

# Place Value and Ordering : Maths : Year 4 : Autumn Term

|                 | Learning Objective  | Overview   | Assessment Questions   | Resources  |
|-----------------|---|--|--|--|
| <b>Lesson 1</b> | To be able to recognise the place value of each digit in a four-digit number. | Children will identify the value of each number in a four-digit number, after recapping the value of digits in two- and three-digit numbers. They will practise writing four-digit numbers in numerals and words, and start to order numbers.                        | <ul style="list-style-type: none"> <li>• Can children identify place value in four-digit numbers?</li> <li>• Can children write numbers in digits?</li> <li>• Can children write numbers in words?</li> </ul>                            | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 1A /1B</li> <li>• Number Cards</li> <li>• Question Cards</li> <li>• Digit Cards (FSD? activity only)</li> </ul>   |
| <b>Lesson 2</b> | To be able to order and compare numbers beyond 1,000.                         | Children will recap how to express four-digit numbers in numerals and words. They will then order three- and four-digit numbers, using partitioning to help identify whether a number is larger or smaller than another.   | <ul style="list-style-type: none"> <li>• Can children identify place value in four-digit numbers?</li> <li>• Can children order four-digit numbers?</li> <li>• Can children compare four-digit numbers?</li> </ul>                       | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 2A/2B/2C</li> <li>• Number Cards (FSD? activity only)</li> <li>• Question Cards (FSD? activity only)</li> <li>• paper (FSD? activity only)</li> </ul>                 |
| <b>Lesson 3</b> | To be able to find 1,000 more or less than a given number.                    | Children will start by identifying a number, saying it aloud and identifying the place value of each digit. They will then practically add and subtract 1000 from given numbers, some of which are expressed in numerals and some in words.                          | <ul style="list-style-type: none"> <li>• Can children identify place value in four-digit numbers?</li> <li>• Can children add 1,000 to a four-digit numbers?</li> <li>• Can children subtract 1,000 from a four-digit number?</li> </ul> | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 3A/3B/3C</li> <li>• Number Cards (FSD? activity only)</li> <li>• Partitioning Grid (FSD? activity only)</li> </ul>  |
| <b>Lesson 4</b> | To be able to count in multiples of 6, 7, 9, 25 and 1000.                     | Children will order numbers and work out how much they are increasing by in number sequences. The number sequences will increase in multiples of 6, 7, 9, 25 and 100. To challenge the children some of the sequences will start at a random number.                 | <ul style="list-style-type: none"> <li>• Can children identify place value in four-digit numbers?</li> <li>• Can children order numbers?</li> <li>• Can children continue a sequence of numbers?</li> </ul>                              | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 4A/4B/4C/4D</li> <li>• Number Cards (FSD? activity only)</li> <li>• Sequence Cards (FSD? activity only)</li> <li>• Multiples Cards 6/7/9/25/1000 (Plenary)</li> </ul> |
| <b>Lesson 5</b> | To be able to read Roman numerals to 100.                                     | Children will recap the Roman numerals 1-12 (in the context of a clock face). They will then be taught how to read and write Roman numerals to 100. They will explore how the Roman numeral system is different to the modern number system in terms of place value. | <ul style="list-style-type: none"> <li>• Can children read Roman numerals to 100?</li> <li>• Can children write Roman numerals to 100?</li> <li>• Are children aware that Roman numerals do not use place value?</li> </ul>              | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 5A/5B/5C/5D</li> <li>• Help Sheet</li> <li>• Code Cards (FSD? activity only)</li> </ul>   |

# Exploring Addition : Maths : Year 4 : Autumn Term

|                 | Learning Objective  | Overview   | Assessment Questions  | Resources  |
|-----------------|---|--|---|--|
| <b>Lesson 1</b> | To estimate, then add, three-digit numbers.   | Children will use rounding to estimate the answers to HTO+TO calculations (e.g. 347+33), then use partitioning to find the answers.  | <ul style="list-style-type: none"> <li>Can children accurately round numbers to the nearest ten or hundred?</li> <li>Can children estimate addition calculations by rounding?</li> <li>Can children partition two- and three-digit numbers, then add them?</li> </ul>   | <ul style="list-style-type: none"> <li>Slides</li> <li>Challenge Cards 1A/1B/1C</li> <li>Tiddlywinks Addition 1A/1B (FSD? activity only)</li> <li>Blank writing frames</li> <li>Plastic counters</li> </ul>  |
| <b>Lesson 2</b> | To add three- and four-digit numbers by partitioning.   | Children will use partitioning to add together two or more three- and four-digit numbers. To develop and consolidate their understanding of this strategy, children may either use maths resources to represent the partitioning they do, or describe the process in their own words.                      | <ul style="list-style-type: none"> <li>Can children use partitioning to solve three- and four-digit calculations?</li> <li>Can children use physical resources to represent partitioning?</li> <li>Can children use mathematical vocabulary to explain partitioning?</li> </ul>   | <ul style="list-style-type: none"> <li>Slides</li> <li>Challenge Cards 2A/2B/2C</li> <li>Monster Money 2A</li> <li>A range of maths resources (e.g. counters, number fans)</li> <li>Place Value 2A (FSD? activity only)</li> <li>Blank writing frames</li> </ul> |
| <b>Lesson 3</b> | To solve addition calculations using the formal written method.   | Children will use the formal addition method to solve HTO+TO, HTO+HTO and ThHTO+HTO calculations (none of the calculations in this lesson require exchanging between ones and tens or tens and hundreds; this is the focus of lesson 4 in this Complete Series).   | <ul style="list-style-type: none"> <li>Can children present addition calculations using the formal written method?</li> <li>Can children use maths vocabulary to explain how to use the formal written method?</li> <li>Can children estimate by rounding to help when checking their calculations?</li> </ul>                      | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 3A/3B/3C/3D</li> <li>Calculation Cards 3A (FSD? activity only)</li> <li>Blank writing frames</li> </ul>   |
| <b>Lesson 4</b> | To solve formal addition calculations where exchanging ones with tens, or tens with hundreds is required. | Children will learn how to solve more complex formal addition calculations, where exchanging between ones and tens and/or between tens and hundreds is required. They may then either practise calculations like these, or produce posters to show how to do formal addition where exchanging is required. | <ul style="list-style-type: none"> <li>Can children use the formal written method of addition where one or more exchange is required?</li> <li>Can children present formal written addition calculations clearly and neatly?</li> <li>Can children use maths vocabulary to explain how to use the formal written method?</li> </ul> | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 4A/4B/4C/4D</li> <li>Blank writing frames</li> <li>A range of maths resources (e.g. counters, number fans)</li> </ul>   |
| <b>Lesson 5</b> | To use the formal written method of addition to solve two-step problems.                                  | Children will use a range of strategies, including formal addition, to solve a variety of word problems and visual problems requiring addition calculations.   | <ul style="list-style-type: none"> <li>Can children identify key maths vocabulary in two-step problems?</li> <li>Can children use formal addition to solve two-step problems?</li> <li>Can children use maths vocabulary to explain strategies for solving two-step problems?</li> </ul>  | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 5A/5B</li> <li>Challenge Cards 5A/5B/5C/5D (FSD? activity only)</li> <li>Blank writing frames</li> </ul>  |

# Seeing Doubles : Maths : Year 4 : Autumn Term

|                 | Learning Objective  | Overview   | Assessment Questions  | Resources  |
|-----------------|---|--|---|--|
| <b>Lesson 1</b> | To be able to double numbers to 100.  | Children will identify the difference between doubling and halving before answering some quick-fire doubling questions, starting with numbers below thirty and working up to solve doubling questions with larger numbers up to a hundred. Children will match numbers to their doubles and practise quick recall of doubling facts.                       | <ul style="list-style-type: none"> <li>• Can children double numbers up to 30?</li> <li>• Can children double numbers up to 60?</li> <li>• Can children double numbers up to 100?</li> </ul>  | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Doubles Matching Cards 1A/1B/1C</li> <li>• Blank Doubles Matching Game</li> <li>• Number Cards A/B/C (FSD? activity only)</li> <li>• Calculators - optional (FSD? activity only)</li> </ul> |
| <b>Lesson 2</b> | To know doubles and halves of whole numbers to 100.                                       | Children will explore how to halve numbers below a hundred, starting with even numbers then moving on to looking at how to halve odd numbers, expressing the answer as a decimal. Children will practise rapid recall of doubling and halving facts.   | <ul style="list-style-type: none"> <li>• Can children double and halve numbers to 20?</li> <li>• Can children double and halve numbers to 50?</li> <li>• Can children double and halve numbers to 100?</li> </ul>   | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Double and Half Cards 2A/2B/2C</li> <li>• Game Board 2A/2B (FSD? activity only)</li> <li>• Dice and counters (FSD? activity only)</li> <li>• Calculators (FSD? activity only)</li> </ul>    |
| <b>Lesson 3</b> | To be able to double and halve numbers using appropriate methods, including partitioning. | Children will explore how to use partitioning to help them double larger two-digit numbers. They are encouraged to work out problems mentally before using written jottings to partition a number, double the tens and one, then add them together to find their answer. Higher-ability children will use this method to double small three-digit numbers. | <ul style="list-style-type: none"> <li>• Can children double numbers below 50?</li> <li>• Can children double any two-digit number?</li> <li>• Can children double small three-digit numbers?</li> </ul>  | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 3A/3B/3C</li> <li>• Game Board 3A/3B (FSD? activity only)</li> <li>• Calculator - optional (FSD? activity only)</li> </ul>  |
| <b>Lesson 4</b> | To be able to double three- and four-digit numbers using partitioning.                    | Children will partition three- and four-digit numbers and double each part of the decomposed number, before adding together vertically to find the answer. They are encouraged to identify problems that are correct and incorrect, and to solve problems mentally where possible.   | <ul style="list-style-type: none"> <li>• Can children answer two-digit by one-digit multiplication questions by repeated addition?</li> <li>• Can children answer two-digit by one-digit multiplication questions by partitioning?</li> <li>• Can children answer three-digit by one-digit multiplication questions by partitioning?</li> </ul> | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 4A/4B/4C</li> <li>• Calculation Cards 4A/4B (FSD? activity only)</li> <li>• Blank Calculation Cards (FSD? activity only)</li> </ul>   |
| <b>Lesson 5</b> | To be able to use the chunking method to divide three- and four-digit numbers.            | Children will be introduced to the chunking method of division in order to halve numbers by dividing by two. They will start with three-digit numbers and move to on four-digit numbers if appropriate.  | <ul style="list-style-type: none"> <li>• Can children do simple division calculations using a number line?</li> <li>• Can children answer two-digit by one-digit division calculations?</li> <li>• Can children answer three-digit by one-digit division calculations?</li> </ul>   | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 5A/5B/5C/5D/5E</li> <li>• Spinner (FSD? activity only)</li> </ul>   |

# Exploring Subtraction: Maths : Year 4 : Autumn Term

|                 | Learning Objective   | Overview  | Assessment Questions  | Resources  |
|-----------------|--|---|---|--|
| <b>Lesson 1</b> | To know how to use the constant difference method for subtraction                        | The lesson will begin with some quick-fire questions involving subtracting multiples of ten from two- and three-digit numbers. Children will then learn about the constant difference method, and how this can be used to make calculations easier, allowing them to be solved mentally. In their independent activities, children will apply this knowledge to sort and solve subtraction number sentences mentally.   | <ul style="list-style-type: none"> <li>Do children understand what the constant difference method is?</li> <li>Can children use the constant difference method to solve subtraction number sentences?</li> <li>Can children explain this method and justify their reasoning?</li> </ul>   | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 1A/1B/1C</li> <li>Sort 'n' Solve Cards A/B</li> <li>Sorting Sheet A/B</li> <li>Carry On Subtracting! Example Sheet (FSD? activity only)</li> <li>Carry On Subtracting! Challenge Cards A/B (FSD? activity only)</li> </ul>  |
| <b>Lesson 2</b> | To know how to use the decomposition method for subtraction                              | Children will first recap on their partitioning skills, before applying them in order to solve subtraction problems using the decomposition method. They will learn how to solve number sentences involving one and two exchanges. In their independent activities, children will race against a partner to solve questions quickly and accurately. Alternatively, they will play a game where they are rewarded points according to the number of exchanges in the sentences they solve.   | <ul style="list-style-type: none"> <li>Do children understand the decomposition method for subtraction?</li> <li>Can children successfully use the decomposition method to solve subtraction number sentences without exchanging?</li> <li>Can children successfully use the decomposition method to solve subtraction number sentences with exchanging?</li> </ul> | <ul style="list-style-type: none"> <li>Slides</li> <li>Match Up! Sheet A/B/C</li> <li>Calculation Cards A/B/C</li> <li>Exchange Rates Game (FSD? activity only)</li> <li>Exchange Rates Game Instructions (FSD? activity only)</li> <li>Solved it! Cards (FSD? activity only)</li> <li>Recording Sheet (FSD? activity only)</li> <li>Dice, coloured counters, Blu-Tack (FSD? activity only)</li> </ul> |
| <b>Lesson 3</b> | To know how to use the expanded column method for subtraction                            | In this lesson, children will look at the expanded column method for subtraction. They will briefly compare it with the decomposition method, before using it to solve subtractions involving one and two exchanges. Children will also spot mistakes in expanded column subtractions where the method has been used incorrectly. In their independent activities, children will match up the different parts of given expanded column method solutions. In the FSD? activity, they will be challenged to find what two numbers could be used to result in a given difference, according to set criteria. | <ul style="list-style-type: none"> <li>Do children understand the expanded column method for subtraction?</li> <li>Can children use the expanded column method to solve subtraction number sentences without exchanging?</li> <li>Can children use the expanded column method to solve subtraction number sentences with exchanging?</li> </ul>                     | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 3A/3B/3C</li> <li>Jigsaw Puzzle Pieces A/B/C</li> <li>Blank Jigsaw Sheet</li> <li>Challenge Cards (FSD? activity only)</li> </ul>   |
| <b>Lesson 4</b> | To know how to use the formal column method for subtraction                              | Children will compare the expanded column method with the formal column method. They will use the formal method to look at how to solve subtraction number sentences involving no exchanges, one exchange and finally two exchanges. Children will then use their knowledge of this method to complete column subtractions by placing missing digits in the correct row and column in order to give a specific difference. Alternatively, children are each given a unique three-digit number, then pair up with other children to make and solve subtractions with their numbers.                        | <ul style="list-style-type: none"> <li>Do children understand the formal column method of subtraction?</li> <li>Can children use the formal column method to solve subtraction problems involving exchanging?</li> <li>Can children use the formal column method to solve subtraction problems including zeros?</li> </ul>  | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 4A/B/C</li> <li>Pair Up! Cards (FSD? activity only)</li> <li>Pair Up! Recording Sheet (FSD? activity only)</li> </ul>   |
| <b>Lesson 5</b> | To know how to solve subtraction problems involving zeros using the formal column method | In this final lesson, children will focus on column subtractions that involve one or more zeros. They will learn how to exchange across them in order to complete the calculation. They will look at column subtractions involving three-digit and then four-digit numbers. In their independent activities, children will choose and solve subtractions of varying levels of difficulty.   | <ul style="list-style-type: none"> <li>Do children know how to solve a column subtraction which includes a zero?</li> <li>Do children know how to solve a column subtraction which includes more than one zero?</li> <li>Can children identify and correct errors in column subtractions?</li> </ul>  | <ul style="list-style-type: none"> <li>Slides</li> <li>Pick 'n' Mix Questions Sheet</li> <li>Worksheet 5A/5B/5C</li> <li>Calculation Cards A/B (FSD? activity only)</li> <li>Points Poster A/B (FSD? activity only)</li> </ul>   |

# Properties of 2D Shapes : Maths : Year 4 : Autumn Term

|                 | Learning Objective   | Overview   | Assessment Questions  | Resources   |
|-----------------|--|--|---|---|
| <b>Lesson 1</b> | To be able to identify and classify quadrilaterals.              | Children will classify and sort shapes according to size, angles, sides, symmetry etc. using Carroll diagrams, tables, or by colour-coding.  | <ul style="list-style-type: none"> <li>• Can children define a quadrilateral?</li> <li>• Can children identify a variety of different quadrilaterals?</li> <li>• Can children classify quadrilaterals based on their characteristics?</li> </ul>              | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Quadrilateral Key</li> <li>• Quadrilateral Colouring Sheet A/B/C</li> <li>• Worksheet 1A (FSD? activity only)</li> <li>• Quadrilateral Templates (FSD? activity only)</li> </ul> |
| <b>Lesson 2</b> | To be able to identify and classify triangles.                   | Children will learn about the properties of various triangles, then sort and compare them using tables or branching diagrams.  | <ul style="list-style-type: none"> <li>• Can children define a triangle?</li> <li>• Can children identify a variety of different triangles?</li> <li>• Can children classify triangles based on their characteristics?</li> </ul>                             | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 2A/2B/2C</li> <li>• Triangle Cards A/B</li> <li>• Triangle Key</li> <li>• Triangle Colouring Sheet A/B (FSD? activity only)</li> </ul>                                 |
| <b>Lesson 3</b> | To be able to measure and calculate the perimeter of a shape.    | Children will calculate the perimeter of shapes by measuring their sides and totalling these measurements. Optionally, children may order shapes according to their estimates of their perimeters.             | <ul style="list-style-type: none"> <li>• Do children understand what the term 'perimeter' means?</li> <li>• Can children calculate the perimeter of a shape?</li> <li>• Can children measure the perimeter of a shape?</li> </ul>                             | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 3A/3B/3C/3D/3E</li> <li>• Shape Cards A/B (FSD? activity only)</li> <li>• Masking tape and metre rulers - plenary</li> </ul>   |
| <b>Lesson 4</b> | To be able to calculate the area of a shape by counting squares. | Children will measure the area of rectangles and composite rectilinear shapes by counting squares.   | <ul style="list-style-type: none"> <li>• Do children understand the difference between perimeter and area?</li> <li>• Can children describe how to find the area of a shape?</li> <li>• Can children find the area of a shape by counting squares?</li> </ul> | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 4A/4B/4C</li> <li>• Squared paper (FSD? activity only)</li> </ul>  |
| <b>Lesson 5</b> | To be able to classify shapes according to their properties.     | Children will classify and sort a wide variety of shapes according to several criteria, showing what they have learned during previous lessons about the properties of 2-D shapes (polygons and non-polygons). | <ul style="list-style-type: none"> <li>• Can children describe a shape according to its properties?</li> <li>• Can children sort shapes according to their properties?</li> <li>• Can children use a variety of criteria to sort shapes?</li> </ul>           | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 5A/5B/5C</li> <li>• Shape Sheet</li> <li>• Shape Cards or 2D shapes (FSD? activity only)</li> <li>• Sticky notes (FSD? activity only)</li> </ul>                       |

# Recording Length: Maths: Year 4: Autumn Term

|                 | Learning Objective  | Overview  | Assessment Questions   | Resources  |
|-----------------|---|---|--|--|
| <b>Lesson 1</b> | To know how to estimate, measure and record length accurately | Children will discuss what length is and how it is measured. They will learn what each single unit of measurement looks like, and understand what an estimate is. Children will recap on how to measure accurately using a ruler, and know how to use decimal notation when recording lengths. In their independent activities, they will estimate, measure and record various lengths.   | <ul style="list-style-type: none"> <li>Do children know what length is?</li> <li>Can children estimate length appropriately?</li> <li>Can children use a ruler to measure accurately in cm and mm?</li> </ul>  | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 1A/B/C</li> <li>Rulers/tape measures/metre sticks</li> <li>String/wool</li> <li>Reading a Ruler Help Sheet</li> <li>Measurement Hunt Activity Sheet A/B (FSD? activity only)</li> </ul> |
| <b>Lesson 2</b> | To know how to convert measurements to different units        | Children will learn about the relationships between the different units of measurement. They will learn how to use their multiplication facts to convert from a larger unit of measurement to a smaller one, and their division facts to convert from a smaller unit of measurement to a larger one. Children will revisit their knowledge and understanding of place value in order to record measurements in decimal form where needed. | <ul style="list-style-type: none"> <li>Do children understand the terms 'convert' and 'conversion'?</li> <li>Can children convert from a larger unit of measurement to a smaller unit of measurement using their multiplication knowledge?</li> <li>Can children convert from a smaller unit of measurement to a larger unit of measurement using their division knowledge?</li> </ul> | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 2A/B/C</li> <li>Conversion Help Card</li> <li>Follow Me Set A/B/C (FSD? activity only)</li> </ul>   |
| <b>Lesson 3</b> | To know how to compare and order measurements of length       | Children will recap on their understanding of the relationship facts between the different units of length. They will then use this knowledge to compare and order lengths that are recorded in different units.  | <ul style="list-style-type: none"> <li>Can children recall the relationships between the different units of measurement?</li> <li>Can children apply their knowledge and understanding of converting lengths to different units of measurement?</li> <li>Can children order and compare different lengths accurately?</li> </ul>   | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 3A/B/C</li> <li>Frog Top Trumps (FSD? activity only)</li> </ul>   |
| <b>Lesson 4</b> | To know how to solve problems involving length                | Children will use their knowledge and understanding of how to convert between different units in order to solve one- and two-step addition and subtraction problems involving length.   | <ul style="list-style-type: none"> <li>Can children solve word problems involving length?</li> <li>Can children convert different units of measurement in order to solve word problems?</li> <li>Can children explain their reasoning?</li> </ul>  | <ul style="list-style-type: none"> <li>Slides</li> <li>Question Cards A/B/C</li> <li>Answer Cards A/B/C</li> <li>Frog Fact File (FSD? activity only)</li> <li>Frog Problems A/B (FSD? activity only)</li> </ul>  |
| <b>Lesson 5</b> | To apply your knowledge and understanding of length           | Children will revise what they have learnt over the last few lessons, before applying this knowledge to one of the independent activities. Children will either work in pairs to estimate, measure, record, convert and order measurements, or they will work as a group to conduct a length investigation.   | <ul style="list-style-type: none"> <li>Can children estimate different lengths appropriately?</li> <li>Can children accurately measure and record different lengths?</li> <li>Can children compare different lengths?</li> </ul>   | <ul style="list-style-type: none"> <li>Slides</li> <li>Metric Me worksheet A/B/C</li> <li>Rulers/tape measures/metre sticks</li> <li>Investigation Cards (FSD? activity only)</li> <li>Investigation Sheet (FSD? activity only)</li> </ul>               |

# Data Handling : Maths : Year 4 : Autumn Term

|                 | Learning Objective   | Overview  | Assessment Questions  | Resources   |
|-----------------|--|---|---|---|
| <b>Lesson 1</b> | To be able to answer a question by identifying what data to collect.         | Children will consider the need to provide a set of answers when collecting data to be presented using graphs and charts. They will then either plan for collecting data using tallies or collect and present data using a tally. | <ul style="list-style-type: none"> <li>• Can the children pose simple questions about data collection?</li> <li>• Can they suggest ways of collecting data?</li> <li>• Can they interpret the data they collect?</li> </ul> | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 1A/1B/1C/1D</li> <li>• Dice (FSD? activity only)</li> </ul>  |
| <b>Lesson 2</b> | To be able to use data to create a bar graph and interpret the information.  | Children will interpret data presented in tables and in bar charts, then either ask and answer questions about data in bar charts, or conduct a traffic survey.   | <ul style="list-style-type: none"> <li>• Can the children interpret a bar graph?</li> <li>• Can they present a bar graph?</li> <li>• Can they construct a bar graph?</li> </ul>   | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 2A/2B/2C/2D/2E</li> <li>• Graph paper</li> </ul>   |
| <b>Lesson 3</b> | To be able to choose the correct scale for the vertical axis in a bar graph. | Children will learn how to choose an appropriate scale for a bar chart, then draw bar charts with an appropriate scale on which to plot sets of data.   | <ul style="list-style-type: none"> <li>• Can the children interpret a bar graph?</li> <li>• Can they present a bar graph?</li> <li>• Can they construct a bar graph?</li> </ul>   | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 3A/3B/3C</li> <li>• Graph paper</li> <li>• Challenge Cards (FSD? activity only)</li> </ul>   |
| <b>Lesson 4</b> | To be able to use Venn diagrams to sort data and objects.                    | Children will learn how to use and read Venn diagrams with one intersection, then sort numbers or shapes according to two criteria using Venn diagrams.   | <ul style="list-style-type: none"> <li>• Do children understand what Venn diagrams are and how they are used?</li> <li>• Can they sort by two criteria?</li> <li>• Can they sort by three criteria?</li> </ul>              | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Mini whiteboards</li> <li>• Worksheet 4A/4B/4C</li> <li>• Skipping ropes or similar (FSD? activity only)</li> <li>• Criteria Cards (FSD? activity only)</li> </ul>     |
| <b>Lesson 5</b> | To be able to use Carroll diagrams to sort data and objects.                 | Children will learn how to interpret, and plot data using Carroll diagrams, then sort data either by using given criteria, or by choosing appropriate criteria.   | <ul style="list-style-type: none"> <li>• Do children understand what Carroll diagrams are and how they are used?</li> <li>• Can they sort by two criteria?</li> <li>• Can they sort by three criteria?</li> </ul>           | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Mini whiteboards</li> <li>• Worksheet 5A/5B/5C</li> <li>• Challenge Cards (FSD? activity only)</li> <li>• Blank Carroll Diagram sheet (FSD? activity ideas)</li> </ul> |

# Multiplication and Division Facts : Maths : Year 4 : Autumn Term

|                 | Learning Objective  | Overview  | Assessment Questions  | Resources   |
|-----------------|---|---|---|---|
| <b>Lesson 1</b> | To learn multiplication facts for the six and seven times tables.   | Children will identify multiples of six and multiples of seven. They will practise counting up in multiples of these numbers. They will use knowledge of other familiar times tables to answer questions and solve problems, including reasoning problems.  | <ul style="list-style-type: none"> <li>• Can children count in multiples of six and seven?</li> <li>• Do children know multiplication facts for the six times table?</li> <li>• Do children know multiplication facts for the seven times table?</li> </ul>   | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Game Board 1A/1B</li> <li>• Counters and dice</li> <li>• Multiplication Grid</li> <li>• Worksheet 1A</li> <li>• Clue Cards 1A/1B (FSD? activity only)</li> <li>• Hundred Squares (FSD? activity only)</li> </ul> |
| <b>Lesson 2</b> | To revise times table facts.  | Children will use a handy trick to help them learn their nine times table. They will consider the multiples of nine to twelve and identify patterns. They will answer quick-fire questions and play games to help them become more familiar both with the nine times table and other familiar times tables. | <ul style="list-style-type: none"> <li>• Can children recall multiplication facts for the six and seven times tables?</li> <li>• Can children recall multiplication facts for the nine times table?</li> <li>• Can children count in multiples of nine?</li> </ul>  | <ul style="list-style-type: none"> <li>• Slide</li> <li>• Game Cards 2A/2B/2C</li> <li>• Missing Number Cards 2A/2B (FSD? activity only)</li> </ul>   |
| <b>Lesson 3</b> | To be able to use repeated subtraction to solve division problems.  | Children will use their knowledge of multiples of six, seven and nine to complete missing number chains. They will learn how to use repeated subtraction on a number line to solve division problems that involve remainders. They will use knowledge of times tables to derive division facts.             | <ul style="list-style-type: none"> <li>• Can children count in multiples of six, seven and nine?</li> <li>• Can children use repeated subtraction to solve division problems?</li> <li>• Can children solve division problems involving remainders?</li> </ul>  | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 3A/3B/3C</li> <li>• Question Cards 3A/3B (FSD? activity only)</li> </ul>   |
| <b>Lesson 4</b> | To be able to use the chunking method to solve division problems.   | Children will recap the chunking method of division, considering how they can 'break up' a number into chunks to take away from a number, solving division problems by subtracting 'chunks'. They will consider the most effective way of breaking down a number.   | <ul style="list-style-type: none"> <li>• Can children use multiplication facts to help them solve division problems?</li> <li>• Can children use the chunking method to solve division problems?</li> <li>• Can children identify errors in a division calculation?</li> </ul>                                | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 4A/4B/4C</li> <li>• Multiplication Grid</li> <li>• Question Cards 4A/4B (FSD? activity only)</li> </ul>  |
| <b>Lesson 5</b> | To be able to use the grid method to solve multiplication problems. | Children will recap how to use the grid method to solve multiplication problems when multiplying by a single digit. They will then explore how to use the method to multiply numbers by two digits. They can solve problems and complete investigations using the grid method to help them.                 | <ul style="list-style-type: none"> <li>• Can children use their times table knowledge to derive associated multiplication facts?</li> <li>• Can children use the grid method to multiply numbers by a single digit?</li> <li>• Can children use the grid method to multiply numbers by two digits?</li> </ul> | <ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 5A/5B/5C</li> <li>• Multiplication Grid</li> <li>• Challenge Card 5A/5B (FSD? activity only)</li> <li>• Digit Cards (FSD? activity only)</li> </ul>  |



# Revising Multiplication and Division : Maths : Year 4 : Autumn Term



|                 | Learning Objective  | Overview  | Assessment Questions  | Resources   |
|-----------------|---|---|---|---|
| <b>Lesson 1</b> | To be able to use known multiplication facts to work out what a number has been multiplied or divided by. | Children use their knowledge of times tables to derive multiplication and division facts. They will work out what an input or output number has been multiplied or divided by on a function machine, and fill in missing input and output numbers when a function is given.   | <ul style="list-style-type: none"> <li>Can the children find the function for multiplication?</li> <li>Can they find the function for multiplication and division?</li> <li>Can they find the function when there is more than one operation?</li> </ul>  | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 1A/1B/1C/1D</li> <li>Disc cones, whiteboards and calculators (FSD? activity only)</li> </ul>                                 |
| <b>Lesson 2</b> | To be able to use known multiplication facts to solve problems.   | Children will identify factors of numbers and use their knowledge of times tables facts to complete missing number problems. They will then solve puzzles that involve identifying numbers that have been replaced by symbols.  | <ul style="list-style-type: none"> <li>Can children recall multiplication facts?</li> <li>Can children use multiplication facts to solve problems?</li> <li>Can children derive division facts from known multiplication facts?</li> </ul>  | <ul style="list-style-type: none"> <li>Slides</li> <li>Puzzle Sheet 2A/2B/2C</li> <li>Challenge Sheet 2A/2B (FSD? activity only)</li> <li>Multiplication Grid (FSD? activity only)</li> </ul> |
| <b>Lesson 3</b> | To be able to derive facts about a given number using knowledge of multiplication and division.           | Children will identify many different ways of using multiplication and division to reach a given number. They will use the commutative law to find multiple multiplication facts and recognise that division is not commutative.  | <ul style="list-style-type: none"> <li>Do children know that multiplication is commutative but division is not?</li> <li>Can children derive multiplication sentences for a given number?</li> <li>Can children derive division sentences for a given number?</li> </ul>                                | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 3A/3B/3C</li> </ul>  |
| <b>Lesson 4</b> | To be able to use multiplication and division to solve problems.  | Children will identify what calculation needs to be done to solve a problem and will use strategies such as the grid method and chunking method to solve multiplication and division questions in real-life contexts. Problems are set in the context of a farm.              | <ul style="list-style-type: none"> <li>Can children choose appropriate multiplication or division methods to solve problems?</li> <li>Can children use the grid method to solve multiplication calculations?</li> <li>Can children use the 'chunking' method to solve division calculations?</li> </ul> | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 4A/4B</li> <li>Fact Cards</li> <li>Challenge Cards 4A/4B/4C</li> </ul>   |
| <b>Lesson 5</b> | To use written methods of multiplication and division to solve problems.                                  | Children will identify what calculation needs to be done to solve a problem and will use strategies such as the grid method and chunking method to solve multiplication and division questions in real-life contexts. Problems are set in the context of planning a festival. | <ul style="list-style-type: none"> <li>Can children decide on appropriate methods for solving one- and two-step problems?</li> <li>Can children use the 'grid' method of multiplication to solve problems?</li> <li>Can children use the 'chunking' method of division to solve problems?</li> </ul>    | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 5A/5B/5C</li> <li>Worksheet 5D/5E (FSD? activity only)</li> </ul>  |

# Fractions and Time : Maths : Year 4 : Autumn Term

|                 | Learning Objective   | Overview  | Assessment Questions  | Resources   |
|-----------------|--|---|---|---|
| <b>Lesson 1</b> | To be able to identify the value of tenths and hundredths in a number.       | Children will identify the value of numbers with two decimal places. They will learn how to express tenths and hundredths in both decimals and fractions, matching one to the other to express equivalences.                                      | <ul style="list-style-type: none"> <li>Do children know how tenths are expressed as a fraction and a decimal?</li> <li>Do children know how hundredths are expressed as a fraction and a decimal?</li> <li>Can children describe the value in each digit of numbers with two decimal places?</li> </ul>         | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 1A/1B/1C</li> <li>Number Machines (FSD? activity only)</li> <li>Number Machine Digit Strips (FSD? activity only)</li> </ul>  |
| <b>Lesson 2</b> | To find out the effect of dividing one- and two-digit numbers by 10 and 100. | Children will explore the effects of dividing numbers by 10 and 100 to give answers with two decimal places. They will learn to express the answers in both decimals and fractions.   | <ul style="list-style-type: none"> <li>Can children recognise the effect of dividing a number by 10?</li> <li>Can children recognise the effect of dividing a number by 100?</li> <li>Can children identify the value of decimals and fractions as tenths and hundredths?</li> </ul>                            | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 2A/2B/2C</li> <li>Number Sentence Cards 2A/2B (FSD? activity only)</li> <li>Blank Number Sentence Cards (FSD? activity only)</li> </ul>                                    |
| <b>Lesson 3</b> | To recognise and show families of equivalent fractions.                      | Children will explore families of equivalent fractions, using diagrams to support them. They will identify ways of expressing a fraction in as many ways as they can, using their understanding of the number system to find equivalences.        | <ul style="list-style-type: none"> <li>Can children identify equivalent fractions through diagrams?</li> <li>Can children identify equivalent fractions using a fraction wall?</li> <li>Can children identify equivalent fractions using their knowledge of how fractions are related to each other?</li> </ul> | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 3A/3B/3C</li> <li>Fraction Bingo sheet (FSD? activity only)</li> <li>Fraction Wall Chart (FSD? activity only)</li> </ul>   |
| <b>Lesson 4</b> | To be able to tell the time to the nearest minute on an analogue clock.      | Children will recap how to split an analogue clock face into quarters to help tell the time, before reading and writing the time accurately on analogue clocks. They can also solve word problems relating to time by calculating time intervals. | <ul style="list-style-type: none"> <li>Can children read the time accurately on an analogue clock?</li> <li>Can children write the time accurately on an analogue clock?</li> <li>Can children use their knowledge of time to solve problems?</li> </ul>  | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 4A/4B/4C</li> <li>Word Problem Cards 4A/4B (FSD? activity only)</li> <li>Clock Cards 4A/4B (FSD? activity only)</li> <li>Blank Clock Cards (FSD? activity only)</li> </ul> |
| <b>Lesson 5</b> | To be able to read and write the time on digital clocks.                     | Children will recap the relationship between analogue and digital time, before reading and writing the time accurately on digital clocks. They will match digital times with analogue times.  | <ul style="list-style-type: none"> <li>Can children read the time accurately on digital clocks?</li> <li>Can children write the time accurately on digital clocks?</li> <li>Can children convert analogue and digital times?</li> </ul>   | <ul style="list-style-type: none"> <li>Slides</li> <li>Worksheet 5A/5B/5C</li> <li>Digital and analogue clocks or watches (FSD? activity only)</li> </ul>   |