Ferndale Primary and Nursery School
Year 2

Place value

♣count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward ♣ recognise the place value of each digit in a two-digit number (tens, ones)
♣ identify, represent and estimate numbers using different representations, including the number line
♣ compare and order numbers from 0 up to 100; use and = signs
♣ read and write numbers to at least 100 in numerals and in words
♣ use place value and number facts to solve problems

Language Enrichment	First Hand Experiences	Purpose / Life Skills	Previous Knowledge
Guess a number in 10 questions. What do oyu notice about the numbers? ___ more than ___ is ____.	- Using objects to count in class - Counting children in class when lining up - Times tables quizzes in class	- Recognise numbers to support later learning and job roles. - Understand greater than and less than numbers. - Recognise numbers to 100. - Understand numbers written as numerals and words.	• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens • given a number, identify one more and one less • identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least • read and write numbers from 1 to 20 in numerals and words.

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Addition and Subtraction

♣ 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

♣ recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100

♣ 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 ♣ show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot

♣ recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

Language Enrichment	First Hand Experiences	Purpose / Life Skills	Previous Knowledge
Problem of the day – children talk to partners Number ping pong – relating numbers and encouraging use of critical thinking. Which number is greater/less than … Can you explain why?	- visually shown addition and subtraction using pictorial and written methods - use of objects to show addition and subtraction - model examples	- understanding of adding numbers together - understanding of subtracting numbers - support with later learning and job roles.	• read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs • represent and use number bonds and related subtraction facts within 20 • add and subtract one-digit and two-digit numbers to 20, including zero • solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ___ – 9.

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Multiplication and Division

♣ recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers

♣ calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs

♣ show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot

♣ solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts

Language Enrichment	First Hand Experiences	Purpose / Life Skills	Previous Knowledge
Story –helps explore concept, repetition helps develop language used Tell me the story of how you got that number? Can you check? What could you use to help you? Multiplication shootout – encourages quick thinking but also allows for others to work out answers and talk about how they got there.	- visual, pictorial and concentrate methods taught - practical activities - model examples	- Understand multiplication and corresponding division facts - Support with later learning including different methods - Understanding a variety of methods to support learning	• solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

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Fractions , decimals and percentages

♣ recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity

♣ write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2 .

Language Enrichment	First Hand Experiences	Purpose / Life Skills	Previous Knowledge
What is the same? What is different? What can you tell me about equivalent fractions? Expand.. Problem solving activity – in groups/pairs.	- visual and pictorial examples - use of objects to show fractions - practical examples within class	- Understand how to solve fractions - Understand the importance of ½ or ¼ objects - Understand the equivalent factors of fractions and decimals.	• recognise, find and name a half as one of two equal parts of an object, shape or quantity • recognise, find and name a quarter as one of four equal parts of an object, shape or quantity

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Measure

♣ choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels
♣ compare and order lengths, mass, volume/capacity and record the results using >, < and =
♣ recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value
♣ find different combinations of coins that equal the same amounts of money
♣ solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
♣ compare and sequence intervals of time
♣ tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times
♣ know the number of minutes in an hour and the number of hours in a day.

Language Enrichment	First Hand Experiences	Purpose / Life Skills	Previous Knowledge
Toy shop – how much change? Do you need more or less? Measurement activity linked to Snail and the Whale How much more? Which holds the least?	- Measuring items - Using mass, capacity and measure - Visually showing the coins and values - Visual and practical methods for telling the time (using the clocks).	- Understand the different measures to support later learning and life. - Understand the value of coins - Understand how to tell the time using hours and minutes	• compare, describe and solve practical problems for: - lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] - mass/weight [for example, heavy/light, heavier than, lighter than] - capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] - time [for example, quicker, slower, earlier, later] ♣ measure and begin to record the following: - lengths and heights - mass/weight - capacity and volume - time (hours, minutes, seconds) ♣ recognise and know the value of different denominations of coins and notes

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			♣ sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] ♣ recognise and use language relating to dates, including days of the week, weeks, months and years ♣ tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.

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Geometry

♣ identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line
♣ identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces
♣ identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]
♣ compare and sort common 2-D and 3-D shapes and everyday objects.

Position and Direction

♣ order and arrange combinations of mathematical objects in patterns and sequences ♣ use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).

Language Enrichment	First Hand Experiences	Purpose / Life Skills	Previous Knowledge
Shape hunt - use of vocabulary Pattern recognition – partner talk using vocab provided on the board. Debate opportunities – Is a square a rectangle?	- practical activities using the shapes - visual activities in class to identify properties of shapes - visual and concrete models to show angles	- understand 2D and 3D shapes - understand how to identify rotation in a shape - use of mathematical vocabulary to support later learning	♣ recognise and name common 2-D and 3-D shapes, including: - 2-D shapes [for example, rectangles (including squares), circles and triangles] - 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].

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Statistics

♣ interpret and construct simple pictograms, tally charts, block diagrams and simple tables
♣ ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity
♣ ask and answer questions about totalling and comparing categorical data.

Language Enrichment	First Hand Experiences	Purpose / Life Skills	Previous Knowledge
Skittles - find out which colour is the most common. Sorting activity – why have you sorted like this? Is there any other way I could represent this information?	- whole class examples - collecting data and comparing through discussion - model examples - pictorial and concrete methods shown in class - demonstrating using different data in a table e.g. (tally chart into a pictogram). - Skittles – sort by colour	- understand how to present data in a table - understand the importance of collecting and comparing data - using numbers and totals to present data using different charts.	N/A