TOR VIEW

MATHS COMPOSITE KNOWLEDGE COVERAGE

KEY STAGE 3

Intent:

At Tor View School, we aim to instil in our students a fundamental understanding of how Mathematics links to the wider world. Mathematics equips students with a uniquely powerful set of tools to understand and change the world in which they live. Learning basic principles of maths is essential to functioning independently within the world. In everyday life we are faced with numbers, from getting the right bus, counting money in a shop to employment. Students understand and make connections in different areas of maths so they can apply skills to solve problems in a range of contexts.

At Tor View School, Maths is delivered using a spiral curriculum model to develop Mastery through revisiting learning to ensure learners have a deep understanding of concepts and their functional uses.

<table>
<tr><th colspan="2"></th><th>WEEK 1</th><th>WEEK 2</th><th>WEEK 3</th><th>WEEK 4</th><th>WEEK 5</th><th>WEEK 6</th><th>TAUGHT THROUGHOUT THE YEAR</th></tr>
<tr><td rowspan="2">Autumn</td><td>1</td><td colspan="3">NUMBER – PLACE VALUE
count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number
recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
compare and order numbers up to 1000</td><td colspan="3">NUMBER – ADDITION
add…numbers mentally, including:
a three-digit number and ones
a three-digit number and tens
a three-digit number and hundreds
add…numbers with up to three digits, using formal written methods of columnar addition…
estimate the answer to a calculation and use inverse operations to check answers</td><td rowspan="2">MEASUREMENT – TIME
tell…the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
estimate and read time with increasing accuracy to the nearest minute…use vocabulary such as o’clock, a.m./p.m.,</td></tr>
<tr><td>2</td><td colspan="3">NUMBER – SUBTRACTION
…subtract numbers mentally, including:
a three-digit number and ones
a three-digit number and tens
a three-digit number and hundreds
…subtract numbers with up to three digits, using formal written methods of columnar…subtraction
estimate the answer to a calculation and use inverse operations to check answers</td><td colspan="3">NUMBER – MULTIPLICATION
recall and use multiplication…facts for the 3, 4 and 8 multiplication tables
write and calculate mathematical statements for multiplication…using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods</td></tr>
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<tr><td rowspan="2">S
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g</td><td>1</td><td>NUMBER – DIVISION
recall and use…division facts for the 3, 4 and 8 multiplication tables
write and calculate mathematical statements for…division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods</td><td colspan="2">NUMBER – PLACE VALUE
count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number
recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
compare and order numbers up to 1000
identify, represent and estimate numbers using different representations
read and write numbers up to 1000 in numerals and in words</td><td rowspan="2">morning, afternoon, noon and midnight
know the number of seconds in a minute and the number of days in each month, year and leap year
compare durations of events [for example to calculate the time taken by particular events or tasks].</td></tr>
<tr><td>2</td><td colspan="2">NUMBER – FRACTIONS
count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10
recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators
recognise and show, using diagrams, equivalent fractions with small denominators
add and subtract fractions with the same denominator within one whole [for example, 5/7 + 1/7 = 6/7]
compare and order unit fractions, and fractions with the same denominators</td><td>NUMBER – SOLVING PROBLEMS
solve number problems and practical problems involving these ideas.
solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction
solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.
solve problems that involve fractions.</td></tr>
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<tr><td rowspan="2">S
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r</td><td>1</td><td>MEASURMENT – MONEY
, using both £ and p in practical contexts</td><td>STATISTICS
interpret and present data using bar charts, pictograms and tables
solve one-step and two-step questions [for example, ‘How many more?’ and ‘How many fewer?’] using information presented in scaled bar charts and pictograms and tables</td><td>MEASUREMENT – TIME
tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon and midnight
know the number of seconds in a minute and the number of days in each month, year and leap year
compare durations of events [for example to calculate the time taken by particular events or tasks].</td><td></td></tr>
<tr><td>2</td><td colspan="2">GEOMETRY – PROPERTIES OF SHAPES
draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them
recognise angles as a property of shape or a description of a turn
identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle
identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</td><td colspan="2">MEASUREMENT – LENGTH, PERIMETER, MASS & CAPACITY
measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
measure the perimeter of simple 2-D shapes</td><td></td></tr>
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