******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 |
| Understand the cardinal value of number words, for example understanding that ‘four’ relates to 4 objects. Subitise for up to to 5 items. Automatically show a given number using fingers. | AS–1 Composenumbers to 10 from 2parts, and partitionnumbers to 10 into parts, including recognising oddand even numbers. | 2AS–1 Add and subtractacross 10. | 3AS–1 Calculatecomplements to 100 |  |  | 6AS/MD–1 Understandthat 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships(multiplicativerelationships restricted tomultiplication by a whole number). |
| Devise and record numberstories, using pictures,numbers and symbols(such as arrows). | 1AS–2 Read, write and interpret equationscontaining addition (), subtraction ( ) andequals ( ) symbols, and relate additiveexpressions andequations to real-lifecontexts. | 2AS–2 Recognise thesubtraction structure of‘difference’ and answerquestions of the form,“How many more…?”. | 3AS–2 Add andsubtract up to three-digitnumbers using columnarmethods. |  |  | 6AS/MD–2 Use a given additive or multiplicativecalculation to derive or complete a relatedcalculation, usingarithmetic properties,inverse relationships, and place-valueunderstanding. |
|  |  | 2AS–3 Add and subtractwithin 100 by applyingrelated one-digit additionand subtraction facts: addand subtract only ones oronly tens to/from a twodigit number. | 3AS–3 Manipulate the additive relationship:Understand the inverse relationship between addition and subtraction,and how both relate to the part–part–whole structure.Understand and use the commutative property of addition, and understandthe related property for subtraction. |  |  | AS/MD–3 Solveproblems involving ratio relationships. |
|  |  | 2AS–4 Add and subtractwithin 100 by applyingrelated one-digit addition and subtraction facts: addand subtract any 2 two digit numbers. |  |  |  | 6AS/MD–4 Solveproblems with 2unknowns. |

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| **NATIONAL CURRICULUM** |
| Number Bonds  |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| • Automatically recall number bonds for numbers 0-5 and some to 10.. | AS–1represent and use number bonds and related subtraction facts within 20  | 2AS–1 recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100  |  | count backwards through zero to include negative numbers  | interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero | use negative numbers in context, and calculate intervals across zero  |
| Mental Calculations |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| - Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts. | AS–1add and subtract one-digit and two-digit numbers to 20, including zero  | 2AS–1/2AS–32AS–4 / 3AS–1add and subtract numbers using concrete objects, pictorial representations, and mentally, including: * a two-digit number and ones
* a two-digit number and tens
* two two-digit numbers

adding three one-digit numbers  | 3AS–1add and subtract numbers mentally, including: * a three-digit number and ones
* a three-digit number and tens
* a three-digit number and hundreds
 |  | add and subtract numbers mentally with increasingly large numbers  | 6AS/MD–1perform mental calculations, including with mixed operations and large numbers |
|  | 1AS–2 read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Written Methods) | show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot  |  |  |  | 6AS/MD–2use their knowledge of the order of operations to carry out calculations involving the four operations  |
| **Written Methods**  |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|   | 1AS–2 read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Mental Calculation) |  | 3AS–2add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction  | add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate  | add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)  |  |
| Inverse operations, estimating and checking answers |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Experiment with their own symbols and marks as well as numerals.Link the number symbol (numeral) with its cardinal number value. | recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. | estimate the answer to a calculation and use inverse operations to check answers  | 3AS–3 recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. | estimate the answer to a calculation and use inverse operations to check answers  | recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. | estimate the answer to a calculation and use inverse operations to check answers  |
|  |  | *solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change* (copied from Measurement) |  |  |  | 6AS/MD–2 Solve problems involving addition, subtraction, multiplication and division |
| **Problem Solving** |
| EYFS/Development matters/ Previous knowledge | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|  | solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = 🗆 - 9 | solve problems with addition and subtraction: * using concrete objects and pictorial representations, including those involving numbers, quantities and measures

applying their increasing knowledge of mental and written methods  | solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction  | solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why | solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why | 6AS/MD–2 solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why |

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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 |
| Add, more, and, make, sum, total, altogetherDoubleOne more, two more….ten moreHow many more to make…?How many more is…. than …?How much more is ….? Take away, How many are left/left over? How many have gone? How many fewer is….. than….?How much less is..?One less, two less, ten less..Difference betweenGuess, how many ...? estimate, nearly, close to, about the same asjust over, just under, too many, too few, enough, not enough | addition, near double, half, halve subtract, equals, is the same as, number bonds/pairs, missing number roughly | one hundred more….. one hundred less facts tens boundary exact, exactly | hundreds boundary approximately, approximate, round, nearest, round to the nearest ten, hundredRound up, round down | thousand, | ones boundary, tenths boundary ten thousand, |  |