

# Year 5 Maths- Medium Term Planning



Lesson 1 -	<b>Lessons in black are key lessons that have to be taught</b>
Lesson 2 -	<b>Lessons in brown are lessons that can be combined into one or another key lesson</b>
Lesson 4 -	Lessons in grey are lessons that can be taught if time allows to consolidate, these resources can be used to support the delivery of white days/journaling



# Year 5 Lesson Breakdown

## Number and Place Value: Numbers to 1 000 000

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 1 - NUMBERS to 1 000 000	Lesson 1 - Reading and Writing NUMBERS to 100 000	To read and represent NUMBERS to 100 000.
	Lesson 2 - Reading and Writing NUMBERS to 1 000 000	To read and represent NUMBERS to 1 000 000.
	Lesson 3 - Reading and Writing NUMBERS to 1 000 000	To read and represent NUMBERS to 1 000 000 using NUMBER discs.
	Lesson 4 - COMPARING NUMBERS to 1 000 000	To COMPARE NUMBERS to 1 000 000 using place value.
	Lesson 5 - COMPARING NUMBERS to 1 000 000	To COMPARE NUMBERS to 1 000 000 using place value.
	Lesson 6 - COMPARING NUMBERS to 1 000 000	To COMPARE NUMBERS to 1 000 000 using pictorial representations and proportionality.
	Lesson 7 - COMPARING NUMBERS to 1 000 000	To COMPARE NUMBERS to 1 000 000 FROM pictorial representations, using lists and NUMBER lines.
	Lesson 10 - Rounding NUMBERS to the Nearest 10 000	To round NUMBERS to the nearest 10 000 using NUMBER lines and bar graphs.
	Lesson 11 - Rounding NUMBERS to the Nearest 100 000	To round NUMBERS to the nearest 100 000 using NUMBER lines and bar graphs.
	Lesson 12 - Rounding NUMBERS	To round NUMBERS to the nearest 100, 1000, 10 000 and 100 000 using NUMBER lines.



# Year 5 Lesson Breakdown

## Calculations: Addition and Subtraction

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 2 - Whole NUMBERS: Addition and Subtraction	Lesson 1 - Counting On to Add	To add using the 'counting on' strategy with concrete MATERIALS and NUMBER lines.
	Lesson 2 - Adding within 1 000 000	To add NUMBERS within 1 000 000 using rounding.
	Lesson 3 - Adding within 1 000 000	To add NUMBERS within 1 000 000 using the COLUMN METHOD of addition.
	Lesson 4 - Adding within 1 000 000	To consolidate and refine addition skills and place-value knowledge to solve addition PROBLEMS.
	Lesson 5 - Counting Backwards to Subtract	To subtract using the 'counting backwards' strategy with concrete MATERIALS.
	Lesson 6 - Subtracting within 1 000 000	To subtract using the COLUMN METHOD and NUMBER discs using NUMBERS to 1 000 000.
	Lesson 7 - Subtracting within 1 000 000	To subtract using the COLUMN METHOD and NUMBER discs using NUMBERS to 1 000 000.
	Lesson 8 - Subtracting within 1 000 000	To subtract NUMBERS to 1 000 000 using the COLUMN METHOD and NUMBER discs using NUMBERS to 1 000 000.
	Lesson 9 - Adding and Subtracting within 1 000 000	To use addition and subtraction to solve COMPARISON PROBLEMS WITH NUMBERS to 1 000 000.
	Lesson 10 - Adding and Subtracting within 1 000 000	To consolidate and refine addition and subtraction skills and place-value knowledge to solve PROBLEMS.



# Year 5 Lesson Breakdown

## Calculations: Multiplication and Division

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 3- Whole NUMBERS: Multiplication and Division	Lesson 1 - Finding Multiples	To consolidate and review MULTIPLICATION; to find the result of MULTIPLYING by a NUMBER.
	Lesson 2 - Finding Factors	To consolidate and review MULTIPLICATION; to find the NUMBERS we can MULTIPLY by to get a NUMBER.
	Lesson 3 - Finding COMMON Factors	To define and find COMMON factors of NUMBERS to 100.
	Lesson 4 - Finding PRIME NUMBERS	To identify and NAME the PRIME NUMBERS; to recognise PRIME NUMBERS as NUMBERS that only have 2 factors.
	Lesson 5 - PRIME NUMBERS and COMPOSITE NUMBERS	To define and DETERMINE PRIME NUMBERS and COMPOSITE NUMBERS.
	Lesson 6 - Finding Square and Cube NUMBERS	To create and DETERMINE square and cubed NUMBERS.
	Lesson 7 - Multiplying by 10, 100 and 1000	To MULTIPLY 1- and 2-digit NUMBERS by 10, 100 and 1000.
	Lesson 8 - Multiplying 2-Digit and 3-Digit NUMBERS by a Single Digit	To MULTIPLY 2- and 3-digit NUMBERS by a 1-digit NUMBER using MULTIPLE strategies.
	Lesson 9 - Multiplying 4-Digit NUMBERS	To MULTIPLY 4-digit NUMBERS by 1-digit NUMBERS.
	Lesson 10 - Multiplying 4-Digit NUMBERS	To MULTIPLY 4-digit NUMBERS by 1-digit NUMBERS with regrouping, using a variety of strategies.
	Lesson 11 - Multiplying 4-Digit NUMBERS	To MULTIPLY a 4-digit NUMBER by a 1-digit NUMBER, with regrouping FROM the ones, tens and hundreds, using MULTIPLE METHODS.
	Lesson 12 - Multiplying a 2-Digit NUMBER by a 2-Digit NUMBER	To MULTIPLY 2-digit NUMBERS by 2-digit NUMBERS using MULTIPLE METHODS.



# Year 5 Lesson Breakdown

## Calculations: Multiplication and Division - Continued

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 3 - Whole NUMBERS: Multiplication and Division	Lesson 13 - Multiplying a 2-Digit NUMBER by a 2-Digit NUMBER	To MULTIPLY a 2-digit NUMBER by a 2-digit NUMBER using MULTIPLE METHODS, including the grid METHOD, NUMBER bonds and COLUMN METHOD, with regrouping.
	Lesson 14 - Multiplying a 3-Digit NUMBER by a 2-Digit NUMBER	To MULTIPLY a 3-digit NUMBER by a 2-digit NUMBER, with the grid METHOD and COLUMN METHOD as key strategies.
	Lesson 15 - Multiplying a 3-Digit NUMBER by a 2-Digit NUMBER	To MULTIPLY a 3-digit NUMBER by a 2-digit NUMBER with regrouping, using the COLUMN METHOD as the key strategy.
	Lesson 16 - Dividing by 10, 100 and 1000	To find thousands, hundreds and tens in a 4-digit NUMBER using concrete MATERIALS.
	Lesson 17 - Dividing without REMAINDER	To divide 3- and 4-digit NUMBERS by 1-digit NUMBERS, using NUMBER bonds and long division as the key METHODS.
	Lesson 18 - Dividing without REMAINDER	To divide 4-digit NUMBERS by 1-digit NUMBERS, using NUMBER bonds and long division as the key METHODS.
	Lesson 19 - Dividing with REMAINDER	To divide 3-digit NUMBERS by 1-digit NUMBERS, using long division, short division and MENTAL METHODS, that give rise to REMAINDERS.



# Year 5 Lesson Breakdown

## Calculations: Word Problems

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 4 - Whole NUMBERS: Word PROBLEMS	Lesson 1 - Solving Word PROBLEMS using Multiplication and Division	To solve word PROBLEMS involving MULTIPLE operations; to identify the operation needed to carry out the plan.
	Lesson 2 - Solving Word PROBLEMS Using Bar Models	To solve word PROBLEMS involving MULTIPLICATION and division using bar MODELS as the MAIN heuristic.
	Lesson 3 - Solving Multi-Step Word PROBLEMS	To solve word PROBLEMS involving MULTIPLE operations, identifying key INFORMATION and representing INFORMATION using bar MODEL DIAGRAMS.
	Lesson 4 - Solving Multi-Step Word PROBLEMS	To solve word PROBLEMS involving MULTIPLE operations, using bar MODELS as they key heuristic to represent key INFORMATION.



# Year 5 Lesson Breakdown

## Statistics: Graphs

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 5 - Graphs	Lesson 1 - Reading Tables	To read the INFORMATION presented in a table and interpret its MEANING.
	Lesson 2 - Reading Tables	To read and respond to INFORMATION presented in a table.
	Lesson 3 - Reading Tables	To read and respond to tables that have a variety of data sets.
	Lesson 4 - Reading Line Graphs	To read and interpret INFORMATION provided in a line graph where a single line represents the data.
	Lesson 5 - Reading Line Graphs	To read and interpret INFORMATION presented on a line graph where the data is represented by MORE than one line.
	Lesson 6 - Reading Line Graphs	To read and interpret INFORMATION presented on a line graph where the data is represented by MORE than one line.
	Lesson 7 - Reading Line Graphs	To read and interpret INFORMATION presented in a table and turn it into a line graph; to DETERMINE relationships between data sets.



# Year 5 Lesson Breakdown

## Fractions, Decimals and Percentages: Fractions

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 6 - Fractions	Lesson 1 - Dividing to Make Fractions	To divide whole NUMBERS to create fractions; to create MIXED NUMBERS and IMPROPER fractions when dividing whole NUMBERS.
	Lesson 2 - Writing IMPROPER Fractions and Mixed NUMBERS	To write IMPROPER fractions and MIXED NUMBERS using a NUMBER line and pictorial METHODS.
	Lesson 3 - Finding Equivalent Fractions	To find equivalent fractions using pictorial METHODS.
	Lesson 4 - COMPARING and Ordering Fractions	To COMPARE and order fractions using the pictorial METHOD.
	Lesson 5 - COMPARING and Ordering IMPROPER Fractions	To COMPARE and order IMPROPER fractions using the pictorial METHOD.
	Lesson 6 - COMPARING and Ordering Mixed NUMBERS	To COMPARE MIXED NUMBERS using pictorial representations; to find COMMON DENOMINATORS where one fraction is already the COMMON DENOMINATOR for all fractions in the question.
	Lesson 7 - Making NUMBER Pairs	To MAKE NUMBER pairs (NUMBER bonds) with fractions with different DENOMINATORS.
	Lesson 8 - Adding Fractions	To add unlike fractions by finding a COMMON DENOMINATOR using pictorial METHODS.
	Lesson 9 - Adding Fractions	To add unlike fractions by finding a COMMON DENOMINATOR using pictorial METHODS.
	Lesson 10 - Adding Fractions	To add together unlike fractions where the SUM is greater than 1, creating MIXED NUMBERS or IMPROPER fractions.
	Lesson 11 - Adding Fractions	To add unlike fractions which create IMPROPER fractions and MIXED NUMBERS that give rise to SIMPLIFICATION.
	Lesson 12 - Subtracting Fractions	To subtract fractions with different DENOMINATORS; to subtract fractions FROM WHOLE NUMBERS.
	Lesson 13 - Subtracting Fractions	To subtract fractions where the DENOMINATORS are not the SAME; to use bar MODELS as a key strategy for subtracting fractions.
	Lesson 14 - Subtracting Fractions	To subtract fractions and MIXED NUMBERS FROM MIXED NUMBERS with different DENOMINATORS.
	Lesson 15 - Multiplying Whole NUMBERS by Proper Fractions	To MULTIPLY fractions by whole NUMBERS creating other fractions, MIXED NUMBERS or IMPROPER fractions.





# Year 5 Lesson Breakdown

## Fractions, Decimals and Percentages: Fractions - Continued

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 6 - Fractions	Lesson 16 - Multiplying Proper Fractions and Whole NUMBERS	To MULTIPLY fractions by whole NUMBERS where the product is an IMPROPER fraction or MIXED NUMBER.
	Lesson 17 - Multiplying Mixed NUMBERS and Whole NUMBERS	To MULTIPLY MIXED NUMBERS by whole NUMBERS, creating larger MIXED NUMBERS.
	Lesson 18 - Multiplying Mixed NUMBERS and Whole NUMBERS	To MULTIPLY MIXED NUMBERS by whole NUMBERS in MULTI-STEP word PROBLEMS.
	Chapter Consolidation	To practise various concepts covered in the chapter.



# Year 5 Lesson Breakdown

## Fractions, Decimals and Percentages: Decimals

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 7 - DECIMALS	Lesson 1 - Writing DECIMALS	To write DECIMAL NUMBERS.
	Lesson 2 - Reading and Writing DECIMALS	To read and write DECIMALS.
	Lesson 3 - Reading and Writing DECIMALS	To read and write DECIMALS.
	Lesson 4 - COMPARING DECIMALS	To COMPARE tenths and hundredths written as DECIMALS.
	Lesson 5 - COMPARING DECIMALS	To order and COMPARE DECIMALS.
	Lesson 6 - COMPARING DECIMALS	To COMPARE and order DECIMALS of AMOUNTS.
	Lesson 7 - Writing Fractions as DECIMALS	To write fractions as DECIMALS.
	Lesson 8 - Adding and Subtracting DECIMALS	To add and subtract AMOUNTS in DECIMALS.
	Lesson 9 - Adding and Subtracting DECIMALS	To add and subtract DECIMALS; to add and subtract AMOUNTS in pounds and pence.
	Lesson 10 - Adding and Subtracting DECIMALS	To add and subtract AMOUNTS in pounds and pence.
	Lesson 11 - Adding and Subtracting DECIMALS	To add and subtract DECIMALS; to add and subtract AMOUNTS in pounds and pence.
	Lesson 12 - Adding and Subtracting DECIMALS	To add and subtract DECIMALS to find the SMALLEST possible SUM and difference.
	Lesson 13 - Adding and Subtracting DECIMALS	To add and subtract DECIMALS; to find NUMBER pairs that add up to 1.
	Lesson 14 - Adding and Subtracting DECIMALS	To add and subtract the PERIMETER of an object using DECIMALS.
	Lesson 15 - Rounding DECIMALS	To round DECIMALS to the nearest whole NUMBER; to round NUMBERS to nearest tenth.



# Year 5 Lesson Breakdown

## Fractions, Decimals and Percentages: Percentage

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 8 - Percentage	Lesson 1 - Writing Percentages	To convert fractions with a DENOMINATOR of 100 to DECIMALS and percentages.
	Lesson 2 - Equivalent Fractions and DECIMALS	To convert SIMPLE fractions into percentages and DECIMALS.
	Lesson 3 - COMPARING Proportions Using Percentages	To convert fractions into percentages.



# Year 5 Lesson Breakdown

## Geometry - Properties of Shapes: Geometry

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 9 - GEOMETRY	Lesson 1 - Types of Angles	To know the NAMES and qualities of acute, right, obtuse and reflex angles.
	Lesson 2 - Measuring Angles	To MEASURE angles using a protractor.
	Lesson 3 - Measuring Angles at a Point	To draw, MEASURE and add angles using a protractor.
	Lesson 4 - Finding Angles at a Point on a Straight Line	To MEASURE angles using a protractor; to identify two angles which add up to 180 degrees on a straight line.
	Lesson 5 - Finding Angles Around a Point	To investigate angles that, when COMBINED, MAKE 360 degrees.
	Lesson 6 - Drawing Lines and Acute Angles	To draw lines and acute angles using a protractor.
	Lesson 7 - Drawing Lines and Obtuse Angles	To draw lines and obtuse angles with a high level of accuracy.
	Lesson 8 - Rectangles and Squares	To describe the sides and angles of both rectangles and squares.
	Lesson 9 - Angles Inside Quadrilaterals	To investigate the angles of various quadrilaterals, including squares and rectangles.
	Lesson 10 - Solving PROBLEMS WITH Angles in Quadrilaterals	To solve PROBLEMS involving angles in quadrilaterals.
	Lesson 11 - Solving PROBLEMS Involving Parallel Lines and Diagonals	To solve PROBLEMS involving angles, parallel lines and diagonals
	Lesson 12 - Regular and Irregular Polygons	To investigate regular polygons.



# Year 5 Lesson Breakdown

## Geometry - Position and Direction: Position and Movement

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 10 - Position and MOVEMENT	Lesson 1 - NAMING and Plotting Points	To NAME and plot points.
	Lesson 2 - Describing Translations	To describe the position of a shape following a translation.
	Lesson 3 - Describing Reflections	To describe MOVEMENTS and reflecting shapes.
	Lesson 4 - Describing Reflections	To describe the position of a shape following a reflection.
	Lesson 5 - Describing Successive Reflections	To reflect a shape MORE than once.



# Year 5 Lesson Breakdown

## Measurement: Measurements

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 11 - MEASUREMENTS	Lesson 1 - Converting Units of Length: CENTIMETRES and MILLIMETRES	To convert between CENTIMETRES and MILLIMETRES.
	Lesson 2 - Converting Units of Length: Metres and CENTIMETRES	To convert between CENTIMETRES and METRES.
	Lesson 3 - Converting Units of Length: KILOMETRES and Metres	To convert between KILOMETRES and METRES.
	Lesson 4 - Converting Units of Mass: KILOGRAMS and GRAMS	To convert between KILOGRAMS and GRAMS.
	Lesson 5 - Converting Units of VOLUME: Litres and Millilitres	To convert between litres and MILLILITRES.
	Lesson 6 - Converting IMPERIAL and Metric Units of MEASUREMENT	To convert between COMMON IMPERIAL and METRIC units of length, MASS and VOLUME.
	Lesson 7 - Solving Word PROBLEMS: Length, Mass and VOLUME	To solve word PROBLEMS involving different units of length, MASS and VOLUME.
	Lesson 8 - Solving Word PROBLEMS: TIME	To convert units of TIME.
	Lesson 9 - Reading the TEMPERATURE	To read the TEMPERATURE on a THERMOMETER.



# Year 5 Lesson Breakdown

## Measurement: Area and Perimeter

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 12 - Area and PERIMETER	Lesson 1 - PERIMETER of Rectangles and Squares	To find the PERIMETER of rectangles.
	Lesson 2 - Area of Rectangles and Squares	To find the area of rectangles.
	Lesson 3 - PERIMETER of COMPOSITE Shapes	To find the PERIMETER of rectilinear shapes.
	Lesson 4 - Area of COMPOSITE Shapes	To find the area of rectilinear shapes.
	Lesson 5 - ESTIMATING Area and Drawing to Scale	To be able to ESTIMATE the area of irregular shapes drawn on a grid.



# Year 5 Lesson Breakdown

## Measurement: Volume

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 13 - VOLUME	Lesson 1 - VOLUME of Solids	To understand the VOLUME of solids.
	Lesson 2 - VOLUME of Solids in Cubic Units	To find the VOLUME of 3D shapes.
	Lesson 3 - Finding the VOLUME of Cuboids	To calculate the VOLUME of cuboids.
	Lesson 4 - Finding the VOLUME of Liquids	To find the capacity of a container in METRIC units.
	Lesson 5 - Solving Word PROBLEMS Involving VOLUME	To apply knowledge of VOLUME to solve PROBLEMS.





# Year 5 Lesson Breakdown

## Number and Place Value: Roman Numerals

Maths – No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 14 - ROMAN NUMERALS	Lesson 1 - ROMAN NUMERALS to 1000	To write ROMAN NUMERALS to 1000.
	Lesson 2 - Years in ROMAN NUMERALS	To write NUMBERS in their thousands in ROMAN NUMERALS.

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