Hargrave
Park
School
MATHS READY TO PROGRESS CURRICULUM MAP
We Aim High
SKILLS, KNOWLEDGE AND UNDERSTANDING PROGRESSION

| YEAR | Number and place value | Number facts | Addition and subtraction | Multiplication and division | Fractions | Geometry | PROGRESSION |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | Powers of 10 from 1 hundredth to 10 million Place value to 10 million, including decimal fractions, partitioning. <br> Scales/number lines divided into $2,4,5$ and 10 . | Recall and apply: <br> - all number facts e.g. multiplication tables <br> - properties e.g. prime numbers to 19, factors | Understand that 2 numbers can be related additively Use a given additive calculation to derive or complete a related calculation, using properties, inverse and place-value Application to multistep problems, reasoning, investigation | Long division 4 by 2 Understand 2 numbers can be related multiplicatively Use a given multiplicative calculation to derive or complete a related calculation, using properties, inverse and place-value. <br> Solve ratio problems, two unknown problems | Simplify fractions Convert fractions to compare, including greater than 1 , Choose between reasoning and converting denominator as the comparison strategy | Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems | SKILLS |
| 5 | How many hundreds and tenths equivalent to 1. <br> Partition and reason numbers to 2 decimals places Divide 1 into 2, 4, 5 and 10 equal parts Convert units of measure | Practise and apply: <br> Multiplication and division facts. Recognise products as multiples. <br> Apply place-value to additive and multiplicative facts (scaling facts by $1 / 10$ and $1 / 100$ ) | Addition and subtraction column method up to one million <br> Application to multistep problems, reasoning, investigation | Multiply and divide by 10, 100, 1000 inc. decimals Common factors, multiples Short and long multiplication methods 4 by 1 or 2 digits Divide 4 by 1 | Non-unit fractions of quantities Equivalent fractions understand same position in number system Recall fraction/decimal equivalences: $1 / 2,1 / 4,1 / 5,1 / 10$ and multiples of these Convert mixed numbers to improper fractions and vice versa | Compare areas and calculate the area of rectangles (including squares) |  |
| 4 | Know 10 hundreds = 1 thousand; $1,000=10$ times size of 100 ; how many 100 s there are in other four-digit multiples of 100 . <br> Know and reason four-digit numbers using partitioning. Multiples of 1,000 and 100, and rounding to the nearest of each. | Multiplication and division facts to $12 \times 12$ <br> Recognise products as multiples. <br> Division problems by one digit divisors, remainders Apply place-value to additive and multiplicative facts (scaling facts by 100) | Four digit column method <br> Application of inverse to manipulate and solve calculations <br> Reasoning and problem solving | Multiply and divide whole numbers by 10 and 100 Manipulate multiplication and division calculations, commutative properties, distributive properties | Reason about the location of mixed numbers on the linear number system <br> Add and subtract improper and mixed fractions with the same denominator Convert mixed numbers to improper fractions and vice versa | Draw polygons, specified by coordinates and translate within the first quadrant. <br> Identify regular polygons, including equilateral triangles and squares, Perimeter of regular, irregular polygons Identify line symmetry in 2D shapes presented, reflect shapes |  |
| 3 | Know 10 tens $=1$ hundred, $100=10$ times size of 10 ; how many 10 s in three digit multiples of 10 . <br> Know and reason three-digit | addition and subtraction facts that bridge 10, multiplication and division facts: $2,4,8,5,10$ Apply place-value knowledge | Complements to 100 <br> Three digit column method Inverse and manipulate additive relationship Commutative property of | Apply known multiplication and division facts to solve contextual problems with different structures, | Interpret and write proper fractions to represent 1 Find unit fractions of quantities | Draw polygons by joining marked points, and identify parallel and perpendicular sides. Read, record and compare |  |


|  | numbers, using partitioning. Multiples of 100 and 10. Divide 100 into 2, 4, 5 and 10 equal parts | to known additive and multiplicative number facts (scaling facts by 10 ) | addition and relation to subtraction | including quotitive and partitive division. | Reason about the location of any fraction within 1 in the linear number system. Add/subtract fractions same denominator | time, nearest minute |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | Place value two-digit numbers, standard and nonstandard partitioning. Reason location of any two digit number, previous and next multiple of 10 . | Secure fluency in addition and subtraction facts within 10, through continued practice. Number properties reasoning. | Add and subtract across 10. <br> Understand 'difference' and 'how many more..' Add/subtract within 100 | Represent repeated addition with multiplication equations and calculating the product, within the 2 , 5 and 10 tables. | recognise, find, name and write fractions $1 / 3,1 / 4,2 / 4$ and $3 / 4$ of a length, shape, set of objects or quantity | estimate and measure length/height, ( $\mathrm{m} / \mathrm{cm}$ ); mass (kg/g); temperature $\left({ }^{\circ} \mathrm{C}\right)$; capacity (litres/ml) using rulers, scales, thermometers and measuring vessels. pounds ( $£$ ) and pence (p) Time to 5 minutes |  |
| 1 | Count within 100, forwards and backwards, starting with any number. <br> Reason about numbers to 20 within the linear number system, including comparing using < > and = | Addition and subtraction facts within 10 Count forwards and backwards odd numbers and in multiples of 2, 5 and 10, beginning with any multiple | Compose and partition numbers to 10 Read, write and interpret equations containing addition, subtraction and equals symbols Real life contexts | Begin recording multiples of 2,5 and 10 | recognise, find and name a half as 1 of 2 equal parts and a quarter as 1 of 4 of an object, shape or quantity. | Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations. |  |
| R | Count objects, actions and sounds <br> Subitise up to 5 objects <br> Link numeral with cardinal number value <br> Count beyond 10 <br> Recite numbers beyond 20 | Composition of numbers to 10 <br> Number bonds to 5 and 10 Identify odd and even numbers | One more and one less within 10 <br> Compose numbers to 10 Recall of number bonds to 5 and then 10 | Double facts within 10 Sharing objects into equal groups | Compare quantities up to 10 in different contexts | Select, rotate and manipulate shapes <br> Compose and decompose shapes <br> Continue, copy and create repeating patterns. Compare length, weight and capacity |  |
| N | Recite numbers past 5 Say one number for each item counted Know the last number reached when counting tells you how many there are. Subitise up to 3 objects | Show number fingers to 5 Solve real life number problems to 5 | To add and subtract one in practical activities | Sharing of everyday items between individuals or groups | Compare quantities using more than and fewer | Talk about the features of 2D and 3 D shapes <br> Select shapes appropriately when building Combine shapes to make bigger ones Identify patterns around us Make comparisons between objects relating to size, length, weight and capacity |  |

