North East
Learning Trust

MATHEMATICS

SCHEME OF WORK

Our Vision

Diamond Hall Junior Academy aims to provide an inspiring, inclusive, challenging and real-world curriculum that the children will enjoy. Inspiring future thinkers, innovators and problem solvers in an environment that stimulates and supports high quality learning. To ensure that all learners exceed their potential academically, socially, emotionally and spiritually with their families, in their communities as well as the wider world ensuring they become ambitious lifelong learners.

Principles and Purpose

Our curriculum has been customised, personalised and structured so that the development of knowledge, skills and vocabulary is completed in a systematic and logical sequence, with big ideas being reintroduced throughout Key Stage in a variety of projects, making links between subjects and content. The curriculum is organised to support pupils growing depth of learning using a project based, thematic approach, it provides children with a range and breadth of rich and memorable learning experiences which promotes SMSC and British Values.

When designing our curriculum, we have ensured a well-planned program which recognises the knowledge and skills, pupils will need for later life taking into consideration our diverse community and local ship building, pottery and coal mining heritage.

Diamond Hall Junior Academy places the community at the heart of all it does, we strive to leave a legacy of future learners for generations to come.

Aims

- Develop the purpose and value of their learning and see its relevance to their past, present and future.
- Opportunities to enrich children's lives through a broad and diverse range of exciting experiences.
- Make meaningful links between subjects.
- Develop children's skills, knowledge and understanding of a range of themes and concepts.
- Develop a rich and deep subject knowledge.
- Make effective connections to the real world.
- Help children to think both systematically and creatively to solve problems.
- Develop children's capacities to work independently and collaboratively.
- Enable children to make informed choices about their learning. Taking into account children's interests and fascinations.
- Make a positive contribution to the school and local community.

Our approach:

- Develops children to the best of their abilities
- Helps children to find their passions and interests
- Facilitates children's acquisition of knowledge, skills and understanding
- Helps children to develop intellectually, emotionally, socially, physically and morally
- Assists all children in becoming resilient, independent, responsible, useful, confident and considerate members of the community
- Promotes a positive attitude towards learning, so children enjoy coming to school
- Helps children to acquire essential knowledge and skills as a solid basis for lifelong learning
- Creates and maintains an exciting and stimulating learning environment
- Ensures that each child's education has continuity and progression
- Enables all children to contribute positively within a culturally diverse society
- Promotes innovation and entrepreneurialism
- Opportunities to learn in different environments.

Mathematics Intent

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject. (article 29)

The national curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects. (article 28)

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

Information and communication technology (ICT)
Calculators should not be used as a substitute for good written and mental arithmetic. They should therefore only be introduced near the end of key stage 2 to support pupils' conceptual understanding and exploration of more complex number problems, if written and mental arithmetic are secure. In both primary and secondary schools, teachers should use their judgement about when ICT tools should be used.

Spoken language
The national curriculum for mathematics reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof. They must be assisted in making their thinking clear to themselves as well as others and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions. (article 29)

Principle focus of maths for Years 3 and 4
To ensure that pupils become increasingly fluent with whole numbers and the 4 operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.

At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number.

By the end of Year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work. Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word-reading knowledge and their knowledge of spelling.

Principle focus of maths for Years 5 and 6
To ensure that pupils extend their understanding of the number system and place value to include larger integers. This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio.

At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.

By the end of Year 6, pupils should be fluent in written methods for all 4 operations, including long multiplication and division, and in working with fractions, decimals and percentages.

Pupils should read, spell and pronounce mathematical vocabulary correctly

MATHS – YEAR 1 AT A GLANCE

	AUTUMN TERM	SPRING TERM	SUMMER TERM
Week 1	Number and Place Value: Numbers to 10 LESSON BREAKDOWN	Calculations: Addition and Subtraction within 20 LESSON BREAKDOWN	Calculations: Multiplication LESSON BREAKDOWN
Week 2		Geometry - Properties of Shape: Shapes and Patterns LESSON BREAKDOWN	Calculations: Division LESSON BREAKDOWN
Week 3	Calculations: Addition and Subtraction LESSON BREAKDOWN		Fractions: Fractions LESSON BREAKDOWN
Week 4		Measurement: Length and Height LESSON BREAKDOWN	Number and Place Value: Numbers to 100 LESSON BREAKDOWN
Week 5		Revision and Mid-year (A) Tests	
Week 6		Review and Remediation	Measurement: Time LESSON BREAKDOWN
Week 7			Measurement: Money LESSON BREAKDOWN
Week 8	Geometry – Position and Direction: Positions LESSON BREAKDOWN	Number and Place Value: Numbers to 40 LESSON BREAKDOWN	Measurement: Volume and Capacity LESSON BREAKDOWN
Week 9			Measurement: Mass LESSON BREAKDOWN
Week 10	Number and Place Value: Numbers to 20 LESSON BREAKDOWN	Calculations: Addition and Subtraction LESSON BREAKDOWN	Geometry - Position and Direction: Space LESSON BREAKDOWN
Week 11			Revision and End-of-year (B) Tests
Week 12	Calculations: Addition and Subtraction within 20 LESSON BREAKDOWN	Calculations: Multiplication LESSON BREAKDOWN	Review and Remediation

AUTUMN TERM – TEXTBOOK 1A

Number and Place Value: Numbers to 10

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 1 - Numbers to 10	**Lesson 1 – Counting to 10**	**To be able to count numbers to 10 accurately – forward and backward.**
	Lesson 2 – Counting Objects to 10	**To be able to count similar objects up to 10 with accuracy and fluency.**
	Lesson 3 – Writing to 10	**To be able to write all numbers to 10 with numerals and in words; to count only objects of the same name in a group.**
	Lesson 4 – Counting to Zero	**To be able to understand what zero represents and use it when counting.**
	Lesson 5 – Comparing Number of Objects	**To be able to compare different sets of objects and say which one has fewer, more or is equal.**
	Lesson 6 – Ordering Numbers	**To be able to order numbers to 10 and know which number is greater or is lesser in value.**
	Lesson 7 – Comparing Numbers	**To compare numbers using the terms '1 more' and '1 less'.**
	Chapter consolidation	**To practise various concepts that were covered in the chapter, from writing the numbers in words to consolidating the correct value of digits.**
	2 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

AUTUMN TERM – TEXTBOOK 1A

Calculations: Addition and Subtraction

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 2 -Number Bonds	**Lesson 1 – Making Number Bonds**	**To understand that a number is made up of other numbers; to find as many ways possible to contruct a number.**
	Lesson 2 – Making Number Stories	**To use number bonds for storytelling.**
	Chapter consolidation	**To practise various concepts that were covered in the chapter.**
	2 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**
Chapter 3 - Addition Within 10	**Lesson 1 – Add by Using Number Bonds**	**To be able to add two different numbers within 10. Pupils will become familiar with the different vocabulary associated with addition.**
	Lesson 2 – Add by Counting On	**To add by counting on.**
	Lesson 3 – Completing Number Sentences	**To complete number sentences and gain an understanding of inverse operations.**
	Lesson 4 – Making Addition Stories	**To be able to make addition stories using correct vocabulary.**
	Lesson 5 – Solving Picture Problems	**To be able to solve addition problems through pictures.**
	Chapter consolidation	**Maths journal and reflection of learning throughout the chapter.**
	3 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**
Chapter 4 - Subtraction within 10	**Lesson 1 – Subtract by Crossing Out**	**To understand that subtraction can be done by crossing out or taking away.**
	Lesson 2 – Subtracting by Using Number Bonds	**To be able to subtract using number bonds.**
	Lesson 3 – Subtract by Counting Back	**To be able to solve a subtraction equation by counting back, using a number line as support.**
	Lesson 4 – Making Subtraction Stories	**To be able to make subtraction sentences.**
	Lesson 5 – Solving Picture Problems	**To be able to solve picture problems involving subtraction.**
	Lesson 6 – Addition and Subtraction	**To solve problems in the context of addition and subtraction and to find the corresponding number families.**
	Chapter consolidation	**To consolidate the learning of subtraction equations and fact families.**
	4 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

AUTUMN TERM – TEXTBOOK 1A

Geometry – Position and Direction: Positions

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 5 - Positions	**Lesson 1 – Naming Positions**	**To learn the appropriate positional language (ordinal numbers) for up to 10 positions.**
	Lesson 2 – Naming Positions in Queues	**To be able to name the positions in a queue.**
	Lesson 3 – Naming Left and Right Positions	**To be able to name positions, including left and right.**
	Chapter consolidation	**To consolidate the learning of positional language.**
	3 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

AUTUMN TERM – TEXTBOOK 1A

Number and Place Value: Numbers to 20

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 6 - Numbers to 20	**Lesson 1 – Counting to 20**	**To count numbers up to 20. The key strategy is to begin by making 10.**
	Lesson 2 – Writing to 20	**To recognise, read and write numbers up to 20 in words and numerals.**
	Lesson 3 – Comparing Numbers	**To use the terms 'greater than' or 'less than' to compare numbers within 20.**
	Lesson 4 – Ordering Numbers	**To be able to arrange numbers up to 20 in ascending and descending order.**
	Lesson 5 – Number Patterns	**To look for patterns with numbers up to 20, focusing on one more and one less than a number.**
	Chapter consolidation	**To practise various concepts that were covered in the chapter.**
	4 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

AUTUMN TERM – TEXTBOOK 1A

Calculations: Addition and Subtraction within 20

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 7 - Addition and Subtraction within 20 Lessons 1-5	**Lesson 1 – Add by Counting On**	**To learn to add by counting on from the largest number.**
	Lesson 2 – Add by Making 10	**To add to numbers by first making 10 and then adding on the remainder.**
	Lesson 3 – Add by Adding Ones	**To add by separating the ones and ten. This enables pupils to add the sum of the ones to the ten.**
	Lesson 4 – Subtract by Counting Back	**To learn how to subtract by counting back from the largest number.**
	Lesson 5 – Subtract by Subtracting Ones	**To learn how to subtract by subtracting from only the ones column.**

SPRING TERM – TEXTBOOK 1A

Calculations: Addition and Subtraction within 20

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 7 - Addition and Subtraction within 20 Lessons 6-7	**2 revision days**	**To revisit lessons 1–5.**
	Lesson 6 – Subtract from 10	**To subtract a certain amount of ones from 10 rather than from the ones, as there are not enough ones.**
	Lesson 7 – Addition and Subtraction Facts	**To go through number facts derived from addition and subtraction sentences.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

SPRING TERM – TEXTBOOK 1A

Geometry - Properties of Shapes: Shapes and Patters

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 8 - Shapes and Patterns	**Lesson 1 – Recognising Solids**	**To recognise four basic 3-D solid shapes: spheres, cubes, cuboids and pyramids.**
	Lesson 2 – Recognising Shapes	**To recognise 2-D shapes in the everyday environment.**
	Lesson 3 – Grouping Shapes	**To be able to group shapes using different criteria.**
	Lesson 4 – Making Patterns	**To make patterns using common 2-D shapes.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	2 days consolidation	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SPRING TERM – TEXTBOOK 1A		
Measurement: Length and Height		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 9 - Length and Height	**Lesson 1 – Comparing Height and Length**	**To compare height and length by using key terminology.**
	Lesson 2 – Measuring Length Using Things	**To be able to measure objects using other items, such as pencils or books.**
	Lesson 3 – Measuring Height and Length Using Body Parts	**To be able to measure items using other things - parts of the body in particular.**
	Lesson 4 – Measuring Height and Length Using a Ruler	**To introduce the concept of using rulers for measuring.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	2 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**
Week 5	**REVISION AND MID-YEAR (A) TESTS**	
Weeks 6 and 7	**REVIEW AND REMEDIATION**	

SPRING TERM – TEXTBOOK 1B

Number and Place Value: Numbers to 40

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 10 - Numbers to 40	**Lesson 1 – Counting to 40**	**To use the making 10 strategy to count numbers above 10; to represent numbers on a number line.**
	Lesson 2 – Writing Numbers to 40	**To use the ten-frame method of organisation and place-value cards to assist pupils in writing numbers to 40; to encourage multiple ways of counting, including counting by 2, 5 and 10.**
	Lesson 3 – Counting in Tens and Ones	**To understand that digits represent tens and ones; to represent numbers using Base 10 materials and numbers.**
	Lesson 4 – Comparing Numbers	**To use place value to compare two or three numbers and determine which number is bigger/smaller; to arrange three numbers in order of size.**
	Lesson 5 – Finding How Much More	**To compare numbers using number bonds, 100-squares and number lines to determine how much more/less.**
	Lesson 6 – Making Number Patterns	**To observe and use number patterns; to see number lines in conjunction with number squares in order to create visual proportionality.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	3 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SPRING TERM – TEXTBOOK 1B

Calculations: Addition and Subtraction Word Problems

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 11 - Addition and Subtraction Word Problems	**Lesson 1 – Solving Word Problems**	**To decide whether addition or subtraction is the most appropriate operation; to use and apply number bonds and visual representations to solve word problems.**
	Lesson 2 – Solving Word Problems	**To use and apply concepts of how many more and how many fewer/less; to apply number bonds and the guess-and-check method to solve word problems.**
	Lesson 3 – Solving Word Problems	**To develop number sentences based on word problems; to improve the use of number bonds and one-to-one bar model representations to suit the question.**
	Lesson 4 – Solving Word Problems	**To use pictorial representations to help solve word problems; to choose the correct operation to solve a word problem.**
	Lesson 5 – Solving Word Problems	**To use visual representations and patterns to solve word problems; to develop precision in model drawing to recognise similarities and differences.**
	Lesson 6 – Solving Word Problems	**To apply addition and subtraction to multi-step word problems; to use number bonds to make 10 when adding.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	3 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SPRING TERM – TEXTBOOK 1B

Calculations: Multiplication

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 12 - Multiplication	**Lesson 1 – Making Equal Groups**	**To identify equal groupings as the first step in multiplying; to reinforce the idea that the arrangement of objects does not impact on the number of objects.**
	Lesson 2 – Adding Equal Groups	**To understand we can count groups of the same quantity more efficiently; to find multiple ways of counting groups of the same quantity.**
	Lesson 3 – Making Equal Rows	**To organise objects into equal rows in order to begin counting equal numbers efficiently.**
	Lesson 4 – Making Doubles	**To understand that doubling is creating an identical number to the one you started with; to understand that doubling is the same as saying two groups of the same amount.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SUMMER TERM – TEXTBOOK 1B

Calculations: Multiplication

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 12 - Multiplication	**2 revision days**	**To revisit lessons 1–4.**
	Lesson 5 – Solving Word Problems	**To solve word problems using equal groupings as the basis for multiplication.**
	Chapter consolidation	**To practise various concepts that were covered in the chapter.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SUMMER TERM – TEXTBOOK 1B

Calculations: Division

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 13 - Division	**Lesson 1 – Grouping Equally**	**To understand how to divide even numbers into equal groups using concrete materials; to determine how many groups will be created from sharing equally.**
	Lesson 2 – Sharing Equally	**To understand how to divide even numbers equally into groups; to determine how many objects will be included in each group in order to share equally.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	2 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SUMMER TERM – TEXTBOOK 1B

Fractions: Fractions

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 14 - Fractions	**Lesson 1 – Making Halves**	**To split an object (shape) into two equal parts; to identify shapes that have been split into two equal parts.**
	Lesson 2 – Making Quarters	**To split an object (shape) into four equal parts; to identify shapes that have been split into four equal parts.**
	Lesson 3 – Sharing and Grouping	**To share and group objects into halves and quarters; to determine half of a number and a quarter of a number.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SUMMER TERM – TEXTBOOK 1B

Number and Place Value: Numbers to 100

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 15 - Numbers to 100	**Lesson 1 – Counting to 100**	**To count in sequences of 10 followed by counting ones; to increase confidence with number lines and Base 10 materials in order to count numbers to 100.**
	Lesson 2 – Finding Tens and Ones	**To understand the value of the tens and ones digits in a number; to use multiple methods of representing and constructing a number.**
	Lesson 3 – Comparing Numbers	**To review and extend skills and strategies related to number comparison; to place numbers in order from smallest to greatest and vice versa.**
	Lesson 4 – Making Number Patterns	**To see patterns of numbers when increasing or decreasing by 1, 2 or 5; to use a number line, a 100-chart and Base 10 materials to represent numbers.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	2 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SUMMER TERM – TEXTBOOK 1B

Measurement: Time

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 16 - Time	**Lesson 1 – Telling Time to the Hour**	**To develop familiarity with the analogue clock, including the minute and hour hands; to tell time to the hour on an analogue clock.**
	Lesson 2 – Telling Time to the Half Hour	**To improve familiarity with the analogue clock; to tell time to the half hour using the term 'half past.'**
	Lesson 3 – Using Next, Before and After	**To sequence events in order of time; to use the terms 'next', 'before' and 'after' to describe the order of events.**
	Lesson 4 – Estimating Duration of Time	**To estimate an amount of time using seconds, minutes and hours.**
	Lesson 5 – Comparing Time	**To use the terms 'quicker', 'slower', 'earlier' and 'later' when comparing time.**
	Lesson 6 – Using a Calendar	**To learn the days of the week and the months of the year and to be able to put them in the correct order.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SUMMER TERM – TEXTBOOK 1B

Measurement: Money

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 17 - Money	**Lesson 1 – Recognising Coins**	**To recognise coins and determine their value using size, colour, markings and shape.**
	Lesson 2 – Recognising Notes	**To recognise notes and determine their value using colour and markings.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	2 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SUMMER TERM – TEXTBOOK 1B

Measurement: Volume and Capacity

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 18 - Volume and Capacity	**Lesson 1 – Comparing Volume and Capacity**	**To compare volume and capacity using the terms 'more than' and 'less than', 'full' and 'empty'.**
	Lesson 2 – Finding Volume and Capacity	**To find the volume and capacity of a container using non-standard ones.**
	Lesson 3 – Describing Volume Using Half and a Quarter	**To describe volume using the terms 'half' and 'quarter'.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SUMMER TERM – TEXTBOOK 1B

Measurement: Mass

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 19 - Mass	**Lesson 1 – Comparing Mass**	**To compare the mass of objects using the terms 'heavy' and 'light', 'heavier than', 'lighter than' and 'as heavy as'.**
	Lesson 2 – Finding Mass	**To find the mass of an object using non-standard ones; to use visualisation skills to estimate the number of ones.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	2 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SUMMER TERM – TEXTBOOK 1B		
Geometry – Position and Direction: Space		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 20 - Space	**Lesson 1 – Describing Positions**	**To describe the position of objects in relation to one another using varied vocabulary.**
	Lesson 2 – Describing Movements	**To describe movements of objects using varied language.**
	Lesson 3 – Making Turns	**To understand how to make turns using mathematical language and connect this knowledge to time.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**
Week 11	**REVISION AND END-OF-YEAR (B) TESTS**	
Week 12	**REVIEW AND REMEDIATION**	

MATHS – YEAR 2 AT A GLANCE

	AUTUMN TERM	SPRING TERM	SUMMER TERM
Week 1	Number and Place Value: Numbers to 100 LESSON BREAKDOWN	Statistics: Picture Graphs LESSON BREAKDOWN	Measurement: Time LESSON BREAKDOWN Measurement: Volume LESSON BREAKDOWN
Week 2		Mid-year (A) Tests and Remediation	
Week 3	Calculations: Addition and Subtraction LESSON BREAKDOWN	Calculations: More Word Problems LESSON BREAKDOWN	
Week 4		Measurement: Money LESSON BREAKDOWN	SATs
Week 5	Calculations: Multiplication of 2, 5 and 10 LESSON BREAKDOWN		Review and Revisit Topics
Week 6		Geometry - Properties of Shapes: 2-D Shapes LESSON BREAKDOWN	
Week 7	Calculations: Multiplication and Division of 2, 5 and 10 LESSON BREAKDOWN		
Week 8		Geometry - Properties of Shapes: 3-D Shapes LESSON BREAKDOWN	
Week 9	Measurement: Length LESSON BREAKDOWN	Fractions: Fractions LESSON BREAKDOWN	Revision and End-of-year (B) Tests
Week 10			Review and Revisit Topics
Week 11	Measurement: Mass LESSON BREAKDOWN		
Week 12	Measurement: Temperature LESSON BREAKDOWN	Review and Revisit Topics	

AUTUMN TERM – TEXTBOOK 2A

Number and Place Value: Numbers to 100

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 1 - Numbers to 100	**Lesson 1 – Counting to 100**	**To count numbers up to 100 using concrete objects: counting up by ones and tens.**
	Lesson 2 – Place Value	**To understand each digit in a number has its own value.**
	Lesson 3 – Comparing Numbers	**To be able to compare numbers using place-value knowledge gained from previous lessons.**
	Lesson 4 – Number Bonds	**To use the number bond strategy to deepen understanding of place value.**
	Lesson 5 – Number Patterns	**To count in ones and tens; to introduce boundary crossing using tens and ones.**
	Lesson 6 – Number Patterns	**To recognise and describe patterns with more complex numbers, in particular 3 and 5.**
	Chapter consolidation	**To use place-value knowledge to think about the effects of each digit in a number.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**

AUTUMN TERM – TEXTBOOK 2A

Calculations: Addition and Subtraction

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 2 - Addition and Subtraction	**Lesson 1 – Simple Adding**	**To be able to add a 1-digit number to a 2-digit number without regrouping the ones.**
	Lesson 2 – Simple Adding	**To add tens by recognising its relationship to adding ones.**
	Lesson 3 – Simple Adding	**To add 2-digit numbers where one is a multiple of 10.**
	Lesson 4 – Simple Adding	**To add with tens and ones where the ones are both more than zero.**
	Lesson 5 – Adding with Renaming	**To add 1-digit numbers to a 2-digit number resulting in renaming of ones.**
	Lesson 6 – Adding with Renaming	**To add two 2-digit numbers where renaming is expected.**
	Lesson 7 – Simple Subtracting	**To subtract ones from a 2-digit number.**
	Lesson 8 – Simple Subtracting	**To subtract 2-digit multiples of 10 from 2-digit multiples of 10.**
	Lesson 9 – Simple Subtracting	**To subtract tens from a 2-digit number with the ones being more than zero.**
	Lesson 10 – Simple Subtracting	**To subtract a 2-digit number by another 2-digit number.**
	Lesson 11 – Subtracting with Renaming	**To subtract a 2-digit number by a 1-digit number with renaming.**
	Lesson 12 – Subtracting with Renaming	**To subtract a 2-digit number by another 2-digit number where renaming has to occur.**
	Lesson 13 – Addition of Three Numbers	**To add three 1-digit numbers.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

AUTUMN TERM – TEXTBOOK 2A

Calculations: Multiplication of 2, 5 and 10

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 3 - Multiplication of 2, 5 and 10	**Lesson 1 – Multiplication as Equal Groups**	**To realise that multiplication is the same as repeated addition with equal groups.**
	Lesson 2 – 2 Times Table	**To focus on understanding and learning the 2 times table.**
	Lesson 3 – 2 Times Table	**To use concrete materials and pictorial representations to multiply by 2.**
	Lesson 4 – 5 Times Table	**To cover the basics of the 5 times table and to highlight multiplication visually as equal groups.**
	Lesson 5 – 5 Times Table	**To recall and use the 5 times table.**
	Lesson 6 – 10 Times Table	**To introduce the 10 times table by focusing on the numbers found in the 10 times table.**
	Lesson 7 – 10 Times Table	**To look at the 10 times table in more detail by looking at patterns and relationships.**
	Lesson 8 – Multiplying by 2, 5 and 10	**To investigate links between the 2, 5 and 10 times tables. To understand commutative law.**
	Lesson 9 – Multiplying by 2, 5 and 10	**To use knowledge of the 2, 5 and 10 times tables to further investigate commutative law.**
	Lesson 10 – Solving Word Problems	**To use the 2, 5 and 10 times tables to solve word problems.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

AUTUMN TERM – TEXTBOOK 2A

Calculations: Multiplication and Division of 2, 5 and 10

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 4 - Multiplication and Division of 2, 5 and 10	**Lesson 1 – Grouping**	**To understand that grouping is a way of dividing.**
	Lesson 2 – Sharing	**To be able to divide by sharing an amount.**
	Lesson 3 – Dividing by 2	**To be able to divide by 2. The two strategies used here are splitting into groups of x and splitting into equal groups of many.**
	Lesson 4 – Dividing by 5	**To be able to divide by 5 and identify links with multiplying by 5.**
	Lesson 5 – Dividing by 10	**To be able to divide by 10 and identify links with multiplying by 10.**
	Lesson 6 – Multiplication and Division	**To use multiplication and division skills to identify family facts in a number sentence.**
	Lesson 7 – Solving Word Problems	**To understand and solve word problems which require the use of the multiplication and division skills covered in this chapter.**
	Lesson 8 – Odd and Even Numbers	**To be able to link whether odd or even numbers can be divisible by 2, 5 or 10.**
	Chapter consolidation	**To use multiplication and division knowledge in problem solving and to create equations from questions.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**

AUTUMN TERM – TEXTBOOK 2A		
Measurement: Length		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 5 – Length	**Lesson 1 – Measuring Length in Metres**	**To measure length in metres.**
	Lesson 2 – Measuring Length in Centimetres	**To measure length in centimetres.**
	Lesson 3 – Comparing Length in Metres	**To be able to compare length for objects using 'greater than' and 'less than' symbols.**
	Lesson 4 – Comparing Length in Centimetres	**To be able to compare different lengths using centimetres as the unit of measure.**
	Lesson 5 – Comparing the Length of Lines	**To be able to compare and measure various line lengths: both straight and curvy.**
	Lesson 6 – Solving Word Problems	**To be able to solve problems involving measurement in the context of word problems.**
	Lesson 7 – Solving Word Problems	**To be able to solve addition and multiplication word problems involving measurement.**
	Lesson 8 – Solving Word Problems	**To be able to solve addition and division word problems involving measurement.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**

AUTUMN TERM – TEXTBOOK 2A

Measurement: Mass

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 6 – Mass	**Lesson 1 – Measuring Mass in Kilograms**	**To understand that mass is measured in kilograms and by using weighing scales.**
	Lesson 2 – Measuring Mass in Grams	**To be able to measure mass in grams and to understand that it is a smaller unit of measure than a kilogram.**
	Lesson 3 – Measuring Mass in Grams	**To be able to measure mass accurately in grams using weighing scales.**
	Lesson 4 – Comparing Masses of Two Objects	**To be able to compare the mass of two different objects accurately.**
	Lesson 5 – Comparing the Mass of Three Objects	**To be able to compare the mass of three objects and use the appropriate vocabulary.**
	Lesson 6 – Solving Word Problems	**To solve word problems in the context of mass.**
	Lesson 7 – Solving More Word Problems	**To solve word problems involving mass.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

AUTUMN TERM – TEXTBOOK 2A

Measurement: Temperature

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 7 – Temperature	**Lesson 1 – Reading Temperature**	**To be able to accurately read temperature in Celsius.**
	Lesson 2 – Estimating temperature	**To be able to estimate temperature and to read thermometers to confirm the estimate.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

SPRING TERM – TEXTBOOK 2A

Statstics: Picture Graphs

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 8 - Picture Graphs	Lesson 1 – Reading Picture Graphs	To be able to read a picture graph with confidence.
	Lesson 2 – Reading Picture Graphs	To be able to read and interpret a picture graph with confidence.
	Lesson 3 – Reading Picture Graphs	To be able to read and interpret a picture graph where the value of the picture can represent more than 1.
	Lesson 4 – Reading Picture Graphs	To be able to read and interpret a picture graph where the value of the picture can represent more than 1.
	Lesson 5 – Reading Picture Graphs	To be able to read, interpret and create a picture graph where the value of the picture can represent more than 1.
	Chapter consolidation	To practise various concepts covered in the chapter.
Week 2	MID-YEAR (A) TESTS AND REMEDIATION	

SPRING TERM – TEXTBOOK 2B

Calculations: More Word Problems

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 9 - More Word Problems	Lesson 1 – Solving Word Problems	To decide when it is appropriate to add and/or subtract when solving word problems; to improve the use of bar modelling and decision making based on visual representations.
	Lesson 2 – Solving Word Problems	To use the bar model method to solve word problems looking at the difference between two amounts.
	Lesson 3 – Solving Word Problems	To solve multi-step word problems using bar modelling; to use more than one bar model in a problem to work out the answer.
	Lesson 4 – Solving Word Problems	To use bar modelling to solve multi-step word problems involving unknown quantities.
	Chapter consolidation	To practise various concepts covered in the chapter.

SPRING TERM – TEXTBOOK 2B		
Measurement: Money		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 10 - Money	**Lesson 1 – Writing Amounts of Money**	**To identify standard UK coins and notes and write their names.**
	Lesson 2 – Counting Money	**To count notes in sequences of 5 and 10; to recognise the value of notes by appearance.**
	Lesson 3 – Counting Money	**To count coins in sequences of their value; to recognise the value of coins by appearance.**
	Lesson 4 – Counting Money	**To represent amounts of money using coins and notes; to count coins and notes using their denominations.**
	Lesson 5 – Showing Equal Amounts of Money	**To create equal amounts of money using different coins.**
	Lesson 6 – Exchanging Money	**To exchange denominations of money for different coins.**
	Lesson 7 – Comparing Amounts of Money	**To compare different amounts of money using coins.**
	Lesson 8 – Calculating Total Amount	**To add money together to determine the total amount.**
	Lesson 9 – Calculating Change	**To calculate change from £100 or less; to use the bar model approach to represent amounts of money.**
	Lesson 10 – Solving Word Problems	**To solve more complex word problems using bar modelling as a primary method.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

SPRING TERM – TEXTBOOK 2B

Geometry – Properties of Shapes: 2-D Shapes

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 11 – 2-D Shapes	**Lesson 1 – Identifying Sides**	**To identify the number of sides on basic 2-D shapes.**
	Lesson 2 – Identifying Vertices	**To identify and count the vertices in regular polygons.**
	Lesson 3 – Identifying Lines of Symmetry	**To identify lines of symmetry in basic 2-D shapes.**
	Lesson 4 – Making Figures	**To construct shapes using pattern blocks that have lines of symmetry.**
	Lesson 5 – Sorting Shapes	**To sort shapes based on number of sides, vertices and other factors.**
	Lesson 6 – Drawing Shapes	**To draw shapes using square grid and dot grid paper; to copy shapes from sight using grid paper.**
	Lesson 7 – Making Patterns	**To recognise patterns of familiar shapes and colours of up to three objects.**
	Lesson 8 – Describing Patterns	**To describe patterns using ordinal numbers and shape names.**
	Lesson 9 – Moving Shapes	**To move shapes on a square grid from one position to another using common language.**
	Lesson 10 – Turning Shapes	**To turn objects using quarter, half and three-quarter turns both clockwise and anticlockwise on a square grid.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

SPRING TERM – TEXTBOOK 2B

Geometry – Properties of Shapes: 3-D shapes

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 12 – 3-DShapes	**Lesson 1 – Recognising Three-Dimensional Shapes**	**To recognise 3-D shapes by identifying their properties.**
	Lesson 2 – Describing Three-Dimensional Shapes	**To describe 3-D shapes and classify them using faces, vertices and edges.**
	Lesson 3 – Describing Three-Dimensional Shapes	**To describe 3-D shapes based on the number of faces and the 2-D shapes of these faces; to construct nets of shapes into 3-D shapes.**
	Lesson 4 – Grouping Three-Dimensional Shapes	**To group 3-D shapes by similar properties.**
	Lesson 5 – Forming Three-Dimensional Structures	**To form 3-D structures using multiple 3-D objects.**
	Lesson 6 – Making Patterns	**To make and recognise patterns using 3-D shapes.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

SPRING TERM – TEXTBOOK 2B

Fractions: Fractions

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 13 - Fractions	**Lesson 1 – Making Equal Parts**	**To make equal parts from a whole using simple and complex methods.**
	Lesson 2 – Showing Half and Quarter	**To show and recognise halves and quarters.**
	Lesson 3 – Showing Quarters	**To show and identify more than one quarter using materials and pictures.**
	Lesson 4 – Showing Thirds	**To show and identify thirds in shapes; to use the vocabulary 'numerator' and 'denominator' when referring to fractions.**
	Lesson 5 – Naming Fractions	**To identify and name fractions by looking at the number of pieces and how many are shaded in.**
	Lesson 6 – Making Equal Fractions	**To recognise equivalent fractions in quarters, thirds and halves.**
	Lesson 7 – Comparing and Ordering Fractions	**To compare and order similar fractions by looking at the size of the pieces shaded.**
	Lesson 8 – Comparing and Ordering Fractions	**To compare and order fractions with different denominators.**
	Lesson 9 – Counting Wholes and Parts	**To count the number of wholes and parts to form mixed numbers.**
	Lesson 10 – Counting in Halves	**To count in halves and place halves onto a number line using pictures.**
	Lesson 11 – Counting in Quarters	**To count in quarters and place quarters onto a number line using pictures.**
	Lesson 12 – Counting in Thirds	**To count in thirds and place thirds onto a number line using pictures.**
	Lesson 13 – Finding Part of a Set	**To find fractions (half) of whole numbers.**
	Lesson 14 – Finding Part of a Set	**To find a fraction (third) of a whole number.**
	Lesson 15 – Finding Part of a Set	**To find a fraction (quarter) of a number.**
	Lesson 16 – Finding Part of a Quantity	**To find a fraction (half, third, quarter) of a quantity (length).**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
Week 12	REVIEW AND REVISIT TOPICS	

SUMMER TERM – TEXTBOOK 2B

Measurement: Time

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 14 - Time	**Lesson 1 – Telling and Writing Time to 5 Minutes**	**To tell and write time to 5-minute intervals.**
	Lesson 2 – Telling and Writing Time	**To tell time to 5-minute intervals and to the hour.**
	Lesson 3 – Sequencing Events	**To sequence events of the day by looking at analogue clocks and pictures.**
	Lesson 4 – Drawing Clock Hands	**To draw hands on an analogue clock to show the correct time.**
	Lesson 5 – Finding Durations of Time	**To find the duration of time using an analogue clock in 30- and 60-minute intervals.**
	Lesson 6 – Finding Durations of Time	**To find the duration of time to 5-minute intervals.**
	Lesson 7 – Finding Ending Times	**To find the ending of a duration of time from different 5-minute starting points.**
	Lesson 8 – Finding Ending Times	**To find the ending time in intervals of 5 minutes from delayed starts.**
	Lesson 9 – Finding Starting Times	**To find the starting time from 30-minute and 1-hour interval durations.**
	Lesson 10 – Finding Starting Times	**To find the start of multiple durations of time using a common end time.**
	Lesson 11 – Comparing Time	**To compare durations of time from the least amount to the most amount of time and vice versa.**
	Chapter consolidation	**To practise various concepts that were covered in the chapter**

SUMMER TERM – TEXTBOOK 2B

Measurement: Volume

Lesson Name	Lesson Objective
Lesson 1 – Comparing Volume	**To compare volume in different-sized containers using the terms 'greater than,' 'less than,' 'greatest' and 'least.'**
Lesson 2 – Comparing Volume	**To compare the volume of different containers using non-standard units.**
Lesson 3 – Measuring Volume in Litres	**To measure volume using litres and determine whether an amount is 'more than,' 'less than' or 'equal to' a litre.**
Lesson 4 – Measuring Volume in Millilitres	**To measure volume using millilitres and litres; to determine how many ml there are in 1 l.**
Lesson 5 – Solving Word Problems	**To solve word problems involving bar models with litres as the standard unit.**
Lesson 6 – Solving Word Problems	**To solve word problems using ml and l, including problems involving difference.**
Lesson 7 – Solving Word Problems	**To solve word problems involving volume and multiplication.**
Chapter consolidation	**To practise various concepts covered in the chapter.**
SATs	
REVIEW AND REVISIT TOPICS	
REVISION AND END-OF-YEAR (B) TESTS	
REVIEW AND REVISIT TOPICS	

MATHS – YEAR 3 AT A GLANCE

	AUTUMN TERM	SPRING TERM	SUMMER TERM
Week 1	Number and Place Value: Numbers to 1000 LESSON BREAKDOWN	Measurement: Length LESSON BREAKDOWN	Statistics: Picture and Bar Graphs LESSON BREAKDOWN
Week 2			Fractions, Decimals and Percentages: Fractions LESSON BREAKDOWN
Week 3	Calculations: Addition and Subtraction LESSON BREAKDOWN	Measurement: Mass LESSON BREAKDOWN	
Week 4		Measurement: Volume LESSON BREAKDOWN	
Week 5			
Week 6		Mid-year (A) Tests and Remediation	
Week 7		Measurement: Money LESSON BREAKDOWN	Geometry – Properties of Shapes: Angles LESSON BREAKDOWN
Week 8	Calculations: Multiplication and Division LESSON BREAKDOWN		
Week 9			Geometry – Properties of Shapes: Lines and Shapes LESSON BREAKDOWN
Week 10		Measurement: Time LESSON BREAKDOWN	Measurement: Perimeter of Figures LESSON BREAKDOWN
Week 11	Calculations: Further Multiplication and Division LESSON BREAKDOWN		
Week 12			End-of-year (B) Tests and Remediation

AUTUMN TERM – TEXTBOOK3A		
Number and Place Value: Numbers to 1000		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 1 – Numbers to 1000	Lesson 1 – Counting in Hundreds	To learn to count in hundreds and understand the place value. Pupils will also understand how many hundreds are needed to make 1000.
	Lesson 2 – Counting in Hundreds, Tens and Ones	To compose and decompose numbers consisting of hundreds, tens and ones.
	Lesson 3 – Place Value	To understand the value of each digit in a 3-digit number.
	Lesson 4 – Comparing and Ordering Numbers	To be able to compare and order numbers.
	Lesson 5 – Counting in Fifties	To be able to count in fifties.
	Lesson 6 – Number Patterns	To recognise, describe and continue a number pattern.
	Lesson 7 – Number Patterns	To be able to recognise, describe and complete more complicated number patterns.
	Lesson 8 – Counting in Fours and Eights	To be able to count in fours and eights.
	Chapter consolidation	To practise various concepts covered in the chapter.
	1 consolidation day	To be used if lessons take longer than expected or a topic needs to be revisited.

AUTUMN TERM – TEXTBOOK3A

Calculations: Addition and Subtraction

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 2 – Addition and Subtraction	Lesson 1 – Addition and Subtraction Facts	To understand the commutative law of addition and the corresponding addition and subtraction facts.
	Lesson 2 – Simple Adding	To add a 3-digit number to a 1-digit number with no regrouping or renaming.
	Lesson 3 – Simple Adding	To add a 3-digit number to a multiple of 10 (2-digit number) without regrouping or renaming.
	Lesson 4 – Simple Adding	To add multiples of 100 to a 3-digit number. without regrouping or renaming.
	Lesson 5 – Simple Adding	To add two 3-digit numbers without regrouping or renaming; introduction of the column method of addition.
	Lesson 6 – Adding with Renaming	To add a 3-digit number to a 1-digit number, with renaming.
	Lesson 7 – Adding with Renaming	To add with renaming in tens.
	Lesson 8 – Adding with Renaming	To add two 3-digit numbers with renaming the ones.
	Lesson 9 – Adding with Renaming	To add two 3-digit numbers with renaming the tens.
	Lesson 10 – Adding with Renaming	To add with renaming in ones and tens.
	Lesson 11 – Simple Subtracting	To do simple subtraction by taking away a 1-digit number from a 2-digit number without renaming.
	Lesson 12 – Simple Subtracting	To do simple subtraction by taking away a 1-digit number from a 3-digit number without renaming.
	Lesson 13 – Simple Subtracting	To subtract multiples of 10, up to 90, from a 3-digit number.
	Lesson 14 – Simple Subtracting	To subtract hundreds from a 3-digit number and to subtract multiples of 1 and 10 from a 3-digit number.
	Lesson 15 – Simple Subtracting	To understand simple subtraction of a 3-digit number by another 3-digit number using the column method.
	Lesson 16 – Subtracting with Renaming	To subtract with renaming in tens and ones.
	Lesson 17 – Subtracting with Renaming	To subtract with renaming hundreds.
	Lesson 18 – Subtracting with Renaming	To subtract with regrouping tens and hundreds.
	Lesson 19 – Subtracting with Renaming	To subtract a 3-digit number with zeros.
	Lesson 20 – Using Models	To solve addition and subtraction problems using the bar model.
	Lesson 21 – Using Models	To use the bar model to solve problems.
	Lesson 22 – Using Models	To solve complicated problems involving addition and subtraction using a comparative bar model heuristic.
	Lesson 23 – Using Models	To solve more complicated problems involving addition and subtraction using a comparative bar model heuristic.
	Chapter consolidation	To practise various concepts covered in the chapter.
	1 consolidation day	To be used if lessons take longer than expected or a topic needs to be revisited.

AUTUMN TERM – TEXTBOOK3A

Calculations: Multiplication and Division

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 3 – Multiplication and Division	Lesson 1 – Multiplying by 3	To multiply by 3.
	Lesson 2 – Multiplying by 3	To multiply by 3 using relational properties.
	Lesson 3 – Multiplying by 4	To multiply by 4.
	Lesson 4 – Multiplying by 4	To multiply by 4.
	Lesson 5 – Multiplying by 4 and 8	To multiply by 4 and 8.
	Lesson 6 – Multiplying by 8	To multiply by 8; to use commutative law to multiply.
	Lesson 7 – Multiplying by 8	To multiply by 8.
	Lesson 8 – Dividing by 3	To divide by 3.
	Lesson 9 – Dividing by 4	To divide by 4.
	Lesson 10 – Multiplying and Dividing	To find relationships between multiplication and division.
	Lesson 11 – Dividing by 4 and 8	To divide by 4 and 8.
	Lesson 12 – Solving Word Problems	To solve word problems with multiplication.
	Lesson 13 – Solving Word Problems	To solve word problems that involve division.
	Lesson 14 – Solving Word Problems	To solve more word problems involving multiplication and division using the bar model heuristic.
	Lesson 15 – Solving Word Problems	To solve problems using a variety of strategies.
	Chapter consolidation	To practise various concepts covered in the chapter.

AUTUMN TERM – TEXTBOOK3A

Calculations: Further Multiplication and Division

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 4 – Further Multiplication and Division	Lesson 1 – Multiplying 2-Digit Numbers	To multiply multiples of 10 by a 1-digit number.
	Lesson 2 – Multiplying 2-Digit Numbers	To multiply any 2-digit number by a 1-digit number.
	Lesson 3 – Multiplying 2-Digit Numbers	To multiply more 2-digit numbers.
	Lesson 4 – Multiplying with Regrouping	To multiply with regrouping.
	Lesson 5 – Multiplying with Regrouping	To multiply with regrouping.
	Lesson 6 – Dividing 2-Digit Numbers	To understand simple division of a 2-digit number by a 1-digit number.
	Lesson 7 – Dividing with Regrouping	To divide where there is a need to regroup.
	Lesson 8 – Dividing with Regrouping	To use long division to divide.
	Lesson 9 – Solving Word Problems	To solve word problems that involve multiplication.
	Lesson 10 – Solving Word Problems	To solve word problems involving division.
	Lesson 11 – Solving Word Problems	To solve more challenging word problems.
	Chapter consolidation	To practise various concepts covered in the chapter.

SPRING TERM – TEXTBOOK 3A		
Measurement: Length		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 5 – Length	Lesson 1 – Writing Length in Metres and Centimetres	To use metres and centimetres to measure objects.
	Lesson 2 – Writing Length in Centimetres	To write length in centimetres only by converting metres to centimetres.
	Lesson 3 – Writing Length in Metres	To convert kilometres to metres.
	Lesson 4 – Writing Length in Kilometres and Metres	To convert length from metres to kilometres and metres.
	Lesson 5 – Comparing Length	To compare two lengths.
	Lesson 6 – Solving Word Problems	To solve measurement-related word problems.
	Lesson 7 – Solving Word Problems	To solve other word problems.
	Lesson 8 – Solving Word Problems	To solve word problems further, involving multiplication.
	Lesson 9 – Solving Word Problems	To solve word problems associated with length using division.
	Lesson 10 – Solving Word Problems	To solve more challenging word problems.
	Chapter consolidation	To practise various concepts covered in the chapter.

SPRING TERM –TEXTBOOK 3A

Measurement: Mass

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 6 – Mass	Lesson 1 – Reading Weighing Scales	To measure mass using weighing scales and compare the mass of objects using grams and kilograms.
	Lesson 2 – Reading Weighing Scales	To use weighing scales to measure mass when the mass is between multiples of 100 g.
	Lesson 3 – Reading Weighing Scales	To read values on a scale which are 1 kg or more.
	Lesson 4 – Reading Weighing Scales	To weigh heavier items where the markers in the scales represent 200 g each.
	Lesson 5 – Solving Word Problems	To solve word problems relating to mass with addition and subtraction.
	Lesson 6 – Solving Word Problems	To solve word problems relating to mass using multiplication.
	Lesson 7 – Solving Word Problems	To solve word problems relating to mass using division.
	Chapter consolidation	To practise various concepts covered in the chapter.

SPRING TERM – TEXTBOOK 3A		
Measurement: Volume		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 7 – Volume	Lesson 1 – Measuring Volume in Millilitres	To measure volume in millilitres.
	Lesson 2 – Measuring Capacity in Millilitres	To measure capacity in millilitres.
	Lesson 3 – Measuring Volume in Millilitres and Litres	To measure volume using millilitres and litres.
	Lesson 4 – Measuring Capacity in Millilitres and Litres	To measure volume in millilitres and litres from a 'homemade' bottle with markings.
	Lesson 5 – Writing Volume in Litres and Millilitres	To measure volume using millilitres and litres in comparison to 1 l.
	Lesson 6 – Writing Capacity in Litres and Millilitres	To measure larger capacity in litres and millilitres.
	Lesson 7 – Solving Word Problems	To solve basic word problems related to volume.
	Lesson 8 – Solving Word Problems	To solve more word problems.
	Lesson 9 – Solving Word Problems	To solve word problems through division.
	Lesson 10 – Solving Word Problems	To solve two-step word problems.
	Chapter consolidation	To practise various concepts covered in the chapter.
Week 6	MID-YEAR (A) TESTS AND REMEDIATION	

SPRING TERM – TEXTBOOK 3B

Measurement: Money

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 8 – Money	Lesson 1 – Naming Amounts of Money	To consolidate previous learning about denominations of both notes and coins; to use simple addition to count amounts of money.
	Lesson 2 – Naming Amounts of Money	To name amounts of money including coins above 100p; to regroup and rename 100p as £1 as a key strategy.
	Lesson 3 – Showing Amounts of Money	To find multiple ways of showing an amount of money.
	Lesson 4 – Adding Money	To add money by adding together the pounds and pence separately.
	Lesson 5 – Adding Money	To add amounts of money together using different methods; to consolidate the addition of pounds and pence separately.
	Lesson 6 – Adding Money	To consolidate 'making a pound' as a strategy for adding amounts of money where the coins equal more than 99p.
	Lesson 7 – Adding Money	To learn the 'make a pound' strategy with number bond diagrams; to consolidate the strategies associated with the addition of money.
	Lesson 8 – Subtracting Money	To use multiple methods for subtracting amounts of money, including concrete materials and the column method.
	Lesson 9 – Subtracting Money	To use visual comparison to subtract amounts of money; to consolidate column subtraction where there is no regrouping of pence required.
	Lesson 10 – Subtracting Money	To use number bonds to subtract amounts of money; to develop number sense through decision making.
	Lesson 11 – Subtracting Money	To use number bonds as the primary strategy for subtracting amounts of money; to split pounds and pence simultaneously when subtracting amounts of money.
	Lesson 12 – Calculating Change	To learn the 'counting on' strategy for calculating change; to consolidate the number bonds strategy for calculating change.
	Lesson 13 – Solving Word Problems	To solve word problems involving money using bar modelling as the key strategy; to learn how to use comparative models where pupils are solving by seeing the smaller amount inside of the larger amount.
	Lesson 14 – Solving Word Problems	To use part-whole bar models to represent word problems; to apply addition and subtraction strategies to solve word problems.
	Chapter consolidation	To practise various concepts covered in the chapter.

SPRING TERM – TEXTBOOK 3B

Measurement: Time

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 9 – Time	Lesson 1 – Telling the Time	To use the terms 'a.m.' and 'p.m.' correctly to identify morning or afternoon/evening.
	Lesson 2 – Telling the Time	To learn to tell time to the minute; to understand the relationship between the minute hand and hour hand.
	Lesson 3 – Telling the Time	To consolidate and apply a variety of vocabulary used to express the time.
	Lesson 4 – Telling the Time	To compare analogue and digital time; to represent time using both analogue and digital methods.
	Lesson 5 – Telling the Time	To tell time before the hour using the hour and minute hands.
	Lesson 6 – Telling the Time	To learn to tell time using 24-hour notation; to use analogue time and 24-hour notation interchangeably.
	Lesson 7 – Telling the Time	To tell the time on an analogue clock using Roman numerals.
	Lesson 8 – Measuring and Comparing Time in Seconds	To measure time in seconds and milliseconds.
	Lesson 9 – Measuring Time in Seconds	To measure time in seconds using a stopwatch; to consolidate previous learning about seconds.
	Lesson 10 – Measuring Time in Seconds	To consolidate measuring time in seconds; to conduct a time experiment using seconds.
	Lesson 11 – Measuring Time in Hours	To measure time in hours using an analogue clock.
	Lesson 12 – Measuring Time in Hours	To consolidate the measurement of time in hours.
	Lesson 13 – Measuring Time in Hours	To measure time in hours using analogue clocks and timelines; to count backwards in time by the hour.
	Lesson 14 – Measuring Time in Minutes	To measure the passage of time in minutes using an analogue clock and a timeline.
	Lesson 15 – Measuring Time in Minutes	To measure time to the minute when it crosses into the next hour; to use number bonds to calculate the passage of time.
	Lesson 16 – Measuring Time in Minutes	To measure time in minutes, counting backwards to determine the starting point; to use number bonds and timelines to calculate the passage of time.
	Lesson 17 – Changing Minutes to Seconds	To determine how many seconds are in a minute; to use multiplication to calculate the number of seconds in a number of minutes.
	Lesson 18 – Changing Seconds to Minutes	To convert seconds into minutes using number bonds.
	Lesson 19 – Finding Number of Days	To calculate the number of days in a month; to learn which months have 31, 30 and 28/29 days.
	Lesson 20 – Finding Number of Days	To find the duration of days for different activities.
	Chapter consolidation	To practise various concepts covered in the chapter.

SUMMER TERM – TEXTBOOK 3B		
Statistics: Picture Graphs and Bar Graphs		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 10 – Picture Graphs and Bar Graphs	Lesson 1 – Drawing Picture Graphs	To construct picture graphs from a set of data; to present data with pictures that represent more than one item.
	Lesson 2 – Drawing Bar Graphs	To construct bar graphs from a set of data; to use proportion to reflect precise difference in quantity.
	Lesson 3 – Reading Bar Graphs	To read and interpret information from a bar graph; to use and understand vocabulary related to bar graphs.
	Lesson 4 – Reading Bar Graphs	To read bar graphs where the scale is not a multiple of all quantities measured.
	Lesson 5 – Reading Bar Graphs	To read bar graphs where the scale is made up of larger increments.
	Chapter consolidation	To practise various concepts covered in the chapter.

SUMMER TERM – TEXTBOOK 3B

Fractions, Decimals and Percentages: Fractions

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 11 – Fractions	Lesson 1 – Counting in Tenths	To count in tenths; to recognise tenths and be able to determine how many tenths are shaded.
	Lesson 2 – Making Number Pairs	To make number pairs to create 1; to combine fractions to make 1.
	Lesson 3 – Adding Fractions	To add fractions with the same denominator.
	Lesson 4 – Adding Fractions	To consolidate adding fractions with the same name; to learn how fractions can add to 1.
	Lesson 5 – Subtracting Fractions	To subtract fractions with the same name.
	Lesson 6 – Finding Equivalent Fractions	To find equivalent fractions through paper folding and shading.
	Lesson 7 – Finding Equivalent Fractions	To find equivalent fractions using paper folding and shading.
	Lesson 8 – Finding Equivalent Fractions	To find equivalent fractions; to place fractions on a number line.
	Lesson 9 – Finding Equivalent Fractions	To find fractions equivalent to $^1/_2$; to use pictorial representations and multiplication to show equivalence.
	Lesson 10 – Finding Equivalent Fractions	To find equivalent fractions using concrete objects and pictorial representations.
	Lesson 11 – Finding Equivalent Fractions	To find equivalent fractions using pictorial representations and multiplication.
	Lesson 12 – Finding the Simplest Fraction	To find the simplest fraction using visualisation and concrete materials.
	Lesson 13 – Finding the Simplest Fraction	To find the simplest fraction using pictorial representations and division.
	Lesson 14 – Finding Equivalent Fractions	To find equivalent fractions using multiplication and division; to determine whether or not a fraction is equivalent.
	Lesson 15 – Comparing Fractions	To compare the fractions $^1/_2$ and $^1/_4$ using pictorial representations and concrete materials.

SUMMER TERM –TEXTBOOK 3B

Fractions, Decimals and Percentages: Fractions (continued)

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 11 – Fractions	Lesson 16 – Comparing Fractions	To compare fractions using pictorial representations; to understand the numerical nature of the numerator.
	Lesson 17 – Comparing Fractions	To compare fractions with different names (denominators) using pictorial representations and number lines.
	Lesson 18 – Adding Fractions	To add fractions using pictorial representations; to simplify fractions after adding them.
	Lesson 19 – Subtracting Fractions	To subtract fractions using pictorial representations; to simplify fractions after they have been subtracted.
	Lesson 20 – Subtracting Fractions	To subtract fractions from a whole amount; to use pictorial representations of whole numbers to help subtract fractions.
	Lesson 21 – Finding Part of a Set	To determine a fraction of a whole number using pictorial representations.
	Lesson 22 – Finding Part of a Set	To find a fraction of a whole number using pictorial representations, multiplication and concrete objects.
	Lesson 23 – Finding the Fraction of a Number	To consolidate finding the fraction of a whole number.
	Lesson 24 – Sharing One	To divide 1 between more than 1; to share 1 whole equally between more than 1.
	Lesson 25 – Sharing More Than 1	To share more than 1 using pictorial representations and division.
	Lesson 26 – Sharing More Than 1	To share more than 1; to recognise a whole and its parts using pictures and number lines.
	Lesson 27 – Sharing More Than 1	To show more than 1 whole after sharing a number of items equally; to use pictorial representations to share whole items equally.
	Lesson 28 – Solving Word Problems	To apply bar modelling to represent fractions in word problems; to solve word problems using pictorial representations and abstract methods.
	Lesson 29 – Solving Word Problems	To use bar models to solve word problems involving the fraction $^1/_2$.
	Lesson 30 – Solving Word Problems	To use bar models to solve word problems involving the fractions $^1/_3$ and $^1/_5$.
	Chapter consolidation	To practise various concepts covered in the chapter.

SUMMER TERM –TEXTBOOK 3B		
Geometry – Properties of Shapes: Angles		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 12 – Angles	Lesson 1 – Making Angles	To learn what makes an angle and identify angles in objects.
	Lesson 2 – Making Angles	To see angles on the inside and outside of objects; to find angles in letters.
	Lesson 3 – Finding Angles in Shapes	To find angles in shapes; to determine the relationship between the number of angles in a shape and the number of sides.
	Lesson 4 – Finding Right Angles	To find right angles in everyday objects; to understand what makes a right angle.
	Lesson 5 – Comparing Angles	To compare angles using the terms 'right' angle and 'acute' angle; to identify acute angles as smaller angles than right angles.
	Lesson 6 – Comparing Angles	To identify right angles and acute angles; to recognise and define an obtuse angle.
	Lesson 7 – Making Turns	To make turns using angles vocabulary; to align the language of angles and fractions to describe turns.
	Chapter consolidation	To practise various concepts covered in the chapter.

SUMMER TERM –TEXTBOOK 3B

Geometry – Properties of Shapes: Lines and Shapes

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 13 – Lines and Shapes	Lesson 1 – Identifying Perpendicular Lines	To identify, define and create perpendicular lines; to find perpendicular lines in everyday objects.
	Lesson 2 – Identifying Parallel Lines	To identify, define and create parallel lines; to find parallel lines in everyday objects.
	Lesson 3 – Finding Vertical and Horizontal Lines	To define and identify vertical and horizontal lines; to find vertical and horizontal lines in everyday life.
	Lesson 4 – Describing Two-Dimensional Shapes	To describe 2-D shapes using familiar vocabulary about lines and angles.
	Lesson 5 – Drawing Two-Dimensional Shapes	To draw 2-D shapes in proportion to their size; to identify how big a shape is.
	Lesson 6 – Making Three-Dimensional Shapes	To create 3-D shapes out of nets; to use vocabulary related to 3-D shapes and their properties.
	Lesson 7 – Making Three-Dimensional Shapes	To construct 3-D shapes out of clay and discuss their properties.
	Lesson 8 – Describing Three-Dimensional Shapes	To describe 3-D shapes using familiar terms; to identify properties of 3-D shapes.
	Chapter consolidation	To practise various concepts covered in the chapter.

SUMMER TERM – TEXTBOOK 3B		
Measurement: Perimeter of Figures		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 14 – Perimeter of Figures	Lesson 1 – Measuring Total Length Around a Shape	To determine the perimeter of basic shapes; to use grid paper to measure the perimeter of a shape.
	Lesson 2 – Measuring Perimeter	To measure the perimeter of a shape using 1 cm grid paper.
	Lesson 3 – Measuring Perimeter	To determine the perimeter of different shapes; to create shapes with a specific perimeter.
	Lesson 4 – Measuring Perimeter	To find the perimeter of shapes using 2 cm grids; to identify mistakes in others' work.
	Lesson 5 – Measuring Perimeter	To calculate the perimeter of a shape using a ruler to measure the side lengths.
	Lesson 6 – Calculating Perimeter	To calculate the perimeter of a rectangle using multiplication and addition.
	Lesson 7 – Calculating Perimeter	To calculate the perimeter of a square using addition and multiplication; to calculate the perimeter of rectangles and irregular shapes by adding up the length of each side.
	Lesson 8 – Calculating Perimeter	To consolidate learning about perimeter using practical word problems; to calculate the perimeter of a rectangle using properties of shapes.
	Lesson 9 – Calculating Perimeter	To calculate the perimeter of a square and a rectangle using information previously learned about the properties of shapes.
	Lesson 10 – Calculating Perimeter	To calculate the perimeter of a rectangle when a square piece has been removed; to determine the lengths of sides that are not marked based on information about the piece removed.
	Chapter consolidation	To practise various concepts covered in the chapter.
Week 12	END-OF-YEAR (B) TESTS AND REMEDIATION	

PRIMARY MATHS SERIES – YEAR 4 AT A GLANCE

	AUTUMN TERM	SPRING TERM	SUMMER TERM
Week 1	Number and Place Value: Numbers to 10 000 LESSON BREAKDOWN	Calculations: Further Multiplication and Division LESSON BREAKDOWN	Measurement: Money LESSON BREAKDOWN
Week 2			
Week 3			Measurement: Mass, Volume and Length LESSON BREAKDOWN
Week 4	Calculations: Addition and Subtraction within 10 000 LESSON BREAKDOWN	Statistics: Graphs LESSON BREAKDOWN	
Week 5		Fractions, Decimals and Percentages: Fractions LESSON BREAKDOWN	
Week 6			Measurement: Area of Figures LESSON BREAKDOWN
Week 7			Geometry - Properties of Shapes: Geometry LESSON BREAKDOWN
Week 8	Calculations: Multiplication and Division LESSON BREAKDOWN	Measurement: Time LESSON BREAKDOWN	
Week 9		Mid-year (A) Tests and Remediation	
Week 10		Fractions, Decimals and Percentages: Decimals LESSON BREAKDOWN	Geometry - Position and Direction: Position and Movement LESSON BREAKDOWN
Week 11			Number and Place Value: Roman Numerals LESSON BREAKDOWN
Week 12	Calculations: Further Multiplication and Division LESSON BREAKDOWN		End-of-year (B) Tests and Remediation

AUTUMN TERM – TEXTBOOK 4A

Number and Place Value: Numbers to 10 000

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 1 - Numbers to 10 000	Lesson 1 – Counting in Hundreds and Twenty-Fives	To count in hundreds and twenty-fives.
	Lesson 2 – Counting in Thousands	To count in thousands.
	Lesson 3 – Counting in Thousands, Hundreds, Tens and Ones	To count in thousands, hundreds, tens and ones.
	Lesson 4 – Using Place Value	To use an understanding of place value to count.
	Lesson 5 – Using Place Value	To understand place value in a 4-digit number.
	Lesson 6 – Comparing and Ordering Numbers	To compare and order numbers.
	Lesson 7 – Comparing and Ordering Numbers	To compare and order 4-digit numbers.
	Lesson 8 – Making Number Patterns	To make number patterns (100, 10, 1 more and less).
	Lesson 9 – Making Number Patterns	To make number patterns (4-digit numbers).
	Lesson 10 – Counting in Sixes, Sevens and Nines	To count in sixes, sevens and nines.
	Lesson 11 – Rounding Numbers	To round numbers to the nearest 1000.
	Lesson 12 – Rounding Numbers	To round numbers to the nearest 10, 100 and 1000.
	Lesson 13 – Rounding Numbers to Estimate	To round numbers to estimate.
	Lesson 14 – Rounding Numbers to Estimate	To round numbers to estimate.
	Chapter consolidation	To practise various concepts covered in the chapter.

AUTUMN TERM – TEXTBOOK 4A

Calculations: Addition and Subtraction

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 2 – Addition and Subtraction within 10 000	**Lesson 1 – Finding Sums**	**To find totals and sums.**
	Lesson 2 – Adding without Renaming	**To add without renaming.**
	Lesson 3 – Adding with Renaming	**To add with renaming (in the ones column).**
	Lesson 4 – Adding with Renaming	**To add with renaming (in tens and ones).**
	Lesson 5 – Adding with Renaming	**To add with renaming (in hundreds, tens and ones).**
	Lesson 6 – Adding Using Mental Strategies	**To add using mental strategies (making tens, hundreds and thousands).**
	Lesson 7 – Adding Using Mental Strategies	**To add using mental strategies.**
	Lesson 8 – Finding Differences	**To find the difference.**
	Lesson 9 – Subtracting without Renaming	**To subtract without renaming (column subtraction).**
	Lesson 10 – Subtracting with Renaming	**To subtract with renaming (in tens and ones).**
	Lesson 11 – Subtracting with Renaming	**To subtract with renaming (in hundreds, tens and ones).**
	Lesson 12 – Subtracting with Renaming	**To subtract with renaming (in hundreds, tens and ones).**
	Lesson 13 – Subtracting with Renaming	**To subtract with renaming.**
	Lesson 14 – Subtracting Using Mental Strategies	**To subtract using mental strategies.**
	Lesson 15 – Solving Word Problems	**To solve addition and subtraction word problems.**
	Lesson 16 – Solving Word Problems	**To solve word problems (addition and subtraction).**
	Lesson 17 – Solving Word Problems	**To solve multi-step word problems.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	2 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

AUTUMN TERM – TEXTBOOK 4A

Calculations: Multiplication and Division

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 3 - Multiplication and Division	**Lesson 1 – Multiplying by 6**	**To multiply by 6.**
	Lesson 2 – Multiplying by 7	**To multiply by 7.**
	Lesson 3 – Multiplying by 9	**To multiply by 9.**
	Lesson 4 – Multiplying by 9	**To multiply by 9 (relational understanding).**
	Lesson 5 – Multiplying by 11	**To multiply by 11.**
	Lesson 6 – Multiplying by 11	**To multiply by 11.**
	Lesson 7 – Multiplying by 12	**To multiply by 12.**
	Lesson 8 – Dividing by 6	**To divide by 6.**
	Lesson 9 – Dividing by 7	**To divide by 7.**
	Lesson 10 – Dividing by 9	**To divide by 9.**
	Lesson 11 – Multiplying and Dividing by 11 and 12	**To multiply and divide by 11 and 12.**
	Lesson 12 – Dividing with Remainder	**To divide with remainders.**
	Lesson 13 – Solving Word Problems	**To solve word problems involving multiplication and division.**
	Lesson 14 – Solving Word Problems	**To solve problems involving multiplication and division.**
	Lesson 15 – Solving Word Problems	**To solve multi-step problems (in the context of measures).**
	Lesson 16 – Solving Word Problems	**To solve problems involving multiplication and division (all possibilities).**
	Lesson 17 – Solving Word Problems	**To solve problems involving multiplication and division (multi-step).**
	Lesson 18 – Solving Word Problems	**To solve problems involving multiplication and division (scaling/comparison).**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**

AUTUMN TERM – TEXTBOOK 4A

Calculations: Further Multiplication and Division

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 4 - Further Multiplication and Division	**Lesson 1 – Multiplying by 0 and 1**	**To multiply by 0 and 1.**
	Lesson 2 – Dividing by 1	**To divide by 1.**
	Lesson 3 – Multiplying the Same Two Numbers	**To understand commutativity.**
	Lesson 4 – Multiplying Three Numbers	**To multiply three numbers.**
	Lesson 5 – Multiplying Multiples of 10	**To multiply with multiples of 10.**

SPRING TERM – TEXTBOOK 4A

Calculations: Further Multiplication and Division **(continued from Autumn Term)**

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 4 – Further Multiplication and Division	**Lesson 6 – Multiplying 2-Digit Numbers**	**To multiply 2-digit numbers.**
	Lesson 7 – Multiplying 2-Digit Numbers	**To multiply 2-digit numbers with renaming.**
	Lesson 8 – Multiplying Multiples of 100	**To multiply multiples of 100.**
	Lesson 9 – Multiplying 3-Digit Numbers	**To multiply 3-digit numbers.**
	Lesson 10 – Multiplying 3-Digit Numbers	**To multiply 3-digit numbers (renaming).**
	Lesson 11 – Multiplying 3-Digit Numbers	**To multiply 3-digit numbers.**
	Lesson 12 – Dividing 2-Digit Numbers	**To divide 2-digit numbers.**
	Lesson 13 – Dividing 3-Digit Numbers	**To divide 3-digit numbers.**
	Lesson 14 – Dividing 2-Digit Numbers	**To divide 2-digit numbers with remainders.**
	Lesson 15 – Dividing 3-Digit Numbers	**To divide 3-digit numbers.**
	Lesson 16 – Dividing 3-Digit Numbers	**To divide 3-digit numbers with remainders.**
	Lesson 17 – Solving Word Problems	**To solve multiplication and division word problems.**
	Lesson 18 – Solving Word Problems	**To solve multiplication and division word problems (multi-step).**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

SPRING TERM – TEXTBOOK 4A		
Statistics: Graphs		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 5 - Graphs	**Lesson 1 – Drawing and Reading Picture Graphs and Bar Graphs**	**To draw and read picture graphs and bar graphs.**
	Lesson 2 – Drawing and Reading Bar Graphs	**To draw and read bar graphs.**
	Lesson 3 – Drawing and Reading Line Graphs	**To draw and read line graphs.**
	Lesson 4 – Drawing and Reading Line Graphs	**To draw and read a line graph.**
	Lesson 5 – Drawing and Reading Line Graphs	**To draw and read line graphs (drawing focus).**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

SPRING TERM – TEXTBOOK 4A

Fractions, Decimals and Percentages: Fractions

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 6 - Fractions	**Lesson 1 – Counting in Hundredths**	**To count in hundredths.**
	Lesson 2 – Writing Mixed Numbers	**To write mixed number fractions.**
	Lesson 3 – Showing Mixed Numbers on a Number Line	**To show mixed number fractions on a number line.**
	Lesson 4 – Finding Equivalent Fractions	**To find equivalent fractions.**
	Lesson 5 – Finding Equivalent Fractions	**To find equivalent fractions (further practise).**
	Lesson 6 – Simplifying Mixed Numbers	**To simplify mixed number fractions.**
	Lesson 7 – Simplifying Improper Fractions	**To simplify improper fractions.**
	Lesson 8 – Adding Fractions	**To add fractions.**
	Lesson 9 – Adding Fractions	**To add fractions (recording answers as a mixed number).**
	Lesson 10 – Adding Fractions	**To add fractions (simplest form).**
	Lesson 11 – Subtracting Fractions	**To subtract fractions.**
	Lesson 12 – Subtracting Fractions	**To subtract fractions (equivalence).**
	Lesson 13 – Solving Word Problems	**To solve word problems.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SPRING TERM – TEXTBOOK 4A		
Measurement: Time		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 7: Time	**Lesson 1 – Telling Time on a 24-Hour Clock**	**To tell the time on a 24-hour clock.**
	Lesson 2 – Changing Time in Minutes to Seconds	**To convert between minutes and seconds.**
	Lesson 3 – Changing Time in Hours to Minutes	**To convert between hours and minutes.**
	Lesson 4 – Solving Problems on Duration of Time	**To solve time problems.**
	Lesson 5 – Changing Years to Months and Weeks to Days	**To convert between units of time.**
	Lesson 6 – Solving Word Problems	**To solve word problems (duration).**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
Week 9	**MID-YEAR (A) TESTS AND REMEDIATION**	

SPRING TERM – TEXTBOOK 4B

Fractions, Decimals and Percentages: Decimals

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 8 – Decimals	**Lesson 1 – Writing Tenths**	**To record tenths.**
	Lesson 2 – Writing Tenths	**To record in tenths.**
	Lesson 3 – Writing Tenths	**To record in tenths (in different ways).**
	Lesson 4 – Writing Hundredths	**To write hundredths.**
	Lesson 5 – Writing Hundredths	**To write hundredths.**
	Lesson 6 – Writing Hundredths	**To write hundredths (in different ways).**
	Lesson 7 – Writing Hundredths	**To record hundredths.**
	Lesson 8 – Writing Decimals	**To write decimal numbers.**
	Lesson 9 – Comparing and Ordering Decimals	**To compare and order decimal numbers.**
	Lesson 10 – Comparing and Ordering Decimals	**To compare and order decimal numbers.**
	Lesson 11 – Comparing and Ordering Decimals	**To compare and order decimal numbers.**
	Lesson 12 – Making Number Patterns	**To create number sequences.**
	Lesson 13 – Rounding Decimals	**To round decimal numbers.**
	Lesson 14 – Rounding Decimals	**To round decimal numbers.**
	Lesson 15 – Writing Fractions as Decimals	**To write fractions as decimal numbers.**
	Lesson 16 – Dividing Whole Numbers by 10	**To divide whole numbers by 10.**
	Lesson 17 – Dividing Whole Numbers by 100	**To divide whole numbers by 100.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

SUMMER TERM – TEXTBOOK 4B

Measurement: Money

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 9 – Money	**Lesson 1 – Writing Amounts of Money**	**To record amounts of money.**
	Lesson 2 – Writing Amounts of Money	**To record amounts of money.**
	Lesson 3 – Comparing Amounts of Money	**To compare total amounts of money.**
	Lesson 4 – Rounding Amounts of Money	**To round to the nearest pound (whole number).**
	Lesson 5 – Solving Problems Involving Money	**To solve money problems (addition and subtraction).**
	Lesson 6 – Solving Problems Involving Money	**To solve money problems (multiplication).**
	Lesson 7 – Solving Problems Involving Money	**To solve money problems (comparison).**
	Lesson 8 – Estimating Amounts of Money	**To estimate amounts of money.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SUMMER TERM – TEXTBOOK 4B

Measurement: Mass, Volume and Length

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 10 – Mass, Volume and Length	**Lesson 1 – Measuring Mass**	**To measure mass.**
	Lesson 2 – Measuring Mass	**To measure mass.**
	Lesson 3 – Converting Units of Mass	**To convert units of mass.**
	Lesson 4 – Measuring Volume	**To measure volume.**
	Lesson 5 – Measuring Volume	**To measure volume.**
	Lesson 6 – Converting Units of Volume	**To convert units of volume.**
	Lesson 7 – Measuring Height	**To measure height.**
	Lesson 8 – Measuring Length	**To measure length.**
	Lesson 9 – Converting Units of Length	**To convert units of length.**
	Lesson 10 – Converting Units of Length	**To convert units of length.**
	Lesson 11 – Measuring Perimeters in Different Units	**To measure perimeter in centimetres and millimetres.**
	Lesson 12 – Solving Problems Involving Scale Reading	**To solve problems in measurement (reading scales).**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	2 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SUMMER TERM – TEXTBOOK 4B

Measurement: Area of Figures

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 11 - Area of Figures	**Lesson 1 – Measuring the Surface that an Object Covers**	**To find area (by measuring surface coverage).**
	Lesson 2 – Measuring Area	**To measure area.**
	Lesson 3 – Measuring Area	**To measure area (counting squares).**
	Lesson 4 – Measuring Area	**To measure area (counting squares and half squares).**
	Lesson 5 – Measuring Area	**To measure area (using multiplication).**
	Lesson 6 – Measuring Area	**To measure area (shapes in different orientations).**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

SUMMER TERM – TEXTBOOK 4B

Geometry – Properties of Shapes: Geometry

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 12 – Geometry	**Lesson 1 – Knowing Types of Angles**	**To identify types of angles.**
	Lesson 2 – Comparing Angles	**To compare angles.**
	Lesson 3 – Classifying Triangles	**To classify triangles.**
	Lesson 4 – Classifying Quadrilaterals	**To classify quadrilaterals.**
	Lesson 5 – Identifying Symmetrical Figures	**To identify symmetrical figures.**
	Lesson 6 – Drawing Lines of Symmetry	**To draw lines of symmetry.**
	Lesson 7 – Completing Symmetrical Figures	**To draw symmetrical figures.**
	Lesson 8 – Making Symmetrical Figures	**To make symmetrical figures.**
	Lesson 9 – Completing Symmetrical Figures	**To complete symmetrical figures.**
	Lesson 10 – Sorting Shapes	**To sort shapes.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	1–2 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SUMMER TERM – TEXTBOOK 4B

Geometry – Position and Direction: Position and Movement

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 13 – Position and Movement	**Lesson 1 – Describing Position**	**To describe position.**
	Lesson 2 – Describing Position	**To describe position.**
	Lesson 3 – Plotting Points	**To plot coordinates.**
	Lesson 4 – Describing Movements	**To describe movements.**
	Lesson 5 – Describing Movements	**To describe movements (coordinates).**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

SUMMER TERM – TEXTBOOK 4B

Number and Place Value: Roman Numerals

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 14 - Roman Numerals	**Lesson 1 – Writing Roman Numerals for 1 to 20**	**To write Roman numerals (to 20).**
	Lesson 2 – Writing Roman Numerals to 100	**To write Roman numerals to 100.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	2 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**
Week 12	**END-OF-YEAR (B) TESTS AND REMEDIATION**	

PRIMARY MATHS SERIES – YEAR 5 AT A GLANCE

	AUTUMN TERM	SPRING TERM	SUMMER TERM
Week 1	Number and Place Value: Numbers to 1 000 000 LESSON BREAKDOWN	Fractions, Decimals and Percentages: Fractions LESSON BREAKDOWN	Geometry – Position and Direction: Position and Movement LESSON BREAKDOWN
Week 2			Measurement: Measurements LESSON BREAKDOWN
Week 3			
Week 4	Calculations: Addition and Subtraction LESSON BREAKDOWN		
Week 5		Mid-year (A) Tests and Remediation	Measurement: Area and Perimeter LESSON BREAKDOWN
Week 6	Calculations: Multiplication and Division LESSON BREAKDOWN	Fractions, Decimals and Percentages: Decimals LESSON BREAKDOWN	
Week 7			
Week 8			Measurement: Volume LESSON BREAKDOWN
Week 9		Fractions, Decimals and Percentages: Percentage LESSON BREAKDOWN	
Week 10	Calculations: Word Problems LESSON BREAKDOWN	Geometry – Properties of Shapes: Geometry LESSON BREAKDOWN	Number and Place Value: Roman Numerals LESSON BREAKDOWN
Week 11	Statistics: Graphs LESSON BREAKDOWN		Review and Revision
Week 12			End-of-year (B) Tests and Remediation

AUTUMN TERM – TEXTBOOK 5A

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 8 – Making Number Patterns	**To make and identify patterns in numbers using knowledge of place value.**
	Lesson 9 – Making Number Patterns	**To make number patterns that decrease in multiples of 10 000 or 100 000.**
	Lesson 10 – Rounding Numbers	**To round numbers to the nearest 10 000 using number lines and bar graphs.**
	Lesson 11 – Rounding Numbers	**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.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	2 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

AUTUMN TERM – TEXTBOOK 5A		
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 – Counting Backwards to Subtract	**To subtract using the 'counting backwards' strategy with concrete materials.**
	Lesson 3 – Adding within 1 000 000	**To add numbers within 1 000 000 using rounding and concrete materials.**
	Lesson 4 – Adding and Subtracting within 1 000 000	**To use addition and subtraction to solve comparison problems with numbers to 1 000 000.**
	Lesson 5 – Adding within 1 000 000	**To add numbers within 1 000 000 using the column method of addition.**
	Lesson 6 – Subtracting within 1 000 000	**To subtract using the column method, number bonds and number discs using numbers to 1 000 000.**
	Lesson 7 – Adding and Subtracting within 1 000 000	**To add and subtract using number bonds as a key strategy using numbers within 1 000 000.**
	Lesson 8 – Adding within 1 000 000	**To consolidate and refine addition skills and place-value knowledge to solve addition problems.**
	Lesson 9 – Subtracting within 1 000 000	**To subtract numbers to 1 000 000 using concrete materials, the column method and number bonds.**
	Lesson 10, Part 1 – Subtracting within 1 000 000	**To consolidate and refine subtraction skills and place-value knowledge to solve subtraction problems.**
	Lesson 10, Part 2 – Subtracting within 1 000 000	**To consolidate and refine subtraction skills and place-value knowledge to solve subtraction problems.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

AUTUMN TERM – TEXTBOOK 5A

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 – Finding Prime Numbers	**To define and determine prime numbers to 100.**
	Lesson 6 – Finding Square and Cube Numbers	**To create and determine square and cubed numbers.**
	Lesson 7 – Multiplying 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.**
	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.**

AUTUMN TERM – TEXTBOOK 5A

Calculations: Multiplication and Division **(continued)**

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 3 - Whole Numbers: Multiplication and Division	**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 3-Digit and 4-Digit Numbers	**To divide 3- and 4-digit numbers by 1-digit numbers, using number bonds and long division as the key methods.**
	Lesson 18 – Dividing 4-Digit Numbers	**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.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

AUTUMN TERM – TEXTBOOK 5A

Calculations: Word Problems

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 4 - Whole Numbers: Word Problems	**Lesson 1 – Solving Word Problems**	**To solve word problems involving multiple operations; to identify the operation needed to carry out the plan.**
	Lesson 2 – Solving Word Problems	**To solve word problems involving multiplication and division using bar models as the main heuristic.**
	Lesson 3 – Solving Word Problems	**To solve word problems involving multiple operations, identifying key information and representing information using bar model diagrams.**
	Lesson 4 – Solving Word Problems	**To solve word problems involving multiple operations, using bar models as they key heuristic to represent key information.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

AUTUMN TERM – TEXTBOOK 5A

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.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	2 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SPRING TERM – TEXTBOOK 5A

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 Fractions	To compare and order improper fractions using the pictorial method.
	Lesson 6 – Comparing and Ordering Fractions	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 Fractions by Whole Numbers	To multiply fractions by whole numbers creating other fractions, mixed numbers or improper fractions.

SPRING TERM – TEXTBOOK 5A		
Fractions, Decimals and Percentages: Fractions (continued)		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 6 - Fractions	**Lesson 16 – Multiplying Fractions by Whole Numbers**	**To multiply fractions by whole numbers where the product is an improper fraction or mixed number.**
	Lesson 17 – Multiplying Mixed Numbers	**To multiply mixed numbers by whole numbers, creating larger mixed numbers.**
	Lesson 18 – Multiplying Mixed Numbers by Whole Numbers	**To multiply mixed numbers by whole numbers in multi-step word problems.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**
Week 5	MID-YEAR (A) TESTS AND REMEDIATION	

SPRING TERM – TEXTBOOK 5B

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.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

SPRING TERM – TEXTBOOK 5B

Fractions, Decimals and Percentages: Percentage

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 8 - Percentage	**Lesson 1 – Comparing Quantities**	**To compare quantities; to compare fractions, decimals and percentages; to convert fractions to decimals and percentages.**
	Lesson 2 – Finding Percentages	**To convert values of an amount into percentages; to convert fractions into percentages.**
	Lesson 3 – Finding Percentages	**To convert values of an amount into percentages; to convert fractions into percentages.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SPRING TERM – TEXTBOOK 5B

Geometry - Properties of Shapes: Geometry

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 9 - Geometry	**Lesson 1 – Knowing 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	**To draw, measure and add angles using a protractor.**
	Lesson 4 – Investigating Angles on a Line	**To measure angles using a protractor; to identify two angles which add up to 180 degrees on a straight line.**
	Lesson 5 – Investigating Angles at a Point	**To investigate angles that, when combined, make 360 degrees.**
	Lesson 6 – Drawing Angles	**To draw angles using a protractor.**
	Lesson 7 – Drawing Lines and Angles	**To draw lines and angles with a high level of accuracy.**
	Lesson 8 – Describing Squares and Rectangles	**To describe the sides and angles of both rectangles and squares.**
	Lesson 9 – Investigating Angles in Squares and Rectangles	**To investigate the angles of various quadrilaterals, including squares and rectangles.**
	Lesson 10 – Solving Problems Involving Angles in Rectangles	**To solve problems involving angles in rectangles.**
	Lesson 11 – Solving Problems Involving Angles	**To solve problems involving angles.**
	Lesson 12 – Solving Problems Involving Angles	**To use our understanding of angles to solve problems.**
	Lesson 13 – Investigating Regular Polygons	**To investigate regular polygons.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SUMMER TERM – TEXTBOOK 5B

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 Movements	**To describe movements and reflecting shapes.**
	Lesson 4 – Describing Movements	**To describe the movement of a 2-D shape when reflected.**
	Lesson 5 – Successive Reflections	**To reflect a shape more than once.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

SUMMER TERM – TEXTBOOK 5B

Measurement: Measurements

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 11 – Measurements	**Lesson 1 – Converting Units of Length**	**To convert units of length.**
	Lesson 2 – Converting Units of Length	**To convert units of length, including centimetres and metres.**
	Lesson 3 – Converting Units of Length	**To convert units of length.**
	Lesson 4 – Converting Units of Length	**To solve problems by converting units of length.**
	Lesson 5 – Converting Units of Mass	**To convert units of mass.**
	Lesson 6 – Converting Units of Mass	**To convert units of mass, including grams into kilograms.**
	Lesson 7 – Converting Units of Mass	**To convert units of mass.**
	Lesson 8 – Converting Units of Mass	**To convert units of mass, including kilograms and pounds.**
	Lesson 9 – Converting Units of Time	**To convert units of time.**
	Lesson 10 – Converting Units of Time	**To convert units of time from days into weeks and months.**
	Lesson 11 – Converting Units of Time	**To convert units of time.**
	Lesson 12 – Converting Units of Time	**To solve problems by converting units of time.**
	Lesson 13 – Converting Units of Time	**To convert units of time.**
	Lesson 14 – Telling the Temperature	**To read the temperature on a thermometer.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

SUMMER TERM – TEXTBOOK 5B

Measurement: Area and Perimeter

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 12 – Area and Perimeter	**Lesson 1 – Finding the Perimeter**	**To find the perimeter of shapes.**
	Lesson 2 – Finding the Perimeter	**To find shapes with a specific perimeter.**
	Lesson 3 – Finding the Perimeter	**To find the perimeter of different shapes.**
	Lesson 4 – Using Scale Diagrams to Find the Perimeter	**To use scale diagrams to find the perimeter of a shape.**
	Lesson 5 – Measuring the Area	**To measure the area of shapes by counting squares.**
	Lesson 6 – Measuring the Area	**To measure the area of squares.**
	Lesson 7 – Measuring the Area	**To measure the area of a shape.**
	Lesson 8 – Measuring the Area	**To measure area in square metres.**
	Lesson 9 – Measuring the Area	**To measure area in square metres.**
	Lesson 10 – Measuring the Area	**To find the area of shapes in square metres.**
	Lesson 11 – Estimating the Area	**To make an estimation of area in kilometres.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	3 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SUMMER TERM – TEXTBOOK 5B

Measurement: Volume

Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 13 – Volume	**Lesson 1 – Understanding the Volume of Solids**	**To understand the volume of solids.**
	Lesson 2 – Finding the Volume of Solids	**To find the volume of 3-D shapes.**
	Lesson 3 – Finding the Volume of Solids	**To find the volume of solids.**
	Lesson 4 – Finding the Capacity of Rectangular Boxes	**To find the capacity of a cuboid.**
	Lesson 5 – Finding the Capacity of Rectangular Boxes	**To find the capacity of rectangular boxes.**
	Lesson 6 – Converting Units of Volume	**To compare and convert units of volume.**
	Lesson 7 – Converting Units of Volume	**To convert units of volume (metric and imperial).**
	Lesson 8 – Converting Units of Volume	**To convert units of volume (metric and imperial).**
	Lesson 9 – Solving Word Problems Involving Volume	**To solve word problems involving volume.**
	Lesson 10 – Solving Word Problems Involving Volume	**To solve word problems involving volume.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**

SUMMER TERM – TEXTBOOK 5B		
Number and Place Value: Roman Numerals		
Maths — No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 14 – Roman Numerals	**Lesson 1 – Writing Roman Numerals to 1000**	**To write Roman numerals to 1000.**
	Lesson 2 – Writing Years in Roman Numerals	**To write numbers in their thousands in Roman numerals.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	2 consolidation days	**To be used if lessons take longer than expected or a topic needs to be revisited.**
Week 11	REVIEW AND REVISION	
Week 12	END-OF-YEAR (B) TESTS AND REMEDIATION	

PRIMARY MATHS SERIES – YEAR 6 AT A GLANCE

	AUTUMN TERM	SPRING TERM	SUMMER TERM
Week 1	Number and Place Value: Numbers to 10 Million LESSON BREAKDOWN	Measurement: Measurements LESSON BREAKDOWN	Statistics: Graphs and Averages LESSON BREAKDOWN
Week 2	Calculations: Four Operations on Whole Numbers LESSON BREAKDOWN	Word Problems LESSON BREAKDOWN	
Week 3		Mid-year (A) Tests and Remediation	Number and Place Value: Negative Numbers LESSON BREAKDOWN
Week 4		Fractions, Decimals and Percentages: Percentage LESSON BREAKDOWN	SATs
Week 5		Ratio and Proportion: Ratio LESSON BREAKDOWN	Measurement: Volume LESSON BREAKDOWN
Week 6	Fractions, Decimals and Percentages: Fractions LESSON BREAKDOWN		Geometry – Properties and Shapes: Geometry LESSON BREAKDOWN
Week 7		Algebra: Algebra LESSON BREAKDOWN	
Week 8			Geometry – Position and Direction: Position and Movement LESSON BREAKDOWN
Week 9	Fractions, Decimals and Percentages: Decimals LESSON BREAKDOWN	Measurement: Area and Perimeter LESSON BREAKDOWN	Statistics: Graphs and Averages LESSON BREAKDOWN
Week 10			Revisit Topics
Week 11		Geometry – Properties and Shapes: Geometry LESSON BREAKDOWN	Revision and End-of-year (B) Tests
Week 12	Measurement: Measurements LESSON BREAKDOWN	Geometry – Position and Direction: Position and Movement LESSON BREAKDOWN	Revisit Topics

AUTUMN TERM – TEXTBOOK6A

Number and Place Value: Numbers to 10 Million

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 1 – Numbers to 10 Million	Lesson 1 – Reading and Writing Numbers to 10 Million	To create and identify numbers to 10 000 000 ; to write in numerals and words numbers to 10 000 000.
	Lesson 2 – Reading and Writing Numbers to 10 Million	To construct and record numbers to 10 000 000; to recognise the value of digits to 10 000 000.
	Lesson 3 – Reading and Writing Numbers to 10 Million	To recognise and construct numbers to 10 000 000 using an abacus; to recognise the value of digits in numbers to 10 000 000 and write numbers using numerals and words.
	Lesson 4 – Comparing Numbers to 10 Million	To compare numbers to 10 000 000 using place value.
	Lesson 5 – Comparing and Ordering Numbers to 10 Million	To compare and order numbers to 10 000 000; to create combinations of numbers using a fixed number of digits.
	Lesson 6 – Rounding Numbers	To round numbers to 10 000 000 to the nearest miliion, hundred thousand and ten thousand.
	Lesson 7 – Rounding Numbers	To round numbers to the nearest appropriate number up to and including millions; to determine when rounding is appropriate and to which value.
	Chapter consolidation	To practise various concepts covered in the chapter.

AUTUMN TERM – TEXTBOOK 6A

Calculations: Four Operations on Whole Numbers

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 2 – Four Operations on Whole Numbers	Lesson 1 – Using Mixed Operations	To use multiple operations and create expressions from a picture; to use the order of operations to solve expressions.
	Lesson 2 – Using Mixed Operations	To create and solve expressions using the four operations.
	Lesson 3 – Multiplying by 2-Digit Numbers	To multiply numbers by multiples of 10; to use number bonds as a key strategy in multiplication.
	Lesson 4 – Multiplying by 2-Digit Numbers	To multiply 3- and 4-digit numbers by 2-digit numbers without regrouping or renaming; to use both number bonds and the column method as key strategies.
	Lesson 5 – Multiplying by 2-Digit Numbers	To multiply 3- and 4-digit numbers by 2-digit numbers without regrouping or renaming; to use both number bonds and the column method as key strategies.
	Lesson 6 – Multiplying by 2-Digit Numbers	To multiply 3- and 4-digit numbers by 2-digit numbers with regrouping and renaming; to use number bonds and pattern recognition as key strategies for multiplication.
	Lesson 7 – Multiplying by 2-Digit Numbers	To multiply 3- and 4-digit numbers by 2-digit numbers with regrouping and renaming; to use number bonds and the column method as key strategies.
	Lesson 8 – Estimating Products of Large Numbers	To estimate products of multiplying 3- and 4-digit numbers by a 2-digit numbers; to use knowledge of multiplication to create specific products.
	Lesson 9 – Dividing by 2-Digit Numbers	To divide 3-digit numbers by 2-digit numbers using a variety of strategies; to use number bonds, long division and bar models to facilitate division by 2-digit numbers.
	Lesson 10 – Dividing by 2-Digit Numbers	To divide 4-digit numbers by 2-digit numbers; to use number bonds and long division as the key strategies.
	Lesson 11 – Dividing by 2-Digit Numbers	To divide 4-digit numbers by 2-digit numbers using a variety of methods; to use number bonds, long and short division as key methods.
	Lesson 12 – Dividing by 2-Digit Numbers	To divide 3-digit numbers by 2-digit numbers giving rise to remainders; to use number bonds and long and short division as key strategies to solve division problems.
	Lesson 13 – Dividing by 2-Digit Numbers	To divide 4-digit numbers by 2-digit numbers giving rise to a remainder; to represent the remainder as part of a whole amount of money or decimal.

AUTUMN TERM – TEXTBOOK 6A		
Calculations: Four Operations on Whole Numbers (continued)		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 2 – Four Operations on Whole Numbers	Lesson 14 – Solving Word Problems	To use the bar model heuristic to solve word problems involving multiplication and division.
	Lesson 15 – Solving Word Problems	To solve word problems using division as the main strategy; to use pictorial representations to support word problems.
	Lesson 16 – Solving Word Problems	To solve word problems involving multiple operations, including multiplication and division.
	Lesson 17 – Finding Common Multiples	To find common multiples in real-life situations; to use common multiples in tandem with knowledge of time.
	Lesson 18 – Finding Common Multiples	To use common multiples to solve problems; to organise mathematical thinking into tables and lists.
	Lesson 19 – Finding Common Factors	To find the largest common factor of 3-digit numbers; to use multiplication and division to find largest common factors.
	Lesson 20 – Finding Common Factors	To find common factors using concrete materials.
	Lesson 21 – Finding Prime Numbers	To use prime numbers to create other numbers; to explore prime numbers above 100.
	Lesson 22 – Finding Prime Numbers	To explore prime numbers using concrete materials; to identify prime numbers using multiplication or division.
	Chapter consolidation	To practise various concepts covered in the chapter.

AUTUMN TERM – TEXTBOOK 6A

Fractions, Decimals and Percentages: Fractions

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 3 – Fractions	Lesson 1 – Simplifying Fractions	To use concrete materials to simplify fractions; to recognise equivalence in fractions to $^1/_4$.
	Lesson 2 – Simplifying Fractions	To simplify fractions using division and common factors; to represent fractions using concrete materials and pictorial representations.
	Lesson 3 – Comparing and Ordering Fractions	To compare fractions and place them in order from smallest to largest.
	Lesson 4 – Comparing and Ordering Fractions	To compare and order fractions by finding common denominators.
	Lesson 5 – Comparing and Ordering Fractions	To compare and order fractions using common factors.
	Lesson 6 – Adding and Subtracting Fractions	Adding and subtracting fractions with different denominators; using pictorial representations to compare fractions and add/subtract.
	Lesson 7 – Adding and Subtracting Fractions	To add and subtract fractions of different denominators; to develop questions and word problems based on the information provided.
	Lesson 8 – Adding and Subtracting Fractions	To add and subtract fractions with different denominators.
	Lesson 9 – Adding and Subtracting Fractions	To add and subtract mixed numbers, including fractions with different denominators; to subtract from the whole and add the remainder back on.
	Lesson 10 – Adding and Subtracting Fractions	To add and subtract fractions with different denominators; to add and subtract mixed numbers.
	Lesson 11 – Multiplying Fractions	To multiply fractions using pictorial representations and abstract methods.
	Lesson 12 – Multiplying Fractions	To determine if the commutative law applies to fractions; to multiply fractions using concrete materials and pictorial representations.
	Lesson 13 – Multiplying Fractions	To use concrete materials to understand and solve the multiplication of fractions; to simplify equations using pattern blocks.
	Lesson 14 – Dividing a Fraction by a Whole Number	To divide a fraction by a whole number; to use pictorial representation to divide whole numbers into fractions.
	Lesson 15 – Dividing a Fraction by a Whole Number	To divide fractions by whole numbers using concrete materials and pictorial representations; to divide fractions when the numerator and divisor are not easily divisible.
	Lesson 16 – Dividing a Fraction by a Whole Number	To divide fractions by a whole number; to use pictorial representations to support division.
	Chapter consolidation	To practise various concepts covered in the chapter.

AUTUMN TERM – TEXTBOOK6A

Fractions, Decimals and Percentages: Decimals

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 4 – Decimals	Lesson 1 – Writing and Reading Decimals	To read and write decimals to thousandths; to use concrete materials to represent decimals.
	Lesson 2 – Dividing Whole Numbers	To divide whole numbers by larger whole numbers; to use Base 10 materials to represent tenths, hundredths and thousandths.
	Lesson 3 – Dividing Whole Numbers	To divide whole numbers that give rise to decimals; to calculate decimal fraction equivalents using long division.
	Lesson 4 – Writing Fractions as Decimals	To convert fractions into decimals using bar models and long division.
	Lesson 5 – Writing Fractions as Decimals	To write fractions as decimals; to use long division as the key strategy for turning fractions into decimals.
	Lesson 6 – Multiplying Decimals	To multiply decimals by whole numbers using partitioning or the worded method to help find the solution.
	Lesson 7 – Multiplying Decimals	To multiply whole numbers that include a decimal by other whole numbers; to use partitioning and the worded method as key strategies.
	Lesson 8 – Multiplying Decimals	To multiply decimals by whole numbers, including regrouping and renaming.
	Lesson 9 – Multiplying Decimals	To multiply decimals by whole numbers using a variety of methods; to use the heuristic 'making a list' to help solve a problem.
	Lesson 10 – Dividing Decimals	To divide decimals using number bonds and number discs as the key strategies.
	Lesson 11 – Dividing Decimals	To divide decimals using bar models, number bonds and long division as key strategies, including regrouping and renaming.
	Lesson 12 – Multiplying a Decimal by a 2-Digit Whole Number	To multiply decimals by a 2-digit whole number using number discs and the column method.
	Lesson 13 – Dividing a Decimal by a 2-Digit Whole Number	To divide decimals by 2-digit numbers using number bonds and the worded method.
	Lesson 14 – Dividing a Decimal by a 2-Digit Whole Number	To divide decimals by 2-digit whole numbers using number bonds and the worded method.
	Chapter consolidation	To practise various concepts covered in the chapter.

AUTUMN TERM – TEXTBOOK 6A		
Measurement: Measurements		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 5 – Measurements	Lesson 1 – Converting Units of Length	To convert common measurements into metres, centimetres and millimetres.
	Lesson 2 – Converting Units of Length	To convert units of measure into different units; to use knowledge of decimals and fractions to help convert units.
	Lesson 3 – Converting Units of Length	To convert metres into kilometres as units of measure.
	Lesson 4 – Converting Units of Mass	To convert units of mass from grams to kilograms using decimals and fractions.
	Lesson 5 – Converting Units of Volume	To convert units of volume from millilitres to litres.

SPRING TERM – TEXTBOOK 6A		
Measurement: Measurements (continued from Autumn term)		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 5 – Measurements	**2 revision days**	**To revisit lessons 1–5.**
	Lesson 6 – Converting Units of Time	**To convert units of time from minutes to hours; to represent time using 24-hour notation.**
	Chapter consolidation	**To practise various concepts covered in the chapter.**
	1 consolidation day	**To be used if lessons take longer than expected or a topic needs to be revisited.**

SPRING TERM – TEXTBOOK 6A		
Word Problems		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 6 – Word Problems	Lesson 1 – Solving Word Problems	To use bar models to solve word problems involving the four operations.
	Lesson 2 – Solving Word Problems	To use the bar model heuristic to solve word problems involving the four operations.
	Lesson 3 – Solving Word Problems	To use the bar model heuristic to solve complex word problems involving time.
	Lesson 4 – Solving Word Problems	To solve complex word problems using pictorial representation and the four operations.
	Lesson 5 – Solving Word Problems	To create and solve word problems that apply the bar model heuristic and working backwards as the main strategies.
	Lesson 6 – Solving Word Problems	To create and solve complex word problems using the four operations.
	Chapter consolidation	To practise various concepts covered in the chapter.
Week 3	MID-YEAR (A) TESTS AND REMEDIATION	

SPRING TERM – TEXTBOOK 6B		
Fractions, Decimals and Percentages: Percentage		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 7 – Percentage	Lesson 1 – Finding the Percentage of a Number	To find the percentage of a whole number using division and multiplication; to use bar modelling as a pictorial approach to calculating percentage.
	Lesson 2 – Finding the Percentage of a Quantity	To find the percentage of a quantity; to use bar model diagrams to support the division and multiplication of numbers towards the percentage.
	Lesson 3 – Finding Percentage Change	To find the percentage change in an amount over time; to calculate the percentage change where the number gives rise to a decimal.
	Lesson 4 – Using Percentage to Compare	To use percentage, bar models and fractions to compare amounts.
	Chapter consolidation	To practise various concepts covered in the chapter.

SPRING TERM – TEXTBOOK 6B

Ratio and Proportion: Ratio

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 8 – Ratio	Lesson 1 – Comparing Quantities	To use ratios and fractions to compare objects; to find the relationship between ratios, percentages and fractions.
	Lesson 2 – Comparing Quantities	To determine the ratio of a quantity using concrete materials; to simplify ratios using concrete materials in addition to division.
	Lesson 3 – Comparing Quantities	To compare more than two quantities using the term 'ratio'; to use bar models to express ratios where there is more than one quantity.
	Lesson 4 – Comparing Quantities	To compare quantity using both fractions and ratios; to use bar model diagrams to represent ratios.
	Lesson 5 – Comparing Quantities	To compare quantities using bar models and common factors; to use multiplication and division to simplify ratios.
	Lesson 6 – Comparing Numbers	To compare numbers using ratios; to make decisions about simplifying ratios using division.
	Lesson 7 – Solving Word Problems	To solve word problems using a variety of heuristics including guess-and-check and bar models; to apply knowledge of ratios to word problems.
	Lesson 8 – Solving Word Problems	To solve word problems using the bar model heuristic; to employ division and multiplication as primary strategies when solving word problems visually.
	Lesson 9 – Solving Word Problems	To apply the guess-and-check and advanced bar model heuristic to ratio word problems.
	Chapter consolidation	To practise various concepts covered in the chapter.

SPRING TERM – TEXTBOOK 6B

Algebra: Algebra

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 9 – Algebra	Lesson 1 – Describing a Pattern	To determine a pattern using concrete materials and pictorial representation; to use a table to identify a repeating pattern; to express a rule using a letter or symbol.
	Lesson 2 – Describing a Pattern	To determine a pattern using concrete materials and pictorial representation; to use a table to identify a repeating pattern; to express the relationship between consecutive numbers in terms of a symbol or letter.
	Lesson 3 – Describing a Pattern	To determine a pattern using concrete materials and pictorial representation; to use a table to identify a pattern; to express the relationship between consecutive numbers in terms of a symbol or letter.
	Lesson 4 – Describing a Pattern	To determine a pattern using concrete materials and pictorial representation; to use a table to identify a pattern; to express unknown numbers in terms of a letter or symbol, including using a number before a letter for multiplication.
	Lesson 5 – Writing Algebraic Expressions	To use a table to identify a pattern; to write algebraic expressions using each of the four operations.
	Lesson 6 – Writing and Evaluating Algebraic Expressions	To use examples to identify rules; to write algebraic expressions using each of the four operations; to evaluate algebraic expressions including the use of inverse operations.
	Lesson 7 – Writing and Evaluating Algebraic Expressions	To recognise patterns; to write algebraic expressions with two steps; to evaluate algebraic expressions with two steps.
	Lesson 8 – Writing Formulae	To recognise patterns; to write and evaluate algebraic expressions with two steps; to write and use formulae.
	Lesson 9 – Using Formulae	To use formulae to solve problems; to replace a letter/variable with a number then solve the equation; to use inverse operations to solve equations.
	Lesson 10 – Solving Equations	To solve equations; to use equations to find unknown values.
	Chapter consolidation	To practise various concepts covered in the chapter.

SPRING TERM – TEXTBOOK 6B

Measurement: Area and Perimeter

Maths—No Problem! Book Reference	Lesson Name	Lesson Objective
Chapter 10 – Area and Perimeter Lessons 1–6	Lesson 1 – Finding the Area and the Perimeter of Rectangles	To find the area and perimeter of rectangles; to calculate perimeter using the known area and vice versa.
	Lesson 2 – Finding the Area of Parallelograms	To find and calculate the area of a parallelogram; to use concrete materials and prior understanding of area to construct a formula for the area.
	Lesson 3 – Finding the Area of Triangles	To use prior knowledge of area to determine and solve the area of a triangle; to use and apply the formula for the area of a rectangle to solve problems involving triangles.
	Lesson 4 – Finding the Area of Triangles	To calculate the area of a triangle using a formula; to calculate the area of a triangle in multiple ways.
	Lesson 5 – Finding the Area of Triangles	To use multiple methods to solve the area of a triangle.
	Lesson 6 – Finding the Area of Parallelograms	To find the area of a parallelogram using an understanding of triangles; to use concrete materials to find the area of a parallelogram.
	Chapter consolidation	To practise various concepts covered in the chapter.
	3 consolidation days	To be used if lessons take longer than expected or a topic needs to be revisited.

SPRING TERM – TEXTBOOK 6B		
Geometry – Properties and Shapes: Geometry		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 12 – Geometry Lessons 1–5	Lesson 1 – Investigating Vertically Opposite Angles	To investigate opposite angles; to use prior knowledge of angles to solve problems involving angles.
	Lesson 2 – Solving Problems Involving Angles	To solve problems involving angles using the bar model heuristic; to solve problems involving angles without protractors.
	Lesson 3 – Investigating Angles in Triangles	To determine and show the sum of the angles inside a triangle.
	Lesson 4 – Investigating Angles in Quadrilaterals	To investigate and determine angles in quadrilaterals.
	Lesson 5 – Solving Problems Involving Angles in Triangles and Quadrilaterals	To use the knowledge of angles inside a triangle and a quadrilateral to solve problems involving angles in other shapes.

SPRING TERM – TEXTBOOK 6B		
Geometry – Position and Direction: Position and Movement		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 12 – Position and Movement Lessons 1–5	Lesson 1 – Showing Negative Numbers	To represent negative numbers on both vertical and horizontal number lines.
	Lesson 2 – Describing Position	To describe the positions of objects on a coordinate grid; to use x and y axes to determine the position of objects on a grid.
	Lesson 3 – Describing Position	To describe the position of points using coordinates on a grid.
	Lesson 4 – Drawing Polygons on a Coordinate Grid	To draw polygons on a coordinate grid; to recognise polygons on a coordinate grid.
	Lesson 5 – Describing Translations	To describe the translation of shapes on a coordinate grid.

SUMMER TERM – TEXTBOOK 6B		
Statistics: Graphs and Averages		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 14 – Graphs and Averages Lessons 1–10	Lesson 1 – Understanding Averages	To calculate the average (mean) of sets of values.
	Lesson 2 – Calculating the Mean	To calculate the mean.
	Lesson 3 – Calculating the Mean	To calculate the mean.
	Lesson 4 – Solving Problems Involving the Mean	To solve problems involving the mean; to use the mean and the number of values to calculate the total; to use given information to find unknown values.
	Lesson 5 – Showing Information on Graphs	To show information on graphs; to transfer information from a table to a pie chart.
	Lesson 6 – Reading Pie Charts	To read and interpret pie charts.
	Lesson 7 – Reading Pie Charts	To read and interpret pie charts; to use percentages in pie charts.
	Lesson 8 – Reading Pie Charts	To read and interpret pie charts; to use knowledge of angles to interpret pie charts.
	Lesson 9 – Reading Line Graphs	To read line graphs; to interpret the information in line graphs that show distance and time.
	Lesson 10 – Reading Line Graphs	To read and interpret line graphs; to answer questions about the information in line graphs.

SUMMER TERM – TEXTBOOK 6B		
Number and Place Value: Negative Numbers		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 15 – Negative Numbers	Lesson 1 – Adding and Subtracting Negative Numbers	To add and subtract negative numbers using a number line.
	Lesson 2 – Using Negative Numbers	To create number stories using negative numbers.
	Chapter consolidation	To practise various concepts covered in the chapter.
	2 consolidation days	To be used if lessons take longer than expected or a topic needs to be revisited.
Week 4	SATs	

SUMMER TERM –TEXTBOOK 6B		
Measurement: Volume		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 11 – Volume	Lesson 1 – Finding the Volume of Cubes and Cuboids	To find the volume of cubes and cuboids using concrete materials.
	Lesson 2 – Finding the Volume of Cubes and Cuboids	To determine the formula for the volume of cubes and cuboids and apply it to calculate the volume of shapes.
	Lesson 3 – Finding the Volume of Cubes and Cuboids	To estimate the volume of objects and spaces; to calculate the volume of boxes using the formula for volume of cubes and cuboids.
	Lesson 4 – Finding the Volume of Cubes and Cuboids	To calculate the volume of boxes using the formula for volume of a cube; to expose common misconceptions in volume through a 3-box arrangement.
	Lesson 5 – Solving Problems Involving the Volume of Solids	To solve word problems involving the volume of cubes and cuboids; to apply the formula for the volume of a cube or cuboid.
	Chapter consolidation	To practise various concepts covered in the chapter.

SUMMER TERM –TEXTBOOK 6B		
Geometry – Properties and Shapes: Geometry		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 12 – Geometry Lessons 6–12	Lesson 6 – Naming Parts of a Circle	To name the parts of a circle; to calculate diameter and radius using parts of a circle.
	Lesson 7 – Solving Problems Involving Angles in a Circle	To solve problems involving angles in a circle.
	Lesson 8 – Drawing Quadrilaterals	To draw quadrilaterals with specific side lengths and parallel lines; to find the perimeter of shapes and name trapeziums and parallelograms.
	Lesson 9 – Drawing Triangles	To draw triangles using measurements and angles as the starting point; to use a protractor to draw triangles using angles.
	Lesson 10 – Drawing Triangles	To construct triangles using a protractor and ruler; to use ratio to determine the dimensions of a triangle.
	Lesson 11 – Drawing Nets of Three-Dimensional Shapes	To construct the nets of 3-D shapes by identifying the faces and the 2-D shapes that construct them.
	Lesson 12 – Drawing Nets of Three-Dimensional Shapes	To construct the nets of 3-D shapes by identifying the faces and the 2-D shapes that construct them.
	Chapter consolidation	To practise various concepts covered in the chapter.
	2 consolidation days	To be used if lessons take longer than expected or a topic needs to be revisited.

SUMMER TERM – TEXTBOOK 6B		
Geometry – Position and Direction: Position and Movement		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 13 – Position and Movement Lessons 6–10	Lesson 6 – Describing Reflections	To describe reflection using a mirror line and the terms 'object' and 'image'.
	Lesson 7 – Describing Movements	To reposition objects so they can be reflected in the x and y axis as the mirror line.
	Lesson 8 – Describing Movements	To describe the movement of objects using the terms 'translation' and 'reflection'.
	Lesson 9 – Using Algebra to Describe Position	To use algebra to describe the positions of coordinates in relationship to one another.
	Lesson 10 – Using Algebra to Describe Movements	To represent translation and reflection using algebraic notation.
	Chapter consolidation	To practise various concepts covered in the chapter.

SUMMER TERM – TEXTBOOK 6B		
Statistics: Graphs and Averages		
Maths—No Problem! Book Reference	**Lesson Name**	**Lesson Objective**
Chapter 14 – Graphs and Averages Lessons 11–12	Lesson 11 – Converting Miles into Kilometres	To convert miles into kilometres and kilometres into miles.
	Lesson 12 – Reading Line Graphs	To read and interpret line graphs.
	Chapter consolidation	To practice various concepts covered in the chapter.
	2 consolidation days	To be used if lessons take longer than expected or a topic needs to be revisited.
Week 10	REVISIT TOPICS	
Week 11	REVISION AND END-OF-YEAR (B) TESTS	
Week 12	REVISIT TOPICS	

Maths Progression

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number	**Place Value**	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 different multiples including ones, twos, fives and tens from a given a number, identify one more and one less Identify and represent numbers using concrete 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 1 to 20 in numerals and words	Count in steps of 2, 3, and 5 from 0, and count in tens from any number, forward or backward Recognise the value of each digit in a two-digit number (tens, ones) identify, represent and estimate numbers using different representation, 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	Count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more than a given number recognise the place value of each digit in a three-digit number (hundreds, tens, ones) Compare and order numbers up to 1000 identify, represent and estimate numbers using different representations Read and write numbers to at least 1000 in numerals and in words solve number problems and practical problems involving these ideas	Count in multiples of 6, 7, 9, 25 and 100 find 1000 more or less than a given number Count backwards through zero to include negative numbers recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones) Order and compare numbers beyond 1000 Identify, represent and estimate numbers using different representations round any number to the nearest 10, 100 or 1000 Solve number and practical problems that involve all of the above and with increasingly large positive numbers Read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value	Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 solve number problems and practical problems that involve all of the above read Roman numerals to 1000 (M) and recognise years written in Roman numerals	Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit Round any whole number to a required degree of accuracy Use negative numbers in context, and calculate intervals across zero Solve number problems and practical problems that involve all of the above
	Addition and subtraction	Read, write and interpret mathematical statements involving addition (+), subtraction (-), and equals (=) signs Represent and use	Solve simple one-step problems with addition and subtraction: Using concrete objects and pictorial representations,	add and subtract numbers mentally, including: a three-digit number and ones	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where	Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

	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	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 missing number problems	a three-digit number and tens a three-digit number and hundreds add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction estimate the answer to a calculation and use inverse operations to check answers solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	appropriate Estimate and use inverse operations to check answers to a calculation Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	Add and subtract numbers mentally with increasingly large numbers Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	
Multiplication	Solve one step problems	Recall and use	Recall and use	Recall multiplication and	Identify multiples and	Multiply multi-digit

and division	involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher	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 (x), division (÷) and equals (=) signs Show that multiplications 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	multiplication and division facts for the 3, 4 and 8 multiplication tables Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including two-digit numbers times one-digit numbers, using mental and progressing to formal written methods Solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects	division facts for multiplication tables up to 12 x 12 Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying together three numbers Recognise and use factor pairs and commutatively in mental calculations Multiply two-digit and three-digit numbers by a one-digit number using formal written layout Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as which n objects are connected to m objects	factors, including finding all factor pairs of a number, and common factors of two numbers. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers Establish whether a number up to 100 is prime and recall prime numbers up to 19 Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers Multiply and divide numbers mentally drawing upon known facts Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 Recognise and use	numbers up to 4 digits by a two-digit whole number using the efficient written method of long multiplication Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to context Perform mental calculations, including with mixed operations and large numbers Identify common factors, common multiples and prime numbers Using their knowledge of the order of operations to carry out calculations involving the four operations Solve problems involving addition, subtraction,

					square numbers and cube numbers, and the notations, (^{2}) (^{3}) Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	multiplication and division Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy
Fractions (Including decimals / percentages)	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	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 e.g. 1/2 of 6 = 3 and recognise the equivalent of two quarters and one half	Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 Recognise, find and write fractions of a discrete set of objects; unit fractions and non-unit fractions with small denominators Recognise and use fractions as numbers; unit fractions and non-	Recognise and show, using diagrams, families of common equivalent fractions Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten Solve problems involving increasingly harder fractions to calculate quantities, including non-unit fractions where the answer is a whole	Compare and order fractions whose denominators are all multiples of the same number Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths Recognise mixed numbers and improper fractions and convert from one to the other and write mathematical	use common factors to simplify fractions; use common multiples to express fractions in the same denomination Compare and order fractions including fractions >1 Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions Multiply simple pairs of

			unit fractions with small denominators Recognise and show, using diagrams, equivalent fractions with small denominators Add and subtract fractions with the same denominator within one whole (e.g. 5/7 + 1/7 = 6/7) Compare and order unit fractions with the same denominators Solve problems that involve all of the above	number Add and subtract fractions with the same denominator Recognise and write decimal equivalents of any number of tenths or hundredths Recognise and write decimal equivalents to 1/4 ; 1/2, 3/4 find the effect of dividing a one or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths Round decimals with one decimal place to the nearest whole number Compare numbers with the same number of decimal places up to two decimal places Solve simple measures and money problems involving fractions and decimals to two decimal places	statements >1 as a mixed number (e.g. 2/5 + 4/5 = 6/5 = 1 1/5) Add and subtract fractions with the same denominator and denominators that are multiples of the same number Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams Read and write decimal numbers as fractions (e.g. 0.71 = 71/100) Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Round decimals with two decimal places to the nearest whole number and to one decimal place Read, write, order and compare numbers with up to 3 decimal places Solve problems involving numbers up to 3 decimal places Recognise the per cent symbol (%) and understand that per cent relates to 'number of	proper fractions, writing the answer in its simplest form (e.g. ¼ x ½ = 1/8) Divide proper fractions by whole numbers (e.g. 1/3 ÷ 2 = 1/6) Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8) Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places Multiply one-digit numbers with up to two decimal places by whole numbers Use written division methods in cases where the answer has up to two decimal places Solve problems which require answers to be rounded to specified degrees of accuracy Recall and use equivalences between simple fractions, decimals and percentages, including in

						parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/+, 2/+, 4/+ and those fractions with a denominator of a multiple of 10 or 25	different contexts
Measures		Compare, describe and solve practical problems for: lengths and heights (e.g. long/short, longer/shorter, tall/short, double/half) mass or weight (e.g. heavy/light, heavier than, lighter than) capacity/volume (e.g. full/empty, more than, less than, half, half full, quarter) time e.g. quicker, slower, earlier, later) Measure and begin to record lengths and heights, mass/weight, capacity and volume and time (hours, minutes, seconds) Recognise and know the value of different	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 vessel 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	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) Measure the perimeter of simple 2-D shapes Add and subtract amounts of money giving change, using both £ and p in practical contexts Tell and write the time from an analogue clock, including using Roman numerals from 1 to X11, and 12 hour and 24-hour clocks Estimate and read time to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as am/pm, morning, afternoon, noon and	Convert between different units of measure (e.g. kilometre to metre; hour to minute) Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres Find the area of rectilinear shapes by counting Estimate, compare and calculate different measures, including money in pounds and pence Read, write and convert time between analogue and digital 12 and 24-hour clocks Solve problems involving converting from hours to	Convert between different units of measure(e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres Calculate and compare the area of rectangles (including squares) and including using standard units, square centimetres (cm^2) and	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to three decimal places Convert between miles and kilometres Recognise that shapes with the same areas can have different perimeters and vice versa

		denominations of coins and notes Sequence events in chronological order using language (e.g. before, after, next, first, today, tomorrow, morning, afternoon and evening) Recognise and use the 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	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 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	midnight Know the number of seconds in a minute and the number of days in each month, year and leap year Compare durations of events, for example to calculate the time taken by particular events or tasks.	minutes; minutes to seconds; years to months; weeks to days	square metres (m^2) and estimate the area of irregular shapes Estimate volume (e.g. using 1 cm^3 blocks to build cuboids (including cubes)) and capacity (e.g. using water) Solve problems involving converting between units of time Use all four operations to solve problems involving measure (for example, length, mass, volume, money) using decimal notation, including scaling	Recognise when it is possible to use formulae for area and volume of shapes Calculate the area of parallelograms and triangles Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3) and extending to other units (e.g. mm^3 and km^3)
Geometry	**(properties of shape)**	Recognise and name common 2-D and 3-D shapes, including: 2-D shapes (e.g. rectangles (including squares), circles and triangles), 3-D shapes (e.g. cuboids (including cubes), pyramids and spheres)	Identify and describe the properties of 2-D shapes, including the number of sides and 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	Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations; and describe them with increasing accuracy Recognise angles as a property of shape and associate angles with turning Identify right angles, recognise that two right angles make a half-turn, three make three-quarters of a turn and four a complete turn; identify whether angles	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes Identify acute and obtuse angles and compare and order angels up to two right angles by size Identify lines of symmetry in 2-D shapes presented in different orientations Complete a simple symmetric figure with respect to a specific line	Identify 3-D shapes, including cubes and cuboids, from 2-D representations Know angles are measured in degrees; estimate and compare acute, obtuse and reflex angles Draw given angles, measuring them in degrees (°) Identify angles at a point and one whole turn (total 360°), angles at a point on a straight line and ½ a turn (total	Draw 2D shapes using given dimensions and angles Recognise, describe and build simple 3-D shapes, including making nets Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons Illustrate and name parts of circles, including radius, diameter and circumference and know

			objects	are greater than or less than a right angle Identify horizontal and vertical lines and pairs of perpendicular and parallel lines	of symmetry	180°), other multiples of 90˚ Use the properties of a rectangle to deduce related facts and find missing lengths and angles Distinguish between regular and irregular polygons based on reasoning about equal sides and angles	that the diameter is twice the radius Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
	(Position and direction)	Describe position, directions and movements, including half, quarter and three-quarter turns	Order and arrange combinations of mathematical objects in patterns Use mathematical vocabulary to describe position, direction and movement, including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise/anti-clockwise)		Describe positions on a 2-D grid as coordinates in the first quadrant Describe movement between positions as translations of a given unit to the left/right and up/down Plot specified points and draw sides to complete a given polygon	Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed	Describe positions on the full coordinate grid (all four quadrants) Draw and translate simple shapes on the coordinate plane, and reflect them in the axes
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	Interpret and present data using bar charts, pictograms and tables Solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs Solve comparison, sum and difference problems using information presented in bar charts,	Solve comparison, sum and difference problems using information presented in a line graph Complete, read and interpret information in tables, including timetables	Interpret and construct pie charts and line graphs and use these to solve problems Calculate and interpret the mean as an average

			quantity Ask and answer questions about totalling and compare categorical data		pictograms, tables and other graphs	
Ratio						Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division. Solve problems involving the calculation of percentages (e.g of measures, and such as 15% of 360) and the use of percentages for comparison Solve problems involving similar shapes where the scale factor is known or can be found Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
Algebra						Use simple formulae Generate and describe linear number sequences Express missing number problems algebraically Find pairs of numbers that satisfy an equation with two unknowns Enumerate possibilities of combinations of two variables

Maths Impact

The curriculum at Diamond Hall Junior Academy is well planned and thought-through to enable a wide range of engagement, so to develop knowledge and skills cross the curriculum, not only within class but in providing out of class opportunities to enable children to develop themselves as learners and encourage each child to be as independent as possible. Pupil voice feedback, specific whole staff planning time and moderation during staff meetings allows the staff to regularly review and assess the impact that the curriculum is having.

Regular and robust monitoring and scrutiny by SLT and Subject leaders provide first-hand evidence of how pupils are doing and ensures that high expectation and demanding outcomes are maintained. In-school and cross-school moderation is quality assured.

We are working with NELT primary schools and Hermitage Academy, to develop, monitor and quality assure our curriculum quality and provision.

The impact of out curriculum is measured through a range of different strategies:

- Data which is produced from summative tests as well as on-going teacher assessments
- Work scrutiny
- Learning walks
- Pupil voice
- Lesson observations

Monitoring is conducted by members of the senior leadership team and subject leaders. Governors are invited to work alongside us with our monitoring.