Netherthorpe Primary School (updated December 2021)

**Maths Long Term Plan with Progression of Skills**

**Year 2**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Autumn** | | | | | |
| **Knowledge** | 2NPV–1 Place value in two-digit numbers  2NPV–2 Two-digit numbers in the linear number system | 2AS–1 Add and subtract across 10  2AS–2 Solve comparative addition and difference problems | 2NF-1 Secure fluency in addition and subtraction facts within 10, through continued practice. | 2AS–3 Add and subtract within 100 | 2MD–1 Multiplication as repeated addition |
| **Unit 1**  **Numbers 10 to 100** | **Unit 2**  **Calculations within 20** | **Unit 3**  **Fluently add and subtract within 10** | **Unit 4**  **Addition and Subtraction of two-digit numbers** | **Unit 5**  **Introduction to Multiplication** |
| **Progression of Skills** | * Explain that one ten is equivalent to ten ones * Represent multiples of ten using their numerals * Represent multiples of ten using their numerals and names * Represent multiples of ten in an expression or an equation * Estimate the position of multiples of ten on a 0-100 number line * Explain what happens when you add and subtract ten to a multiple of ten * Use knowledge of facts and unitising to add and subtract multiples of ten * Add and subtract multiples of ten * Explore the counting sequence for counting to 100 and beyond * Count a large group of objects by counting groups of tens and the extra ones * Count a large group of objects by using knowledge of unitising by counting tens and ones * Represent a number from 20-99 in different ways * Explain and mark the position of numbers 20-99 on a number line * Explain that numbers 20-99 can be represented as a length * Compare two, two-digit numbers * Partition a two-digit number into tens and ones * Add two, two-digit numbers by partitioning into tens and ones | * Add three addends * Use a ‘First... Then… Now” story to add 3 addends * Explain that addends can be added in any order * Add 3 addends efficiently * Add 3 addends efficiently by finding two addends that total Add two numbers that bridge through 10 * Subtract two numbers that bridge through 10 * Compare numbers and describe how many more or less there are in each set * Calculate the difference * Use knowledge of subtraction to solve problems in a range of contexts * Explain what the difference is between consecutive numbers * Calculate difference when information is presented in a pictogram * Calculate difference when information is presented in a bar chart | * Demonstrate their fluency of addition and subtraction within ten * Practise addition and subtraction strategies as required | * Add and subtract one to and from a two-digit number * Add and subtract one to and from a two-digit number that crosses a tens boundary * Add and subtract one from any two-digit number * Use number facts to add a single-digit number to a two-digit number * Use number facts to subtract a single-digit number from a two-digit number * Use a part-part-whole model to represent addition and subtraction * Use number bonds to ten to add a single-digit number to a two-digit number * Use number bonds to ten to subtract a single-digit number from a two-digit number * Use knowledge of ‘make ten’ to add a one-digit number to a two-digit number * Use knowledge of ‘make ten’ to subtract a multiple of ten or a single-digit from a two-digit number * Solve problems using knowledge of addition and subtraction * Find ten more or ten less than a two-digit number (1) * Find ten more or ten less than a two-digit number (2) * Add and subtract ten to/from a two-digit number * Explain the patterns when adding and subtracting ten * Use knowledge of adding and subtracting ten to solve problems * Use number facts to add a multiple of ten to a two-digit number * Use number facts to subtract a multiple of ten from a two-digit number * Partition a two-digit number into parts in different ways (two and three parts) * Use knowledge of adding and subtracting multiples of ten to solve problems | * Explain that objects can be grouped in different ways * Describe how objects have been grouped * Represent equal groups as repeated addition * Represent equal groups as repeated addition and multiplication * Represent equal groups as multiplication * Explain and represent multiplication when a group contains zero or one items * Identify and explain each part of a multiplication equation * Use knowledge of multiplication to calculate the product * Represent the two times table in different ways * Use knowledge of the two times table to solve problems * Explain the relationship between adjacent multiples of two * Explain that factor pairs can be written in any order * Represent counting in tens as the ten times table * Represent the ten times table in different ways * Explain the relationship between adjacent multiples of ten * Represent counting in fives as the five times table * Represent the five times table in different ways * Explain the relationship between adjacent multiples of five * Explain how groups of five and ten are related * Explain the relationship between multiples of five and ten * Use knowledge of the relationships between the five and ten times tables to solve problems * Explain how a factor of zero or one affect the product * Represent multiplication equations in different ways * Use knowledge of the two, five and ten times tables to solve problems (1) * Use knowledge of the two, five and ten times tables to solve problems (2) * Explain what each factor represents in a multiplication story * Explain what each factor represents in a multiplication story when one of the factors is one * Explain how a multiplication equation with two as a factor is related to doubling * Double two-digit numbers * Multiply efficiently when one of the factors is two * Explain how halving and doubling are related * Explain the relationship between factors and products * Halve two-digit numbers * Use knowledge of doubling, halving and the two times table to solve problems |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Spring** | | | | |
| **Knowledge** |  | 2MD–2 Grouping problems: missing factors and division. | 2G–1 Describe and compare 2D and 3D shapes | 2AS–4 Add and subtract within 100 (part 2) |
| **Unit 5**  **Continued** | **Unit 6**  **Introduction to division structures** | **Unit 7**  **Shape** | **Unit 8**  **Addition and subtraction of two digit numbers** |
| **Progression of Skills** |  | * Explain that objects can be grouped equally * Identify and explain when objects cannot be grouped equally * Explain the relationship between division expressions and division stories * Calculate the number of equal groups in a division story * Use their knowledge of skip counting and division to solve problems relating to measure * Skip count using the divisor to find the quotient * 7 Pupils use their knowledge of division to solve problems * Explain that objects can be shared equally * Use skip counting to solve a sharing problem * Skip count using the divisor to find the quotient * Solve a variety of division problems, explaining their understanding | * Learn that a polygon is a 2D shape with straight sides that meet at vertices * Describe polygons and find different ways to sort them * Learn that polygons can be sorted and named according to the number of sides and vertices * Discuss, and compare by direct comparison, the shape and size of polygons * Discuss, and compare by direct comparison, the vertices of polygons * Investigate how polygons can be joined and folded to form 3-dimensional shapes * Describe 3-dimensional shapes and find different ways to sort them * Discuss, and compare by direct comparison, the shape and size of 3-dimensional shapes | * Explain strategies used to add * Add a two-digit number to a two-digit number * Add a two-digit number to a two-digit number when not crossing ten (i) * Add a two-digit number to a two-digit number when not crossing ten (ii) * Add a two-digit number to a two-digit number when crossing ten * Explain strategies used to subtract * Subtract a two-digit number from a two-digit number * Partition the subtrahend to help with subtraction * Subtract a two-digit number from a two-digit number when not crossing ten (i) * Subtract a two-digit number from a two-digit number when not crossing ten (ii) * Subtract a two-digit number from a two-digit number when crossing ten * Subtract efficiently using knowledge of two-digit numbers |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Summer** | | | | | |
| **Unit 9**  **Money** | **Unit 10**  **Fractions** | **Unit 11**  **Time** | **Unit 12**  **Position and Direction** | **Unit 13**  **Multiplication and division – doubling, halving, quotitive and partition division.** | **Unit 14**  **Sense of measure – capacity, volume, mass.** |
| To be updated soon | | | | | |