multiply $H00 \times T0$ and using knowledge of factorising and tables facts	Multiply two-digit and three-digit whole numbers by a two-digit whole number using the formal written method of long multiplication Round numbers to an appropriate power of 10 to estimate a calculation
5	Multiply $Th000 \times T0$ using knowledge of factorising and tables facts	Multiply multi-digit numbers up to four digits by a two-digit whole number using the formal written method of long multiplication
6	Multiply a $U.th$ number by a one-digit number using a partitioning strategy	Use compensation strategy to multiply $U.9 \times U$ Use compensation strategy to multiply $U.99 \times U$
7	Complete and interpret information in a variety of sorting diagrams	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)

Autumn 1 Unit 4 (Weeks 5 & 6): Division		
Lesson	Starter	Lesson Focus
1	Identify related facts from known multiplication and division facts	Use partitioning to halve any number, including decimals to three decimal places
2	Identify common multiples of two numbers	Divide a 4-digit number by a 1-digit number and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
3	Identify missing numbers in addition equations	Divide a 3-digit number by a 2-digit number
4	Identify missing numbers in subtraction equations	Divide a 4-digit number by a 2-digit number
5	Position numbers on a number line within the range 0 to 10,000,000 where the number line has ten demarcations	Divide a 3-digit or 4-digit number by a 2-digit number and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
6	Position numbers on a number line from 0 to 1 where the number line has ten demarcations	Divide a four-digit number by a one-digit number using a partitioning strategy
7	Identify and position negative numbers on a number line.	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)
8		Learning Check