Maths Objectives Year 3

Units	Objectives covered
2A Unit 1 Numbers to 1000 Counting	Recognise concrete representations of numbers (100 to 100), read and write their corresponding numbers and number words Recognise, read and write numbers (100 to 10000 and their corresponding number words (one hundred to one thousand) Count within 1000 by making hundreds and tens first Use the strategies of counting in ones, tens and hundreds to count to 1000 Recognise and interpret sentences associated with tens and ones
2A Unit 1 Numbers to 1000 Place Value	Represent numbers as hundreds, tens and ones in a place value chart Show concrete representations in hundreds, tens and ones given a number up to 1000 Read and write numbers given a set of concrete representations and vice versa, with or without a place value chart
2A Unit 1 Numbers to 1000 Comparing Numbers within 1000	Use the 'comparing the tens and then the ones' strategy t compare numbers up to 1000 Compare numbers up to 1000 using the terms 'greater than' and 'smaller than' with and without concrete representations Compare numbers up to 1000 using the terms 'greatest' and 'smallest' with and without concrete representations Compare numbers up to 1000 using the terms 'more than' and 'less than' with and without concrete representations
2A Unit 1 Numbers to 1000 Order and Pattern	Compare two or more 3-digit numbers Identify the 'greatest number' and the 'smallest number' Compare a number with the previous number using the terms '1 more than', '1 less than', '10 more than', '10 less than'. '100 more than', and '100 less than'. Arrange numbers up to 1000 in an ascending or a descending order Recognise, read and write missing numbers in a given number sequence
2A Unit 2 Addition and Subtraction within 1000 Simple Addition within 1000	use place value charts with concrete representations to show addition of a 1-digit, 2-digit or 3-digit number to a 3-digit number without regrouping
2A Unit 2 Addition and Subtraction within 1000 Simple Addition within 1000	add a 1-digit, 2-digit or 3-digit number to a 3-digit number without regrouping using both horizontal and column additions solve simple addition word problems involving addition of a 1-digit, 2-digit or 3-digit number to a 3-digit number without regrouping

2A Unit 2 Addition and Subtraction Simple Subtraction within 1000	use place value charts and concrete representations to show subtraction of a 1-digit, 2-digit or 3-digit number from a 3-digit number subtract a 1-digit, 2-digit or 3-digit number from a 3-digit number without regrouping using both horizontal and column subtraction solve simple subtraction word problems involving subtraction of a 1-digit, 2-digit or 3-digit number from a 3-digit number without regrouping
2A Unit 2 Addition and Subtraction Addition with Regrouping the Ones	use place value charts and concrete representations to show addition of two 3-digit numbers with regrouping the ones add a 3-digit number to another 3-digit number with regrouping the ones in both horizontal and column additions solve simple addition word problems involving addition of a 3-digit number to another 3-digit number with regrouping the ones
2A Unit 2 Addition and Subtraction Addition with Regrouping the Tens	use place value charts and concrete representations to show addition of a 2-digit number to a 3-digit number with regrouping the tens add a 3-digit number to another 3-digit number with regrouping the tens in both horizontal and column additions solve simple addition word problems involving addition of a 3-digit number to another 3-digit number with regrouping the tens
2A Unit 2 Addition and Subtraction Addition with Regrouping the Tens and Ones	use place value charts and concrete representations to show regrouping from ones to tens and from tens to hundreds in addition add a 3-digit number to another 3-digit number with regrouping in ones and tens using both horizontal and column additions solve simple addition word problems involving addition of a 3-digit number to another 3-digit number with regrouping the ones and tens
2A Unit 2 Addition and Subtraction Subtraction with Regrouping the Tens and Ones	use place value charts and concrete representations to show regrouping from tens to ones in subtraction subtract a 3-digit number from another 3-digit number with regrouping the tens to ones using both horizontal and column subtractions solve simple subtraction word problems involving subtraction of a 3-digit number from another 3-digit number with regrouping from tens to ones
2A Unit 2 Addition and Subtraction Subtraction with Regrouping the Hundreds and Tens	use place value charts and concrete representations to show regrouping from hundreds to tens in subtraction subtract a 3-digit number from another 3-digit number with regrouping from hundreds to tens using both horizontal and column subtractions solve simple subtraction word problems involving subtraction of a 3-digit number from another 3-digit number with regrouping from hundreds to tens
2A Unit 2 Addition and Subtraction - Subtraction with Regrouping the Hundreds, Tens and Ones	use place value charts and concrete representations to show regrouping from hundreds to tens and from tens to ones in subtraction subtract a 3-digit number from another 3-digit number with regrouping from hundreds to tens and from tens to ones using both horizontal and column subtractions solve simple subtraction word problems involving subtraction of a 3-digit number from another 3-digit number with regrouping from hundreds to tens and from tens to ones
2A Unit 2 Addition	use place value charts and concrete representations to show regrouping from

and Subtraction Subtraction with Numbers that have Zeros	hundreds to tens and then from tens to ones in subtraction when the minuend is in hundreds subtract a 2-digit or 3-digit number from another 3-digit number in hundreds with regrouping from hundreds to tens and then from tens to ones using both horizontal and column subtraction solve simple subtraction word problems involving subtraction of a 2-digit or 3-digit number from a 3-digit number in hundreds with regrouping from hundreds to tens and then from tens to ones
2A Unit 2 Addition and Subtraction Thinking Caps	Pupils will be able to use the deductive approach and work back to solve the problem.
2A Unit 3 Using Models: Addition and Subtraction	see the link between unit cube representation in 2D with bar diagrams in model drawings interpret and represent the 'part-whole' concept in addition using models either with paper strips or by drawing bars interpret and represent the 'part-whole' concept in subtraction using models either with paper strips or by drawing bars
2A Unit 3 Using Models: Addition and Subtraction Simple Word Problems 2	interpret and represent the 'adding on' concept in addition using models either with paper strips or by drawing bars interpret and represent the 'taking away' concept in subtraction using models either with paper strips or by drawing bars
2A Unit 3 Using Models: Addition and Subtraction Simple Word Problems 3	Pupils will be able to interpret and represent the 'comparing' concept in addition or subtraction using models either with paper strips or by drawing bars.
2A Unit 3 Using Models: Addition and Subtraction Two-Step Word Problems	Pupils will be able to interpret and represent 2-step problems in addition and subtraction using models either with paper strips or by drawing bars.
2A Unit 4 Multiplication and Division	interpret the concept of multiplication as the number of groups by the number of items and as repeated addition interpret the concept of multiplication as multiplying a set of items by number of times calculate multiplication using repeated addition
2A Unit 4 Multiplication and Division How to Divide	interpret the concept of division as sharing a number of items equally between a number of groups interpret the concept of division as dividing a set of items into groups given a fixed set of items in each group calculate division by relating to multiplication or repeated addition
2A Unit 5 Multiplication by 2 and 3	recall the 'multiplication' concept in groups of two use the 'skip-count in twos' strategy to find the two times table facts write the multiplication sentence from a word problem commit the two times table facts to memory

2A Unit 5 Multiplication by 2 and 3 Using dot Paper	recall the 'multiplication' concept as multiplying relate the multiples of 2 to dot paper that has two dots on each row use dot paper as a strategy to find the two times table facts use the 'commutative property' with dot paper as a strategy to find the two times table facts use the 'connecting fact' strategy starting from 5 × 2 to find a more difficult fact use the 'connecting fact' strategy starting from 10 × 2 to find a more difficult fact
2A Unit 5 Multiplication by 2 and 3 X by 3 skip-counting	recall the 'multiplication' concept in groups of three use the 'skip-count in threes' strategy to find the three times table facts write the multiplication sentence from a word problem commit the three times table facts to memory
2A Unit 5 Multiplication by 2 and 3 X by 3 Using Dot Paper	recall the 'multiplication' concept as multiplying relate the multiples of 3 with dot paper that has three dots on each row use dot paper as a strategy to find the three times table facts use the 'commutative property' with dot paper as a strategy to find the three times table facts use the 'connecting fact' strategy starting from 5 × 3 to find a more difficult fact use the 'connecting fact' strategy starting from 10 × 3 to find a more difficult fact
2A Unit 5 Multiplication by 2 and 3 Division	find the number of items in each equal group given a total number of items and number of groups (2 or 3 equal groups) find the number of groups given the total number of items and the number of items in each group recall multiplication facts to find division facts involving 3 as a dividend write division number statements solve simple division word problems involving finding the number of items or number of groups
2A Unit 6 Multiplication by 4, 5 and 10: x 4 skip-counting	recall the 'multiplication' concept in groups of 4 or multiplying by 4 use the 'skip-count in fours' strategy to find the four times table facts write the multiplication sentence from a word problem commit the four times table facts to memory
2A Unit 6 Multiplication by 4, 5 and 10: x 4 using dot paper	relate the multiples of 4 to dot paper that has four dots on each row use dot paper as a strategy to find the four times table facts use the 'commutative property' with dot paper as a strategy to find the four times table facts use the 'connecting fact' strategy starting from 5 × 4 to find a more difficult fact use the 'connecting fact' strategy starting from 10 × 4 to find a more difficult fact
2A Unit 6 Multiplication by 4, 5 and 10: x 5: Skip Counting	recall the 'multiplication' concept in groups of 5 or multiplying by 5 use the 'skip-count in fives' strategy to find the five times table facts write the multiplication sentence from a word problem commit the five times table facts to memory
2A Unit 6 Multiplication by 4, 5 and 10: x 5:Using Dot Paper	relate the multiples of 5 to dot paper that has five dots on each row use dot paper as a strategy to find the five times table facts use the 'commutative property' with dot paper as a strategy to find the five times table facts use the 'connecting fact' strategy starting from 5 × 5 to find a more difficult fact use the 'connecting fact' strategy starting from 10 × 5 to find a more difficult fact

2A Unit 6 Multiplication by 4, 5 and 10: x 10: Skip-Counting and Using Dot Paper	recall the 'multiplication' concept in groups of 10 or multiplying 10 use the 'skip-count in tens' strategy to find the ten times table facts write the multiplication sentence from a word problem use dot paper as a strategy to find the ten times table facts use the 'commutative property' with dot paper as a strategy to find the ten times table facts use the 'short-cut' strategy starting from a simple fact to find a more complicated fact with '0' commit the ten times table facts to memory
2A Unit 6 Multiplication by 4, 5 and 10: Division	recall division concepts in finding the number of groups or the number of items in each group find division facts by recalling multiplication facts relate division and multiplication facts write division facts from given multiplication facts
2A Unit 7 Using Models: Multiplication and Division: X	Pupils will be able to interpret and represent the 'group and item' concept in multiplication using models either with paper strips or drawing bars.
2A Unit 7 Using Models: Multiplication and Division: /	Pupils will be able to interpret and represent the 'group and item' concept in division using models either with paper strips or drawing bars to find the number of items or groups
2A Unit 8 Length: Measuring in Metres	recognise the unit of measurement for length as metre (m) estimate and measure 1 metre (1 m) lengths name objects that are more than 1 m long, and objects that are less than 1 m long estimate and measure the lengths of objects in metres
2A Unit 8 Length: Comparing Length in Metres	compare the lengths of objects by measuring their lengths in metres find the difference (how much more or less) in the lengths of objects by subtracting the lengths
2A Unit 8 Length: Measuring in cm	recognise the unit of measurement centimetres (cm) and that it is used for measuring shorter lengths as compared to the metre measure lengths of objects in centimetres (cm) using a ruler use a string to measure the lengths of curves draw lines given their lengths in centimetres using a ruler
2A Unit 8 Length: Comparing Length in cm	measure lengths of objects in cm using a ruler compare the lengths of objects in cm and identify the longer and the shorter objects Find the length of an object when the object is not placed at the '0' mark find the difference (how much more or less) in the lengths of objects by subtracting the lengths
2A Unit 8 Length: Addition and Subtraction of Length	solve one- and two-step word problems by relating them to addition and subtraction concepts such as 'part-whole', 'adding on', 'taking away' and 'comparing' draw models to help them solve word problems
2A Unit 8 Length: Multiplication and	solve one- and two-step word problems by relating them to multiplication and division concepts such as 'group and item' and 'multiplying'

Division of Length	draw models to help them solve word problems
2A Unit 9 Mass: Measuring in Kg	use the unit kilogram (kg) for measuring mass and have a sense of how heavy 1 kg is tell how heavy 1 kg is by weighing an object, e.g. a bag of flour read a scale which shows '1 kg', 'less than 1 kg' or 'more than 1 kg' estimate the mass of an object and then check by measuring its mass using a weighing scale find the mass of an object in kg using the balance with 1 kg weights compare the masses of objects and tell which is heavier or lighter solve problems by applying the 'balancing' concept
2A Unit 9 Mass: Comparing Masses in Kg	read a scale to determine the mass of objects Tell which object or person is heavier and how much heavier by weighing the objects separately read a scale where the indicator does not point exactly to the numbers on the scale use a kitchen scale to determine the order of the masses of two or three items
2A Unit 9 Mass: Measuring in Grams	use the unit gram (g) for measuring mass and have a sense of how heavy 1 g is tell how heavy 1 g is by weighing an item, e.g. a paper clip read a scale which shows masses less than 500 g find the mass of an object in grams using the balance with 1 g masses determine the correct weighing scale for different items
2A Unit 9 Mass: Comparing Masses in grams	measure and compare masses in g identify which object is heavier/lighter/heaviest/lightest state how much heavier an object is by subtracting estimate the mass of an object and then verify it by using a weighing scale solve problems by comparing the masses of combinations of items
2A Unit 9 Mass: Addition and Subtraction of Mass	find the total mass of two or more items (in kg) by adding the masses find the difference in the masses by subtracting solve problems and determine the operations used based on the addition and subtraction concepts use models to help them solve problems solve two-step word problems involving addition and subtraction of masses using the 'part-whole', 'comparison', 'adding on' and 'taking away' models
2A Unit 9 Mass: Mulitiplication and Division of Mass	solve problems involving multiplication concepts use models to help them solve problems solve one-step word problems involving multiplication solve problems involving the division concept read a word problem and decide if it is a multiplication or division calculation
2B Unit 14 Volume Getting to know Volume	understand and explain that the volume of a liquid is the amount of that liquid in a container understand that the volume of water is conserved no matter which container is used to contain the water compare the volumes of liquids in identical containers by comparing the levels of liquid in the containers compare levels of liquids in identical containers to determine which container has the most or least liquid

	compare the volumes of water in identical containers and arrange them in ascending or descending order compare the amounts of water in identical or non-identical containers by counting the number of non-standard units (glasses) that fill each container
2B Unit 14 Volume Measuring in Litres	state that the unit of measurement for volume is the litre (ℓ) know how much 1 litre of liquid is and give examples of containers that can contain 1 litre of liquid compare a measuring cylinder with 1 litre of liquid with another cylinder with more/less liquid estimate the number of litres of water a container can hold and then check by measuring with 1ℓ containers use a scale on a container to find the volume of water it contains in litres • Comparing and visualising volumes
2B Unit 14 Volume Addition and Subtraction of Volumes	solve problems by relating the problems to addition and subtraction concepts such as 'part-whole', 'adding on', 'taking away' and 'comparing' draw models to help solve one-step word problems solve two-step word problems involving the use of addition and subtraction concepts draw models to help solve two-step word problems
2B Unit 14 Volume Multiplication and Division of Volumes	solve problems by relating them to multiplication and division concepts such as 'group and item' and 'multiplying' draw 'part-whole' models to help solve one-step word problems
2B Unit 15 Graphs reading Picture Graphs	read and interpret picture graphs with scales in 1, 2, 3, 4, 5 or 10 ind the scale given the total number of items for a category and the number of units represented by each symbol compare the differences between two or more types of items ind the sum of the number of items of two categories given in the picture graph find the number of symbols to be drawn in the picture graph with sufficient information given
2B Unit 15 Graphs Making Picture Graphs	make picture graphs with scales in 1, 2, 3, 4, 5 or 10 record items and make tables from information found in picture graphs draw picture graphs with scales from the table, using appropriate scales for each picture graph interpret information from picture graphs
2B Unit 15 Graphs More Graphs	interpret graphs related to scale, make comparisons and find sums and differences solve problems using picture graphs involving two variables
2B Unit 16 Lines and Surfaces: Straight Lines and Curves	identify and differentiate straight lines and curves use a ruler and pencil to draw straight lines use a pencil to draw curves use 'finger-tracing' to feel and tell whether a line is a curve or a straight line Identify straight lines and curves in pictures and 3D shapes draw pictures with only straight lines, pictures with only curves or pictures with straight lines and curves
2B Unit 16 Lines and Surfaces: Lets	Pupils will be able to create pictures with straight lines and curves.

Explore	
2B Unit 16 Lines and Surfaces: Flat surfaces	differentiate between a flat surface and a curved surface by moving their hand over the surfaces identify 3D objects that have flat surfaces count the number of flat surfaces of a given set of geometrical shapes find objects that have flat surfaces
2B Unit 17 Shapes and Patterns: 2D	recognise a semicircle as half a circle and a quarter circle as one quarter of a circle recognise things with semicircular shapes and things with quarter circle shapes recognise semicircles and quarter circles in composite shapes make pictures using shapes including semicircles and quarter circles make pictures from cut-out shapes draw shapes copy shapes onto square dotty paper copy shapes onto squared paper
2B Unit 17 Shapes and Patterns: 3D	recognise, identify and name the 3D shapes: cube, cuboid, cone and cylinder identify and name the 3D shapes used in making a given model make models using the 3D shapes
2B Unit 17 Shapes and Patterns Making Patterns	identify patterns using the attributes: size, shape, colour and orientation identify missing shapes from patterns explain a pattern and continue the pattern make simple repeating patterns using 1 or 2 attributes and explain how they made the pattern make new patterns with the given basic shapes
2B Unit 10 Mental Calculations: Mental Addition	use number bonds for 10s to mentally add a 1-digit number to a 2-digit number within 100 without regrouping use number bonds to mentally add a 1-digit number to a 3-digit number with or without regrouping the ones use number bonds to mentally add a 3-digit number and tens with or without regrouping in tens use number bonds to mentally add a 3-digit number and hundreds without regrouping in hundreds
2B Unit 10 Mental Calculations: Mental Subtraction	use number bonds to mentally subtract a 1-digit number from a 2-digit number within 100 with or without regrouping use number bonds to mentally subtract a 1-digit number from a 3-digit number within 1000 with or without regrouping the tens into ones use number bonds to mentally subtract tens from a 3-digit number within 1000 with or without regrouping the hundreds into tens use number bonds to mentally subtract hundreds from a 3-digit number without regrouping
2B Unit 11 Money: Counting pounds and pence	recognise different coins and notes and know the value of each state the total value of a set of notes and coins write amounts of money in numbers, given the amount written in words
2B Unit 11 Money: Counting pounds and pence Let's Explore	show different ways of making up a value with different notes and coins show different ways of making up a value in pounds only, pence only or in pounds and pence

2B Unit 11 Money: Changing pounds and pence	convert pence to pounds convert pence to pounds and pence convert pounds to pence convert pounds and pence to pence
2B Unit 11 Money: Comparing amounts of money	write the amount of money in a place value chart in pounds and pence use a strategy to compare the amounts of money by first comparing the pounds followed by the pence state the greater/greatest or smaller/smallest amount of money using the 'comparing pounds and pence' strategy
2B Unit 11 Money: Word Problems	solve one-step or two-step word problems in addition or subtraction involving 'part-whole', 'adding on', 'taking away' or 'comparing' concepts; in pounds only or in pence only draw models to solve word problems in pounds only or in pence only solve one-step word problems in multiplication and division involving 'group and item' and 'multiplying' concepts draw models to solve word problems
2B Unit 12 Fractions	use shapes to represent one whole and fractions with denominators of up to 12 write fractions with denominators of up to 12 from given shapes with equal divisions identify whether a shape has been cut into equal fractional parts read and write fractions in words identify parts and whole from a given situation write fractions to represent the parts of a whole from a given situation
2B Unit 12 Fractions More Fractions	represent fractions using model drawings represent a situation in terms of fractions and then model drawings represent fractions using drawings of shapes
2B Unit 12 Fractions Comparing and Ordering Fractions	compare and order two or more fractions with the same denominator using rectangular strips or model drawings of the same size compare and order two or more fractions with different denominators using rectangular strips or model drawings of the same size order two or more fractions with or without the use of rectangular strips of the same size or model drawings
2B Unit 12 Fractions adding and subtracting like fractions	add two or three fractions with the same denominator taken from a whole subtract a fraction from another fraction with the same denominator taken from a whole subtract two fractions with the same denominator from the same whole conceptualise addition and subtraction of fractions by representing the subtraction with model drawings
2B Unit 12 Fractions Solving word problems	recall and apply 'part-whole' and 'adding on' concepts in addition of two fractions using model drawing to solve word problems recall and apply 'part-whole' and 'taking away' concepts in subtraction of fractions using model drawing to solve word problems
2B Unit 13 Time: The minute hand	recite the 5 times table and relate it to the clock's minute markings recall and use the conversion: 60 minutes = 1 h tell the time as __ mins after __ o'clock

	read and write the time in minutes to intervals of 5 minutes name the numeral or draw the minute hand given the time in hours and minutes
2B Unit 13 Time: Reading and Writing the Time	tell the time in hours and minutes by looking at the positions of the hour and minute hands write the time in hours and minutes in numerals draw the position of the hour hand or the minute hand given the time in numerals make up stories about what they were doing at the times shown
2B Unit 13 Time: Learning a.m. and p.m.	write times in a.m. or p.m. to differentiate between morning, afternoon and evening choose a.m. or p.m. based on clues such as ‘in the morning’, ‘afternoon’, ‘evening’ or ‘night’ arrange a sequence of events in order, beginning with the earliest
2B Unit 13 Time: Hours and Minutes	find the duration in terms of 1 hour or half an hour given start and end times find the start time given the end time and duration of 1 hour or half an hour find the end time given the start time and duration of 1 hour or half an hour