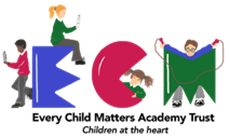
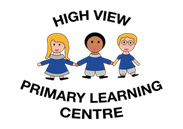
******High View Primary Learning Centre**

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.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | FS1 | FS2 | Year1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Autumn | Number rhymes and songs  Counting, ordinality and cardinality  Shape  Size  Pattern  Numerals  Capacity  Positional language  ‘More’ | Counting, ordinality and cardinality  Subitising  Composition  Addition and subtraction  One more/one less than  Shape  Length  Weight | Place Value  Addition and Subtraction  Shape | Place Value  Addition and subtraction  Money  Multiplication and division | Place value  Addition and subtraction  Multiplication and division | Place Value  Addition and subtraction  Perimeter  Multiplication and division | Place value  Addition and subtraction  Statistics  Multiplication and division  Perimeter and area | Place value  4 operations  Fractions  Position and direction |
| Spring | Number rhymes and songs  Counting, ordinality and cardinality  Shape  Size  Capacity  More and less  Money  Days of the week  Length  Positional language  Pattern | Counting, ordinality and cardinality  Subitising  Composition  Addition and subtraction  One more/one less than  Shape  Capacity  Money  Pattern  Estimation | Addition and subtraction  Place Value  Length, height  Weight and volume | Multiplication and division  Shape  Statistics  Fractions  Length and height | Multiplication and division  Statistics  Money  Length and perimeter  fractions | Multiplication and division  Area  Fractions  Decimals | Multiplication and division  Fractions  Decimals and percentages | Decimals  Percentages  Algebra  Measurement  Perimeter area and volume  Ratio |
| Summer | Number rhymes and songs  Counting, ordinality and cardinality  Shape  Sequencing events  Calculating  Separating  More than / fewer tham  Sorting and classifying  Routes and locations  Weight | Counting, ordinality and cardinality  Subitising  Composition  Addition and subtraction  Money  Sharing  Doubling  Halving  Capacity | Multiplication and division  Fractions  Position and direction  Place value  Money  time | Position and direction  Problem solving  Time  Measurement  investigations | Fractions  Time  Shape  Mass and capacity | Decimals  Money/Time  Statistics  Shape  Position and direction | Decimals  Shape  Position and direction  Converting units  Volume | Shape  Problem solving  Statistics  investigations |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 Compose  numbers to 10 from 2  parts, and partition  numbers to 10 into parts, including recognising odd  and even numbers. | 2AS–1 Add and subtract  across 10. | 3AS–1 Calculate  complements to 100 |  |  | 6AS/MD–1 Understand  that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships  (multiplicative  relationships restricted to  multiplication by a whole number). |
| Devise and record number  stories, using pictures,  numbers and symbols  (such as arrows). | 1AS–2 Read, write and interpret equations  containing addition (), subtraction ( ) and  equals ( ) symbols, and relate additive  expressions and  equations to real-life  contexts. | 2AS–2 Recognise the  subtraction structure of  ‘difference’ and answer  questions of the form,  “How many more…?”. | 3AS–2 Add and  subtract up to three-digit  numbers using columnar  methods. |  |  | 6AS/MD–2 Use a given additive or multiplicative  calculation to derive or complete a related  calculation, using  arithmetic properties,  inverse relationships, and place-value  understanding. |
|  |  | 2AS–3 Add and subtract  within 100 by applying  related one-digit addition  and subtraction facts: add  and subtract only ones or  only 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 understand  the related property for subtraction. |  |  | AS/MD–3 Solve  problems involving ratio relationships. |
|  |  | 2AS–4 Add and subtract  within 100 by applying  related one-digit addition and subtraction facts: add  and subtract any 2 two digit numbers. |  |  |  | 6AS/MD–4 Solve  problems with 2  unknowns. |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **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–1  represent 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–1  add and subtract one-digit and two-digit numbers to 20, including zero | 2AS–1/2AS–32AS–4 / 3AS–1  add 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–1  add 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–1  perform 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–2  use 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–2  add 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 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| VOCABULARY  These 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, altogether  Double  One more, two more….ten more  How 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 between  Guess, how many ...? estimate, nearly, close to, about the same as  just 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, hundred  Round up, round down | thousand, | ones boundary, tenths boundary ten thousand, |  |