******High View Primary Learning Centre**

Mathematics Curriculum

Our aim is for the pupils to have a comprehensive and cohesive mathematics education so that they leave High View as competent mathematicians. This will be achieved by using the DFE’s Ready to Progress Criteria as the foundations before moving to the National Curriculum objectives. Where the RTP (Ready to Progress) meets the NC (National Curriculum) objectives, these will be indicated with the reference numbers in the objectives. All objectives will be covered by the time the children leave Year 6 ensuring that they are fully prepared to continue their education.

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|  | FS1 | FS2 | Year1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Autumn | Number rhymes and songsCounting, ordinality and cardinalityShape SizePattern NumeralsCapacityPositional language‘More’  | Counting, ordinality and cardinalitySubitisingCompositionAddition and subtractionOne more/one less than ShapeLengthWeight  | Place ValueAddition and SubtractionShape | Place ValueAddition and subtractionMoneyMultiplication and division | Place valueAddition and subtractionMultiplication and division | Place ValueAddition and subtractionPerimeterMultiplication and division | Place valueAddition and subtractionStatisticsMultiplication and divisionPerimeter and area | Place value4 operationsFractionsPosition and direction |
| Spring | Number rhymes and songsCounting, ordinality and cardinalityShapeSizeCapacityMore and lessMoney Days of the weekLengthPositional languagePattern | Counting, ordinality and cardinalitySubitisingCompositionAddition and subtractionOne more/one less thanShapeCapacityMoneyPatternEstimation | Addition and subtractionPlace ValueLength, heightWeight and volume | Multiplication and divisionShapeStatisticsFractionsLength and height | Multiplication and divisionStatisticsMoneyLength and perimeterfractions | Multiplication and divisionAreaFractionsDecimals | Multiplication and divisionFractionsDecimals and percentages | DecimalsPercentagesAlgebraMeasurementPerimeter area and volumeRatio |
| Summer | Number rhymes and songsCounting, ordinality and cardinalityShapeSequencing eventsCalculatingSeparatingMore than / fewer tham Sorting and classifyingRoutes and locationsWeight  | Counting, ordinality and cardinalitySubitisingCompositionAddition and subtractionMoneySharingDoublingHalvingCapacity | Multiplication and divisionFractionsPosition and directionPlace valueMoneytime | Position and directionProblem solvingTimeMeasurementinvestigations | FractionsTimeShapeMass and capacity | DecimalsMoney/TimeStatisticsShapePosition and direction | DecimalsShapePosition and directionConverting unitsVolume | ShapeProblem solvingStatisticsinvestigations |

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| Ready to Progress |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  | 3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. |  |  | 6F–1 Recognise whenfractions can besimplified, and usecommon factors tosimplify fractions. |
|  |  |  | 3F–2 Find unit fractions ofquantities using known division facts(multiplication tablesfluency). |  | 5F–1 Find non-unitfractions of quantities | 6F–2 Express fractions in a common denominationand use this to compare fractions that are similarin value. |
|  |  |  | 3F–3 Reason about the location of any fraction within 1 in the linear number system. | 4F–1 Reason about the location of mixednumbers in the linearnumber system. |  | 6F–3 Compare fractions with different denominators, including fractions greater than 1,using reasoning, andchoose betweenreasoning and commondenomination as acomparison strategy. |
|  |  |  |  | 4F–2 Convert mixednumbers to improperfractions and vice versa. | 5F–2 Find equivalentfractions and understandthat they have the same value and the same position in the linear number system  |  |
|  |  |  | 3F–4 Add and subtract fractions with the samedenominator, within 1. | 4F–3 Add and subtract improper and mixedfractions with the same denominator, including bridging whole numbers. | 5F–3 Recall decimalfraction equivalents for ½ ,1/4 , 1/5 and 1/10, and for multiples of theseproper fractions. |  |

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| **NATIONAL CURRICULUM** |
| Counting Fractional Steps  |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| . |  | *Pupils should count in fractions up to 10, starting from any number and using the1/2 and 2/4 equivalence on the number line (Non Statutory Guidance)* | count up and down in tenths | count up and down in hundredths |  |  |
| Recognising Fractions |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  | recognise, find and name a half as one of two equal parts of an object, shape or quantity  | recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity  | 3F–1 recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators  | recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten | recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (appears also in Equivalence) |  |
|  | recognise, find and name a quarter as one of four equal parts of an object, shape or quantity |  | recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10. |  |  |  |
|  |  |  | recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators |  |  |  |
| **Comparing Fractions** |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|   |  |  | 3F–3 compare and order unit fractions, and fractions with the same denominators  | 4F–1 | 5F–2 compare and order fractions whose denominators are all multiples of the same number  | 6F–3 compare and order fractions, including fractions >1  |
| **Comparing Decimals** |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  |  | compare numbers with the same number of decimal places up to two decimal places  | read, write, order and compare numbers with up to three decimal places | identify the value of each digit in numbers given to three decimal places  |
| **Rounding including Decimals** |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  |  | round decimals with one decimal place to the nearest whole number  | round decimals with two decimal places to the nearest whole number and to one decimal place | solve problems which require answers to be rounded to specified degrees of accuracy  |
| EQUIVALENCE (INCLUDING FRACTIONS, DECIMALS AND PERCENTAGES) |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  | write simple fractions e.g. 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2. | recognise and show, using diagrams, equivalent fractions with small denominators  | recognise and show, using diagrams, families of common equivalent fractions  | 5F–2/5F–3 identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths  | 6F–1/6F–2 use common factors to simplify fractions; use common multiples to express fractions in the same denomination  |
|  |  |  |  | recognise and write decimal equivalents of any number of tenths or hundredths | read and write decimal numbers as fractions (e.g. 0.71 = 71/100)  | associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8)  |
|  |  |  |  |  | recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents |  |
|  |  |  |  | recognise and write decimal equivalents to 1/4; 1/2; 3/4  | recognise the per cent symbol (%) and understand that per cent relates to “number of parts per hundred”, and write percentages as a fraction with denominator 100 as a decimal fraction | recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. |
| ADDITION AND SUBTRACTION OF FRACTIONS |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  | 3F–4 add and subtract fractions with the same denominator within one whole (e.g. 5/7 + 1/7 = 6/7)  | 4F–3 add and subtract fractions with the same denominator  | add and subtract fractions with the same denominator and multiples of the same number  | add and subtract fractions with different denominators and mixed numbers, using theconcept of equivalent fractions  |
|  |  |  |  |  | recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. 2/5 + 4/5 = 6/5 = 11/5) |  |
| MULTIPLICATION AND DIVISION OF FRACTIONS |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  |  |  | 5F–1 multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams  | multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. 1/4 × 1/2 = 1/8) |
|  |  |  |  |  |  | multiply one-digit numbers with up to two decimal places by whole numbers  |
|  |  |  |  |  |  | divide proper fractions by whole numbers (e.g. 1/3 ÷ 2 = 1/6 ) |
| MULTIPLICATION AND DIVISION OF DECIMALS |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  |  |  |  | multiply one-digit numbers with up to two decimal places by whole numbers  |
|  |  |  |  | find the effect of dividinga one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths  |  | multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places |
|  |  |  |  |  |  | identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100and 1000 where the answers are up to three decimal places  |
|  |  |  |  |  |  | associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8)  |
|  |  |  |  |  |  | use written division methods in cases where the answer has up to two decimal places |
| Problem Solving |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  |  |  | solve problems that involve all of the above | solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number  | solve problems involving numbers up to three decimal places  |  |
|  |  |  |  | solve simple measure and money problems involving fractions and decimals to two decimal places. | solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those with a denominator of a multiple of 10 or 25. |  |

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| VOCABULARYThese are the words that pupils will know, use and understand.The pupils will know, use and understand the words in their current year group and the prior years.  |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Parts of a whole, half, quarter | Fraction, equal part, equal grouping, equal, one of two equal parts, one of four equal parts | equivalent fraction, mixed number, numerator, denominator two halves, two quarters, three quarters, one third, two thirds, one of three equal parts | sixths, sevenths, eighths, tenths … | hundredths, decimal, decimal fraction, decimal point, decimal place, decimal equivalent, proportion | proper/improper fraction equivalent, reduced to, cancel,, thousandths, in every, for every percentage, per cent, % | ratio Formula, formulae**,** equation**,** unknown**,** variable |