

Church Lane Primary School  
 and Nursery

Mathematics Curriculum

2020/2021

Year 2

Year 2 – Mathematics curriculum

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| Subject area | Overview | Lessons | Equipment | Key Vocab |
| Place Value | Number to 100 | Counting objects to 100 | Blank number lines  Countable objects  Bead strings | Less than, fewer, smaller, less  Greater than, larger, bigger, more  Equal to  Greatest, biggest  Fewest, smallest  Tens, ones  How many?, count, partition  Place value grid, part-whole model |
| Representing numbers to 100 |
| Tens and ones (1) |
| Tens and ones (2) |
| Representing numbers on a place value grid |
| Comparing numbers (1) |
| Comparing numbers (2) |
| Ordering numbers |
| Counting in 2s, 5s, 10s |
| Counting in 3s |
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| Addition and subtraction | Adding and subtracting | Related facts – addition and subtraction | Cubes  Counters  Blank part-whole model  Blank addition and subtraction calculation scaffolds  Base 10 equipment  Digit cards  Physical resources to make parts and wholes | Part, whole. Part-whole  Add, added, plus, total, altogether, sum, calculation  Count, count on, count back, left  Subtract, take away, minus  Exchange, compare, greater than, less than, more, less  Ones, tens, 10 more, 10 less, place value, column, 1-digit number, 2-digit number  Number sentence, number bonds, known fact, fact family |
| Using number facts to check calculations |
| Comparing number sentences |
| Finding related facts |
| Making number bonds to 100 |
| Adding and subtracting 1s |
| Finding 10 more and 10 less |
| Adding and subtracting 10s |
| Adding a 2-digit and 1-digit number (1) |
| Adding a 2-digit and 1-digit number (2) |
| Subtracting a 1-digit number from a 2-digit number (1) |
| Subtracting a 1-digit number from a 2-digit number (2) |
|  |  |  |  |  |
| Addition and subtraction | Adding and subtracting larger numbers | Adding two 2-digit numbers (1) | Base 10 equipment  Place value grid  Straws  Elastic bands  Pictures of numbers made with base 10 equipment  Place value counters | Part, whole. Part-whole  Add, added, plus, total, altogether, sum, calculation  Count, count on, count back, left, difference  Subtract, take away, minus  Exchange, compare, greater than, less than, more, less, regroup, represent  Ones, tens, 10 more, 10 less, place value, column, 1-digit number, 2-digit number, bar model  Number sentence, number bonds, known fact, fact family |
| Adding two 2-digit numbers (2) |
| Subtracting a 2-digit number from another 2-digit number (1) |
| Subtracting a 2-digit number from another 2-digit number (2) |
| Subtracting a 2-digit number from another 2-digit number (3) |
| Subtracting a 2-digit number from another 2-digit number (4) |
| Adding three 1-digit numbers |
| Solving word problems – the bar model (1) |
| Solving word problems – the bar model (2) |
|  |  |  |  |  |
| Measure | Money | Counting money – coins | Currency (coins 1p - £2)  Base ten equipment  Currency (notes £5 - £20)  Sorting hoops  trays | Money, coins, notes  Pounds (£), pence (p)  Change, left, right, money, buy(s), spend, step  How much?, value, amount total, altogether, parts, between, difference  Count on, sort, match, compare, add, addition, calculate, subtraction  Great(er/est), smallest, exact(ly), higher, lower, most, least  More than, less than, equal  Part-whole model, number line, bar model |
| Counting money – notes |
| Counting money – coins and notes |
| Showing equal amounts of money (1) |
| Showing equal amounts of money (2) |
| Comparing amounts of money |
| Calculating the total amount |
| Finding change |
| Solving two-step word problems |
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| Multiplication and division | Multiplying | Making equal groups | Counters  Multilink cubes  Classroom objects in equal groups that make a clear distinction between the objects put into groups and what the groups are (such as pens in packs, eggs in egg boxes) | Equal groups  Repeated addition  Skip counting  Number in a group  Number of groups  Times  Times-table  Multiply/ multiplication  More than, less than  Array  Rows /columns  Bar model  Equal parts  Number of equal parts  Times bigger/ times taller/  Times greater  Twice as big |
| Multiplication as equal groups |
| Adding equal groups |
| Multiplication sentences |
| Using array |
| 2 times-table |
| 5 times-table |
| 10 times-table |
| Solving word problems - multiplication |
|  |  |  |  |  |
| Multiplication and division | Dividing | Making equal groups | Counters  Blank number lines  Cubes | Divide, division, the division sign  Share  Group  Odd, even  Times-tables  Equal groups, number of groups |
| Sharing and grouping |
| Dividing by 2 |
| Odd and even numbers |
| Dividing by 5 |
| Dividing by 10 |
| Bar modelling – grouping |
| Bar modelling – sharing |
| Solving word problems division |
|  |  |  |  |  |
| Statistics | Recording, Representing and interpreting data | Making tally charts | Number lines  Counters  Ruler  Counting in 5s number line | Tally chart, tally  Pictogram  Block diagram  Table  More, less, most, least  Favourite, popular  Equal  Represent, symbol, key, information  Total, altogether  Compare |
| Creating pictograms (1) |
| Creating pictograms (2) |
| Interpreting pictograms (1) |
| Interpreting pictograms (2) |
| Block diagrams |
| Solving word problems |
|  |  |  |  |  |
| Measure | Length and height | Measuring in centimetres | Rulers  Selection of objects to measure  Interlocking centimetre cubes | Length, height  Width, distance  Long, longer, short, shorter  Tall  Metres, centimetres  Order, compare  Ruler, measure stick  Measure  Zero  Greater than, less than, equal to |
| Measuring in metres |
| Comparing lengths |
| Ordering lengths |
| Solving word problems - length |
|  |  |  |  |  |
| Shape | Properties of shape | Recognising 2D and 3D shapes | A range of 2D and 3D shapes with labels  Materials for printing with 3D shapes | Circle, semicircle  Oval, triangle, square, rectangle, quadrilateral  Polygon, pentagon, hexagon, octagon  Sphere, hemisphere  Cone, ovoid, cylinder  Triangle-based pyramid, square-based pyramid, pentagon-based pyramid, hexagon-based pyramid  Cube, cuboid  Triangular prism, pentagonal prism, hexagonal prism  2D, 3D  Properties  Side, vertex, vertices, edge, face  Pattern  Symmetry, symmetrical, line of symmetry  Curved surface |
| Drawing 2d shapes |
| Counting sides on 2D shapes |
| Counting vertices on 2D shapes |
| Finding lines of symmetry |
| Sorting 2D shapes |
| Making patterns with 2D shapes |
| Counting faces on 3D shapes |
| Counting edges on 3D shapes |
| Counting vertices on 3D shapes |
| Sorting 3D shapes |
| Making patterns with 3D shapes |
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| Fractions | Recognising, finding and understanding fractions | Introducing whole and parts | Sentence scaffolds  Objects in classroom that contain multiple parts (pencil cases that contain multiple parts) | Fraction  Half, quarter, third  Whole  Part, equal part  Numerator, denominator  Fraction bar  Unit fraction, non-unit fraction  Equivalent  Three-quarters  Equal  Divided by  Odd, even  Share  pattern |
| Making equal parts |
| Recognising a half (1/2) |
| Finding a half |
| Recognising a quarter (1/4) |
| Finding a quarter |
| Unit fractions |
| Understanding other fractions |
| ½ and 2/4 |
| Finding 3/4 |
| Understanding a whole |
| Understanding whole and parts |
| Counting in halves |
| Counting in quarters |
|  |  |  |  |  |
| Shape | Position and direction | Describing movement | Laminated grids  Objects (including 2D and 3D shapes) | Quarter turn, half turn, whole turn  Clockwise, anti-clockwise  Forwards, backwards  Left, right, up, down  Turn, middle,  Position, pattern  Above, below, top, bottom, between  Cube, cylinder, circle, semi-circle, triangle, rectangle, square |
| Describing turns |
| Describing movement and turns |
| Making patterns with shapes |
|  |  |  |  |  |
| Four operations | Problem solving and efficient methods | My way, your way! | Coins  Completed number line  Blank number line  Completed bar model  Coloured rods | Part, whole, part-whole  Add, addition, more than, +  Subtract, subtraction, difference, change, take away, less than, -  Divide, division, share  Multiply, multiplication, lots of, X  Altogether, groups of, total, sum, total cost  Representation, bar model, efficient |
| Using number facts |
| Using number facts and equivalence |
| Using a 100-square |
| Getting started |
| Missing numbers |
| Mental addition and subtraction (1) |
| Mental addition and subtraction (2) |
| Efficient subtraction |
| Solving problems – addition and subtraction |
| Solving problems – multiplication and division |
| Solving problems using the four operations |
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| Measure | Time | Telling and wiring the time to the hour and half hour |  | Hands, face, hour, minute, analogue  O’clock, part, to, half past, quarter past, quarter to, quarter of an hour  Almost, same, units, last, convert, how long, left, passed, shorter, longer, faster, slowest  Five, ten, fifteen, twenty, twenty-five, thirty, thirty-five, forty, forty-five, fifty, fifty-five, sixty  5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60  Time, start time, end time, duration, time taken, finish, forwards, backwards, twice  24 hours, day, daytime, night time, around the clock, am, pm  Midday, midnight, morning, afternoon |
| Telling the time to the quarter hour |
| Telling the time to 5 minutes |
| Minutes in an hour |
| Finding duration of time |
| Comparing durations of time |
| Finding the end time |
| Finding the start time |
| Hours in a day |
|  |  |  |  |  |
| Measure | Weight, volume and temperature | Comparing mass | Balance scales  Range of objects of different masses | Balance, comparing, estimating, reasoning, accurately, total, scale, interval  100s, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000  Mass, weight, grams, kilograms, kilos  Volume, capacity, millilitres, litres  Temperature, thermometer, degrees Celsius  More than, less than, identical, divide  Heavier, heaviest, lighter, lightest  Greater, greatest, least, smaller, smallest, full, half, three-quarters, quarters, nearest to, times as much  Hotter, hottest, warmer, warmest, colder, coldest, cooler, coolest |
| Measuring mass in grams (1) |
| Measuring mass in grams (2) |
| Measuring mass in kilograms |
| Comparing volume |
| Measuring volume in millilitres (1) |
| Measuring volume in millilitres (2) |
| Measuring volume in litres |
| Measuring temperature using a thermometer |
| Reading thermometers |
|  |  |  |  |  |

At the end of each **unit**, please allow ALL pupil to independently complete the end of unit assessment. This can be found on your PowerMaths online account.

* Click on your unit (left hand side)
* Scroll down to the bottom of the screen to find ‘assess’ menu.
* Print off end of unit test and stick it in their book.

At the end of each **term** (Autumn, Spring, Summer), please complete the end of term assessments from White Rose Maths. These can be find using the web address: <https://whiterosemaths.com/resources/assessment/primary-assessment/end-of-term-primary/>

Displays should be a ‘working wall’ including **up-to-date** information and pupil work. It should also include questions and challenges. It **must** show the **progressive journey** your class have been on throughout that unit.

All classrooms should follow the colour co-ordinated questions:

Orange – fluency (no worded response necessarily required, although KS2 should request pupils to answer using Stem sentences E.G 2 + 2 = The total of 2 plus 2 is 4)

Blue – reasoning – there should be a written worded response which is grammatically coherent with correct punctuation.

Green – problem solving – the children should show their workings (journey). We should be looking for and encouraging systematic approaches, using all prior knowledge not ‘trial and error’

**Next steps** should take learning to the next level. For example: a child has only completed fluency questions, their next step could be a reasoning or a pupil that has only completed fluency supported, then a fluency independently is a good next step.  
  
**Immediate interventions or pre-**learning should take place regularly with **ALL** pupils.