

Nursery

	Autumn					
Торіс	Sorting	Numerals	Pattern	T		
Enquiry Question	How many ways can we sort objects?	Where do we see numbers in the environment?	Do we find repeating patterns in nature?			
Key Knowledge and skills	 To match objects To sort by colour To sort by shape To sort by size To recognise the sorting rule 	 To subitise 1 To count 1 from a group To recognise 1 as a quantity To subitise 2 To recognise 2 as a quantity To count 2 from a group 	 To identify AB patterns To extend AB patterns To identify ABC patterns To extend ABC patterns 			
End Point			the small steps of key knowledge and skills			

Торіс	Numerals	Consolidation	Shape	Height and Length	Mass
Enquiry Question	Where do we see numbers in the environment?		How do numbers link with shapes?	Can the height of an object have the same length?	How can we change the mass of an object?
Key Knowledge and skills	 To subitise 3 objects To compare number 3 to 1 and 2 To 1:1 count correspondence To recognise 3 To subitise 4 objects To represent 4 To count 4 objects To represent 5 To count 5 objects To count 1:1 correspondence to 5 To count 1:1 correspondence to 5 To investigate the composition of 5 To recognise 6 To place 6 objects on a tens frame 	 To consolidate numbers 1-5 To count To subitise To consolidate the number 6 To compare length and height To compare amounts To compare weights 	 To count sides on triangles To count sides on rectangles and squares To count sides on a pentagon 	 To describe length and height To compare length and height 	 To use vocabulary to describe weight To compare weight To use vocabulary to describe amounts To compare amounts

			Summer		
Торіс	Sequencing	More and Fewer	Shape	Consolidation	Numerals
Enquiry Question	How does sequencing relate to everyday life?	How do numbers link with more objects or fewer objects?	What shapes can we see in the environment?		Where do we see numbers in the environment?
Key Knowledge and skills	 To talk about a simple routine To order a simple routine Use vocabulary when sequencing 	To compare amounts To use the language of more and fewer	 To recognise 2D shapes To compare 2D shapes To recognise 3D shapes To compare 3D shapes 	 Consolidate more/less in relation to quantity Composition of 1 – 5 Numbers to 5 2D shape 3D shape Counting Weight Positional language 	 To understand what comes next in a number line To understand what comes before in a number line
End Point		To u	nderstand and be able to apply the small steps of key knowle	edge and skills	1

Consolidation

- To consolidate numbers 1 & 2
- To sort
- To count objects
- To subitise
- To make repeating patterns



Reception

Maths

		Autumn		
Торіс	Counting, cardinality and ordinality	Subitising	Comparison	
Enquiry Question	How many ways can we count objects?	How many ways can we represent a number?	How do we know when a number has a greater or smaller value?	
Key Knowledge and skills	 To hear and join in with the counting sequence to 5, including using songs and rhymes To see that counting is useful because it tells us 'how many' To see that the last number in the count tells us 'how many altogether' (cardinality) To practise counting each object, action or sound once and only once To record the results of their count To practise counting each object, action or sound once and only once To hear and join in with the counting sequence to 5 To tag each object with 1 number word (1:1 correspondence) To see that they have 5 fingers on one hand To say and make numbers to 5 on their fingers To make collections of 5 in different ways To use counters to represent 5 objects To use a die frame to represent 5 To count 5 and 5 to make 10 altogether To hear and join in with the counting sequence to 10, including using songs and rhymes To use their fingers to represent quantities to 5 and to begin to represent quantities to 10 To match different representations of quantities to 5 with amounts shown on their fingers To begin to recognise numerals to 5 To develop their understanding of equal amounts To represent quantities in more abstract ways, such as by clapping or jumping To begin to understand that when a set of objects is rearranged, its quantity remains the same 	 To subitise 1 and 2 To subitise within 3 To make and describe spatial patterns with 3 dots To represent quantities on their fingers in different ways To identify sub-groups of 1, 2 and 3 within larger arrangements To subitise arrangements of 2 and 3 To practise making 2s and 3s with their fingers To identify when a small collection is rearranged, or the quantity changed To show small quantities on their fingers To use positional language to describe patterns of 4 To make patterns showing 4 	 To represent a given number on their fingers without looking To compare 2 sets of objects and say which is 'more than' To compare 2 sets of objects and say which is 'more than' or 'fewer than' To practise subitising amounts to 4 To revisit 'more than' or 'fewer than' by looking To compare groups of up to 3 objects by matching them 1:1 To say when they have an equal number To say when there is an equal number, too many or not enough To build towers with an equal number of squares To match the squares in the towers 1:1 	
End Point		To understand and be able to apply the	he small steps of key knowledge and skills	

		Spring	
Торіс	Counting, cardinality and ordinality	Subitising	Comparison
Enquiry Question	How many ways can we count objects?	How many ways can we represent a number?	How do we know when a number has a greater or smaller value?
Key Knowledge and skills	 To recognise numerals 1–5 To order numbers from 1–5 To match numerals to quantities in order To help to build towers in order from 1–5 squares To see the staircase pattern and recognise that each number is 1 more To order towers of 1–5 interlocking cubes To notice when we have '1 more' and when we do NOT have '1 more' To match numerals to representations To represent staircase patterns in different ways, knowing that each new 'step' is 1 more than the last To practise counting aloud To practise counting aloud To use generalised statements to describe the '5 and a bit' composition of the numbers 6–8 To investigate the '1 more/1 less' pattern of the base-10 counting system To begin to order numbers between 1 and 10, noticing the '5 and a bit' structure To describe the '1 more/1 less' relationship of numbers to 10 	 To use their fingers to quickly show quantities on 1 hand To recognise the numerals 1–5 To begin to develop their conceptual subitising skills with linear and paired arrangements of up to 5 dots To subitise linear and paired arrangements of 2, 3 and 4 dots To visualise and recreate arrangements of 3, 4 and 5 dots To match arrangements of 3, 4 and 5 dots to the correct numerals To match numerals to quantities for 1–5 To recognise die arrangements To visualise and describe arrangements of dots on a die To use dice to link subitised amounts with 1-to-1 counting actions To recognise die patterns to 6 To link die patterns to play track games 	 To see that there are 5 dots on a die pattern To represent 4 in different ways on a die frame To use their fingers to represent 6 as '5 and a bit' To use double dice frames to represent 6 as 5 and 1 more To match die representations of numbers 1–6 to representations on their fingers To see that 5 and '2 more' make 7 To count out 6 blocks from a collection To replace 1 block and know that there are still 6 To add another block to make 7 To use 'more than' and 'fewer than' to describe quantities To say when they can see that someone has more or fewer of the same kind of object To know that it is quantity – not colour – that determines if 1 set has more or fewer of the same type of object than another To use the words 'an equal number' to say when there is the same number of items in 2 sets To say when they can see an equal number To subitise arrangements of 6 and NOT 6 To order Number block images to 8

Composition

How many ways can we represent numbers?

- To know that 2 is made of 1 and 'another 1' • To make their own collections of 2 objects and identify the '1 and another 1' within them • To identify when a collection is composed of 3 objects • To produce their own collection of 3 To identify when a collection is composed of 3 or NOT 3 • To see that 4 can be made with four 1s • To identify the 'whole' when shown 1 part of a familiar object ٠ To identify that the parts are still visible when they are • assembled to make the whole To hear the language of 'whole' and 'parts' • To identify parts of their own body • To recognise that some whole objects have parts that cannot ٠ be removed To identify parts of some animals' bodies ٠ To investigate ways to compose and de-compose sets of 2 and ٠ 3 To know that 1 and 2 are parts of 3 ٠ To investigate ways to compose and de-compose sets of 3 ٠ • To explore how 1 and 2 are parts of 3. • To investigate ways to compose and de-compose 4 To use spatial language to describe the shapes •
- To explain that different parts can make the same whole
- To investigate ways to compose and de-compose 5

Composition

How many ways can we represent numbers?

•	To show numbers to 5 using their fingers
•	To see that 5 can be partitioned into 4 and 1
•	To show ways of making 5 on their fingers
•	To see that 5 can be partitioned into 3 and 2
•	To find ways to partition a set of 5.
•	To understand that 5 can be partitioned (split) into different
	parts
•	To be able to explain what the parts are
•	To use what they know about 5 to work out a hidden number
•	To use skills of conceptual subitising to describe parts of a
	whole set
•	To visualise arrangements and use gestures to describe the
	numbers within a whole set
•	To investigate ways of making 7 with two parts
•	To use their fingers to make and describe 7 as '5 and 2 more'
•	To notice when towers are made of 7 or NOT 7 interlocking
	cubes
•	To work out the missing part of 7 using the '5 and a bit'
	structure

- To see that 7 can be composed in different ways
- To explain their understanding of the composition of 7
- To practise identifying when 2 sets are equal in number



	Maths
	To represent 8 as '5 and 3 more' To describe how to place the numbers 1 to 8 in order To explain how to order quantities to 10 To reason about which numbers are 'more than' others To consolidate their understanding of 8 as '5 and 3 more' To notice when numbers are increased or decreased and explain their thinking
End Point	To understand and be able to apply the small steps of key knowledge and skills

				Summer			
Торіс	Counting, cardinality and ordinality	Subitising	Comparison	Composition	Shape Space and Measure	Capacity and Mass	
Enquiry Question	How many ways can we count objects?	How many ways can we represent a number?	How do we know when a number has a greater or smaller value?	How many ways can we represent numbers?	Where do we see shape in the environment?	How can we change the mass of an object?	
Key Knowledge and skills	 To count things that cannot be seen – sounds To revisit rules for how to count To discuss and practise strategies for counting larger sets. To count things that cannot be seen – actions To discuss and practise strategies for counting larger sets by moving objects. To count things that cannot be seen – periods of time To discuss and practise strategies for counting larger sets by moving images To make or represent their own collections of larger amounts. To practise counting on from a given number To discuss and practise strategies for counting larger amounts. To practise counting on from a given number To discuss and practise strategies for counting larger amounts that cannot be moved. To investigate numbers to 20 To explore number bonds to 20 To explore addition and subtraction within 20 	 To visualise, make and describe spatial arrangements of 6. To practise subitising to 6 To make and describe arrangements of 6. To listen to rhythmic patterns of up to 5 sounds and determine the quantity To recognise Number blocks and related doubles patterns on their fingers without counting. To subitise doubles amounts shown on 10-frames. 	 To join in with a backward count from 5 to 1 To order towers of cubes or number plates from 1–10 on a class number track. To identify whether numbers are before or after 5 on the number track To begin to understand the rules for simple linear track games. To reason about the position of numbers on a number track To describe and follow the rules for simple, linear track games. 	 To recap that there are 5 fingers on 1 hand To consolidate their use of finger patterns to represent the composition of 5. To use their fingers to represent the composition of 5 To identify a missing part of 5. To identify when a set of objects has 5/NOT 5 To identify that 6 can be composed of 5 and 1, and 7 can be composed of 5 and 2. To identify arrangements of 6 or 7 objects To represent numbers 6 – 9 on their fingers as '5 and a bit'. To recap the numbers 6 to 9 in the '5 and a bit' structure To identify when 10 is shown using structured arrangements of objects. To represent the composed of 2 parts To represent the composition of 10 using dice frames and finger patterns. To use structured arrangements to find missing parts of 10 	 To recognise and identify the properties of 2D shapes To recognise and identify the properties of 3D shapes 	 To compare weight To compare mass 	

Math

- To identify when a double is shown and explain why
- To say what the whole is when there are 2 equal parts
- To use objects to make doubles patterns and describe what they can see
- To show doubles patterns on their fingers in response to being given the whole
- To use positional language to describe spatial arrangements of objects
- To visualise doubles patterns to 5 and 5.
- To say what the whole is when there are 2 equal parts
- To recognise and talk about ways in which objects are similar to or different from each other (colour, size, function, shape, etc.)
- To sort objects according to attributes described by an adult
- To describe attributes that they notice for a group of objects
- To sort and re-sort objects according to their own attributes •
- ٠ To describe attributes of the Number blocks • To sort the Number blocks using the criteria 'odd blocks' or
- 'even tops'.
- To describe attributes of the Number blocks
- To investigate patterns of doubles

Length, time and height Consolidation Can the height of an object have the same length? - • To compare height - • To sequence events in order - · Other in the same length - • To sequence events in order - · Other in the same length - </th <th></th> <th></th>		
 the same length? To compare height To compare length To sequence events in 	Length, time and height	Consolidation
To compare lengthTo sequence events in	Can the height of an object have the same length?	
	To compare lengthTo sequence events in	



	Maths
	To solve problems
	involving the
	composition of 10.
	To identify pairs of
	numbers that make 10 in
	unstructured
	arrangements
	To identify a missing part
	of 10 in structured
	arrangements.
End Point	To understand and be able to apply the small steps of key knowledge and skills

Year 1

		Autumn	
Торіс	Place Value within 10	Addition and Subtraction within 10	
Enquiry Question	There are numbers everywhere. Where might you see numbers when out and about in the world?	When would you use adding and subtracting outside of a Maths lesson?	What are the
Key Knowledge and skills	In Year 1, the following small steps were: Sort objects Count objects Count objects from a larger group Represent objects Recognise numbers as words Count on from any number 1 more Count backwards within 10 1 less Compare groups by matching Fewer, more, same Less than, greater than, equal to Compare numbers Order objects and numbers The number line	In Year 1, the following small steps were: (within 10) Introduce parts and wholes Part-whole model Write number sentences Fact families – addition facts Number bonds within 10 Systematic number bonds within 10 Number bonds to 10 Addition – add together Addition – add more Addition problems Find a part Subtraction – find a part Fact families – the eight facts Subtraction – take away/cross out (how many left?) Take away (how many left?) Subtraction on a number line Add or subtract 1 or 2	The small steps of key knowle Recognise and nai Sort 3-D shapes Recognise and nai Sort 2-D shapes Patterns with 2-D

Торіс	Place Value within 20	Addition and Subtraction within 20	Place Value within 50	Length & Height	Mass & Volume
Enquiry Question	There are numbers everywhere. Where might you see numbers when out and about in the world?	When would you use adding and subtracting outside of a Maths lesson?	How would the world and life be different if numbers didn't exist?	Why is it helpful to be able to measure the length and height of objects and people?	Why is it helpful to be able to measure the mass and volume of objects and people?
Key Knowledge and skills	The small steps of key knowledge and skills in this unit are: (within 20) Count within 20 Understand 10 Understand 11, 12 and 13 Understand 14, 15 and 16 Understand 17, 18 and 19 Understand 20 1 more and 1 less The number line to 20 Use a number line to 20 Estimate on a number line to 20 Compare numbers to 20 Order numbers to 20	The small steps of key knowledge and skills in this unit are: (within 20) Add by counting on within 20 Add ones using number bonds Find and make number bonds to 20 Doubles Near doubles Subtract ones using number bonds Subtraction – counting back Subtraction – finding the difference Related facts Missing number problems	The small steps of key knowledge and skills in this unit are: (within 50) • Count from 20 to 50 • 20, 30, 40 and 50 • Count by making groups of tens • Groups of tens and ones • Partition into tens and ones • The number line to 50 • Estimate on a number line to 50 • 1 more, 1 less	The small steps of key knowledge and skills in this unit are: • Compare lengths and heights • Measure length using objects • Measure length in centimetres	The small steps of key knowledge and skills in this unit are: Heavier and lighter Measure mass Compare mass Full and empty Compare volume Measure capacity Compare capacity
End Point		To unde	rstand and be able to apply the small steps of key knowledge	and skills.	

Shape

the biggest differences between 2-D shapes and 3-D shapes?

owledge and skills in this unit are: I name 3-D shapes

name 2-D shapes

2-D and 3-D shapes



Summer							
Горіс	Multiplication & Division	Fractions	Position & Direction	Place Value within 100	Money	Time	
Enquiry Question	What types of objects or things might you wish to group outside of a Maths lesson?	Can you find a half or a quarter of anything?	When have you ever needed to follow a direction using left, right, forwards, backwards, above and below?	When might you need to compare the value of numbers at home or in life outside of school?	What is the purpose of money – what is it used for?	Why is it important to be able to tell the time?	
Key Knowledge and skills	The small steps of key knowledge and skills in this unit are: Count in 2s Count in 10s Count in 5s Recognise equal groups Add equal groups Make arrays Make doubles Make equal groups – grouping Make equal groups – sharing	 The small steps of key knowledge and skills in this unit are: Recognise a half of an object or a shape Find a half of an object or a shape Recognise a half of a quantity Find a half of a quantity Recognise a quarter of an object or a shape Find a quarter of an object or a shape Recognise a quarter of a quantity Find a quarter of a quantity Recognise a quarter of a quantity Find a quarter of a quantity Find a quarter of a quantity Find a quarter of a quantity 	 The small steps of key knowledge and skills in this unit are: Describe turns Describe position – left and right Describe position – forwards and backwards Describe position – above and below Ordinal numbers 	The small steps of key knowledge and skills in this unit are: (within 100) • Count from 50 to 100 • Tens to 100 • Partition into tens and ones • The number line to 100 • 1 more, 1 less • Compare numbers with the same number of tens • Compare any two numbers	 The small steps of key knowledge and skills in this unit are: Unitising Recognise coins Recognise notes Count in coins 	 The small steps of key knowledge and skills in this unit are: Before and after Days of the week Months of the year Hours, minutes and seconds Tell the time to the hour Tell the time to the half hour 	

Year 2

		Autumn	
Торіс	Place Value	Addition and Subtraction	
Enquiry Question	How does Place Value help us to make estimates, and how can estimation be useful in our lives?	How can adding and subtracting numbers be helpful for us in our lives?	
Key Knowledge and skills	The small steps of key knowledge and skills in this unit are: (within 10) Numbers to 20 Count objects to 100 by making 10s Recognise tens and ones Use a place value chart Partition numbers to 100 Write numbers to 100 in words Flexibly partition numbers to 100 Write numbers to 100 in expanded form 10s on the number line to 100 Estimate numbers on a number line Compare objects Order objects and numbers Count in 2s, 5s and 10s Count in 3s	The small steps of key knowledge and skills in this unit are: Bonds to 10 Fact families - addition and subtraction bonds within 20 Related facts Bonds to 100 (tens) Add and subtract 1s Add by making 10 Add three 1-digit numbers Add to the next 10 Add across a 10 Subtract arcoss 10 Subtract from a 10 Subtract 1-digit number from a 2-digit number (across a 10) 10 more, 10 less Add and subtract 10s Add two 2-digit numbers (not across a 10) Subtract two 2-digit numbers (not across a 10) Subtract two 2-digit numbers (not across a 10) Mixed addition and subtraction Compare number sentences Missing number problems	The small steps of key knowle Recognise 2-D and Count sides on 2-I Count vertices on Draw 2-D shapes Lines of symmetry Use lines of symme Sort 2-D shapes Count faces on 3-I Count edges on 3- Count vertices on Sort 3-D shapes Make patterns wit
End Point		To understand and be able to apply the small steps of key knowledge and skills.	

	Spring							
Торіс	Money	Multiplication & Division	Length & Height					
Enquiry Question	What does one hundred pounds look like? Think about the different coins and notes that exist.	What causes things to multiply outside of number?	Why do we not measure length and height in only one unit of measurement?	Wher				
Key Concepts	Measurement	The construction of number and the use of operations.	Measurement					
Key Knowledge and skills	The small steps of key knowledge and skills in this unit are: Count money – pence Count money – pounds (notes and coins) Count money – pounds and pence Choose notes and coins 	The small steps of key knowledge and skills in this unit are: Recognise equal groups Make equal groups Add equal groups Introduce the multiplication symbol 	The small steps of key knowledge and skills in this unit are: Measure in centimetres Measure in metres Compare lengths and heights Order lengths and heights	The sm				

Shape

Do you believe that shapes are everywhere?

wledge and skills in this unit are: and 3-D shapes 2-D shapes on 2-D shapes es etry on shapes nmetry to complete shapes

3-D shapes a 3-D shapes on 3-D shapes

with 2-D and 3-D shapes

Mass, Capacity & Temperature

nen might you need to weigh an object or measure the amount of liquid in a container?

Measurement

small steps of key knowledge and skills in this unit are:

Compare mass

Measure in grams

Measure in kilograms

• Four operations with mass



• Make the same amount • Multiple interfacts extences • Four operations with lengths and heights • Make anounts of money • Calculate with money • Make equal groups - grouping • Make qual groups - grouping • Make qual groups - grouping • • To understand and be able to apply the small steps of key knowledge and salits. • The 10 times-table • • Duide by 10 • The 5 and 10 times-table • • • Duide by 10 • The 5 and 10 times-table • • • Duide by 5 • The 6 and 10 times-table • • • Neare 1, the following small steps were: • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •				Maths		
Prior Knowledge In Year 1, the following small steps were: • Unitising • Recognise coins • Count in 2s • Count in 12s • Count in 12s • Recognise notes • Count in Coins • Count in 5s • Measure length using objects • Measure length using objects • Count in coins • Add equal groups • Add equal groups - grouping • Mease arrays • Measure length in centimetres • Make equal groups - sharing • Children may think that a bigger coin is greater in value, for example 2p is worth more than 5p. • Children may not line up the object they are measuring with children may not line up the object they are measuring with an array. • Children may not line up the object they are using a 15 cm ruler. • Children may mix up pounds and pence. • Children may mix up groups of 4 instead of 4 groups of 4 groups in correctly, for example 2 groups of 4 instead of 4 groups of 4 groups in correctly. • Children may not line up the object they are measuring with array. • Children may mix up pounds and pence. • Children may mix up groups of 4 instead of 4 groups of 4 stread of 4 groups in correctly. • Children may not line up the object they are measuring with array. • Children may not understand the meaning of the word "change" in context, so this might need explaining. • Children may mix up grouping and			 Compare amounts of money Calculate with money Make a pound Find change 	 Use arrays Make equal groups – grouping Make equal groups – sharing The 2 times-table Divide by 2 Doubling and halving Odd and even numbers The 10 times-table Divide by 10 The 5 times-table Divide by 5 	Four operations with lengths and heights	
 Unitising Recognise coins Count in 25 Count in coins Count in coins Recognise equal groups Add equal groups - grouping Make argusts Make qual groups - grouping Make qual groups - sharing Children may think that a bigger coin is greater in value, for example 2p is worth more than 5p. Children may simply count the number of notes/coins, rather than consider their value. Children may not understand the meaning of the word "change" in context, so this might need explaining. Children may not understand the meaning of the word "change" in context, so this might need explaining. Core Key Words Money, pence, pound, coin, notes, notation, value, how much, Equal, same, groups, multiply, multiplication, lots of, divide, division, Length, height, tailer, shortest 	End Po	Point	To understand and be able to apply the small steps of key knowledge and			<u>.</u>
Key Misconceptions Children may think that a bigger coin is greater in value, for example 2p is worth more than 5p. Children may simply count the number of notes/coins, rather than consider their value. Children may think that coins are always pence. Children may not understand the meaning of the word "change" in context, so this might need explaining. Children may mix up grouping and sharing. Children may multiplication, lots of, divide, division, Length, height, taller, tallest, shorter, shortest 	Prior H	Knowledge	 Unitising Recognise coins Recognise notes 	 Count in 2s Count in 10s Count in 5s Recognise equal groups Add equal groups Make arrays Make doubles Make equal groups – grouping 	Compare lengths and heightsMeasure length using objects	In Year
	Key M	Aisconceptions	 example 2p is worth more than 5p. Children may simply count the number of notes/coins, rather than consider their value. Children may think that coins are always pence. Children may mix up pounds and pence. Children may not understand the meaning of the word 	 Children may not be able to spot equal and unequal groups. Children may not realise that two groups are equal if they do not look the same. Children may represent a set of equal groups incorrectly, for example 2 groups of 4 instead of 4 groups of 2 Children may not see the different sets of equal groups in an array. 	 zero on the ruler. Children may think that they cannot measure the length or height of anything beyond 15 cm if they are using a 15 cm ruler. Children may not line up the object they are measuring with zero, leading to an incorrect measurement. Children may confuse the words "longer" and "taller". Children may think that centimetres are bigger than metres 	•
	Core k	Key Words			Length, height, taller, tallest, shorter, shortest	Heavie less, so tempe

		Summer		
Торіс	Fractions	Time	Statistics	
Enquiry Question	Why might you need to know what a half, a quarter and a third looks like?	Even though digital clocks exist, do we still need to tell the time on an analogue clock?	When is it useful to keep a tally / count of something?	
Key Knowledge and skills	The small steps of key knowledge and skills in this unit are: Introduction to parts and whole Equal and unequal parts Recognise a half Find a half Recognise a quarter Find a quarter Recognise a third Find a third Find the whole Unit fractions Non-unit fractions Recognise the equivalence of a half and two-quarters Recognise three-quarters Find three-quarters Count in fractions up to a whole	 O'clock and half past Quarter past and quarter to Tell the time past the hour Tell the time to the hour Tell the time to 5 minutes Minutes in an hour Hours in a day 	The small steps of key knowledge and skills in this unit are: Make tally charts Tables Block diagrams Draw pictograms (1–1) Interpret pictograms (1–1) Draw pictograms (2, 5 and 10) Interpret pictograms (2, 5 and 10)	The sm
End Point	To understa	nd and be able to apply the small steps of key knowledge and skills.		

- Compare volume and capacity
- Measure in millilitres
- Measure in litres
- Four operations with volume and capacity
- Temperature

ear 1, the following small steps were:

- Heavier and lighter
- Measure mass
- Compare mass
- Full and empty
- Compare volume
- Measure capacity
- Compare capacity
- Children may think that the larger the object, the greater its mass must be.
- Children may not read circular scales accurately, particularly if the arrow is not pointing to a number.
- Children may not understand the difference between kilograms and grams.
- Children may think it is impossible to compare the capacities of two different-sized/shaped containers.
- Children may mix up millilitres and litres.

vier, heaviest, mass, lighter, lightest, more , scales, balance, millilitres, litres, grams, kilograms, capacity, volume, perature, Celsius, heat, warm, cold.

Position & Direction

When might you need to give someone directions?

small steps of key knowledge and skills in this unit are:

- Language of position
- Describe movement
- Describe turns
- Describe movement and turns
- Shape patterns with turns



	Autumn						
Торіс	Place Value	Addition and Subtraction					
Enquiry Question	How can a good understanding of number and place value help us with everyday life - when could we use it or need it?	How have addition and subtraction methods altered over time?	Do you agree that knowled				
Key Knowledge and skills	The small steps of key knowledge and skills in this unit are: Represent numbers to 100 Partition numbers to 100 Hundreds Represent numbers to 1,000 Partition numbers to 1,000 Flexible partitioning of numbers to 1,000 Hundreds, tens and ones Find 1, 10 or 100 more or less Number line to 1,000 Estimate on a number line to 1,000 Compare numbers to 1,000 Order numbers to 1,000 Count in 50s	The small steps of key knowledge and skills in this unit are: Apply number bonds within 10 Add and subtract 1s Add and subtract 10s Add and subtract 100s Spot the pattern Add 1s across a 10 Add 10s across a 100 Subtract 1s across a 100 Subtract 1s across a 100 Make connections Add two numbers (no exchange) Subtract two numbers (no exchange) Add two numbers (across a 10) Add two numbers (across a 10) Add two numbers (across a 100) Subtract two numbers (across a 100) Add two numbers (across a 100) Subtract two numbers (across a 100) Make decisions Make decisions	The small steps of key knowledge Multiplication – equa Use arrays Multiples of 2 Multiples of 5 and 10 Sharing and grouping Multiply by 3 Divide by 3 The 3 times-table Multiply by 4 Divide by 4 The 4 times-table Multiply by 8 Divide by 8 The 8 times-table The 2, 4 and 8 times-table				
End Point		To understand and be able to apply the small steps of key knowledge and skil	ls.				

Key Knowledge and skills The small	Multiplications & Division B s our knowledge of place value important when multiplying and dividing by 10 and 100?	Length & Perimeter When might we be able to apply our knowledge of perimeter? What Scenarios can you think of?	Fractions A How can you prove that as the denominator increases, the fraction gets smaller? Give examples.	Mass & Capacity How can our knowledge of mass and capacity help us in our lives?
Key Knowledge and skills The small	dividing by 10 and 100?			How can our knowledge of mass and capacity help us in our lives?
• • • Sc	all steps of key knowledge and skills in this unit are: Multiples of 10 Related calculations Reasoning about multiplication Multiply a 2-digit number by a 1-digit number – no exchange Multiply a 2-digit number by a 1-digit number – with exchange Link multiplication and division Divide a 2-digit number by a 1-digit number – no exchange Divide a 2-digit number by a 1-digit number – flexible partitioning Divide a 2-digit number by a 1-digit number – with remainders Scaling How many ways?	 The small steps of key knowledge and skills in this unit are: Measure in metres and centimetres Measure in centimetres and millimetres Metres, centimetres and millimetres Equivalent lengths (metres and centimetres) Equivalent lengths (centimetres and millimetres) Compare lengths Add lengths Subtract lengths What is perimeter? Measure perimeter Calculate perimeter 	The small steps of key knowledge and skills in this unit are: Understand the denominators of unit fractions Compare and order unit fractions Understand the numerators of non-unit fractions Understand the whole Compare and order non-unit fractions Fractions and scales Fractions on a number line Count in fractions on a number line Equivalent fractions as bar models 	 The small steps of key knowledge and skills in this unit are: Use scales Measure mass in grams Measure mass in kilograms and grams Equivalent masses (kilograms and grams) Compare mass Add and subtract mass Measure capacity and volume in millilitres Measure capacities and volumes (litres and millilitres) Compare capacity and volume Add and subtract capacity and volume

		Summer			
Торіс	Fractions B	Money	Time	Shape	Statistics
Enquiry Question	How can we use our knowledge of multiplication when finding a fraction of an amount?	Why is it important to understand how to use money?	Why is time management important in our future? Give examples.	How does our knowledge of shape benefit us in our everyday lives?	How does our knowledge of statistics help us to analyse data?

Year 3

Multiplication & Division A

owledge of multiplication and division can help to improve our mental calculations? Explain.

wledge and skills in this unit are: equal groups

nd 10 ouping

le imes-tables



	Maths					
Key Knowledge and skills	The small steps of key knowledge and skills in this unit	The small steps of key knowledge and skills in this unit	The small steps of key knowledge and skills in this unit	The small steps of key knowledge and skills in this unit	The small steps of key knowledge and skills in this unit	
	 are: Add fractions Subtract fractions Partition the whole Unit fractions of a set of objects Non-unit fractions of a set of objects Reasoning with fractions of an amount 	are: Pounds and pence Convert pounds and pence Add money Subtract money Find change	are: • Roman numerals to 12 • Tell the time to 5 minutes • Tell the time to the minute • Read time on a digital clock • Use am and pm • Years, months and days • Days and hours • Hours and minutes – use start and end times • Hours and minutes - use durations • Minutes and seconds • Units of time • Solve problems with time	are: Turns and angles Right angles Compare angles Measure and draw accurately Horizontal and vertical Parallel and perpendicular Recognise and describe 2-D shapes Draw polygons Recognise and describe 3-D shapes Make 3-D shapes	are: Interpret pictograms Draw pictograms Interpret bar charts Draw bar charts Collect and represent data Two-way tables	
End Point		To un	derstand and be able to apply the small steps of key knowledge	and skills.		

Year 4

Торіс	Place Value	Addition and Subtraction	Area	Multiplication & Division A
Enquiry Question	How does a good understanding of place value allow us to order and compare numbers easily and quickly?	What are benefits of using efficient strategies in comparison to formal written methods?	When can we apply our knowledge of area in our daily lives?	In what other areas of maths can we apply our multiplication and division knowledge and skills? How does this help us to be successful?
Key Knowledge and skills	The small steps of key knowledge and skills in this unit are: Represent numbers to 1,000 Partition numbers to 1,000 Number line to 1,000 Thousands Represent numbers to 10,000 Partition numbers to 10,000 Flexible partitioning of numbers to 10,000 Find 1, 10, 100, 1,000 more or less Number line to 10,000 Estimate on a number line to 10,000 Compare numbers to 10,000 Compare numbers to 10,000 Roman numerals Round to the nearest 10 Round to the nearest 1,000 Round to the nearest 1,000	 The small steps of key knowledge and skills in this unit are: Add and subtract 1s, 10s, 100s and 1,000s Add up to two 4-digit numbers – no exchange Add two 4-digit numbers – one exchange Add two 4-digit numbers – more than one exchange Subtract two 4-digit numbers – no exchange Subtract two 4-digit numbers – nore than one exchange Subtract two 4-digit numbers – more than one exchange Subtract two 4-digit numbers – more than one exchange Checking strategies 	The small steps of key knowledge and skills in this unit are: What is area? Count squares Make shapes Compare areas 	The small steps of key knowledge and skills in this unit are:•Multiples of 3•Multiply and divide by 6•6 times-table and division facts•Multiply and divide by 9•9 times-table and division facts•The 3, 6 and 9 times-tables•Multiply and divide by 7•7 times-table and division facts•11 times-table and division facts•12 times-table and division facts•12 times-table and division facts•Multiply by 1 and 0•Divide a number by 1 and itself•Multiply three numbers

TopicMultiplications & Division BEnquiry QuestionWhen we multiply and divide by 10 and 100, we just ad zeros. To what extent do you agree/disagree with theKey Knowledge and skillsThe small steps of key knowledge and skills in this unit a • Factor pairs • Use factor pairs • Multiply by 10 • Multiply by 10 • Divide by 10 • Divide by 10 • Divide by 10 • Related facts – multiplication and division • Informal written methods for multiplication • Multiply a 3-digit number by a 1-digit number • Divide a 2-digit number by a 1-digit number	Spring						
Xey Knowledge and skills The small steps of key knowledge and skills in this unit a Factor pairs Use factor pairs Multiply by 10 Multiply by 100 Divide by 10 Divide by 10 Informal written methods for multiplication Informal written methods for multiplication Multiply a 3-digit number by a 1-digit number	Length & Perimeter	Fractions	Decimals A				
 Factor pairs Use factor pairs Multiply by 10 Multiply by 100 Divide by 10 Divide by 100 Related facts – multiplication and division Informal written methods for multiplication Multiply a 2-digit number by a 1-digit numbe Multiply a 3-digit number by a 1-digit numbe 		Fractions must always be less than 1 whole. Why is this statement false?	What would happen if we did not have a decimal point? Is there another way that we can separate the whole number and the fractional part of a number?				
 Divide a 2-digit number by a 1-digit number (Divide a 3-digit number by a 1-digit number Correspondence problems Efficient multiplication 	 Measure in kilometres and metres Equivalent lengths (kilometres and metres) Perimeter on a grid Perimeter of a rectangle Perimeter of rectilinear shapes Find missing lengths in rectilinear shapes Calculate perimeter of rectilinear shapes Perimeter of regular polygons Perimeter of polygons 	The small steps of key knowledge and skills in this unit are: Understand the whole Count beyond 1 Partition a mixed number Number lines with mixed numbers Compare and order mixed numbers Understand improper fractions Convert mixed numbers to improper fractions Convert mixed numbers to improper fractions Convert improper fractions to mixed numbers Equivalent fractions on a number line Equivalent fraction families Add two or more fractions Subtract two fractions Subtract from whole amounts Subtract from mixed numbers 	 The small steps of key knowledge and skills in this unit are: Tenths as fractions Tenths on a place value chart Tenths on a number line Divide a 1-digit number by 10 Divide a 2-digit number by 10 Hundredths as fractions Hundredths on a place value chart Divide a 1- or 2-digit number by 100 				



Summer						
Торіс	Decimals B	Money	Time	Shape	Statistics	Position & Direction
Enquiry Question	How do decimal points support us in our daily lives? Are they useful? Explain.	If you were buying several items in a shop, how would estimating support you to ensure that you do not spend over your budget?	In you daily lives, when would you need to convert time from a 12-hour format to a 24- hour format? Is the 12-hour format still relevant?	When do we use shapes in our everyday lives? Are they useful? What vocabulary might we use?	How would you use statistics to gather information on the pupils in your class? How would you present this information?	How does a knowledge of coordinates benefit us in our lives? Can you prove an examples?
Key Knowledge and skills	The small steps of key knowledge and skills in this unit are: Make a whole with tenths Make a whole with hundredths Partition decimals Flexibly partition decimals Compare decimals Order decimals Round to the nearest whole number Halves and guarters as decimals	The small steps of key knowledge and skills in this unit are: Write money using decimals Convert between pounds and pence Compare amounts of money Estimate with money Calculate with money Solve problems with money	 The small steps of key knowledge and skills in this unit are: Years, months, weeks and days Hours, minutes and seconds Convert between analogue and digital times Convert to the 24-hour clock Convert from the 24-hour clock 	The small steps of key knowledge and skills in this unit are: Understand angles as turns Identify angles Compare and order angles Triangles Quadrilaterals Polygons Lines of symmetry Complete a symmetric figure	 The small steps of key knowledge and skills in this unit are: Interpret charts Comparison, sum and difference Interpret line graphs Draw line graphs 	 The small steps of key knowledge and skills in this unit are: Describe position using coordinates Plot coordinates Draw 2-D shapes on a grid Translate on a grid Describe translation on a grid

Year 5

		Autumn		
Торіс	Place Value	Addition and Subtraction	Multiplication & Division A	Fractions A
Enquiry Question	Why is it important to understand the numbers I am using?	What is the most effective method of addition and subtraction and how can I check for accuracy?	How can I use my times table knowledge in a range of ways?	Unit Fractions allow us to see proportions of quantities – when might this be important or helpful in our lives?
Key Knowledge and skills	The small steps of key knowledge and skills in this unit are: Roman numerals to 1,000 Numbers to 10,000 Numbers to 100,000 Read and write numbers to 1,000,000 Powers of 10 10/100/1,000/100,000 more or less Partition numbers to 1,000,000 Number line to 1,000,000 Compare and order numbers to 100,000 Compare and order numbers to 1,000,000 Round to the nearest 10, 100 or 1,000 Round within 100,000 Round within 1,000,000	 The small steps of key knowledge and skills in this unit are: Mental strategies Add whole numbers with more than four digits Subtract whole numbers with more than four digits Round to check answers Inverse operations (addition and subtraction) Multi-step addition and subtraction problems Compare calculations Find missing numbers 	The small steps of key knowledge and skills in this unit are: Multiples Common multiples Factors Common factors Prime numbers Square numbers Cube numbers Multiply by 10, 100 and 1,000 Divide by 10, 100 and 1,000 Multiples of 10, 100 and 1,000	The small steps of key knowledge and skills in this unit are: Find fractions equivalent to a unit fraction Find fractions equivalent to a non-unit fraction Recognise equivalent fractions Convert improper fractions to mixed numbers Convert mixed numbers to improper fractions Compare fractions less than 1 Order fractions less than 1 Compare and order fractions greater than 1 Add and subtract fractions with the same denominator Add fractions within 1 Add fractions with total greater than 1 Add to a mixed number Add two mixed number Subtract fractions Subtract from a mixed number Subtract from a mixed number
End Point		To understand and be able to apply the	small steps of key knowledge and skills.	

Торіс	Multiplications & Division B	Fractions B	Decimals & Percentages	Perimeter & Area	Statistics
Enquiry Question	What is the most effective method of multiplication and division and how can I check for accuracy?	In business, why is it useful to be able to find a fraction of an amount?	How do decimals and percentages link with fractions?	What is the difference between the area of a shape and the perimeter of a shape?	How can I use graphs and tables to represent data?
Key Knowledge and skills	 The small steps of key knowledge and skills in this unit are: Multiply up to a 4-digit number by a 1-digit number Multiply a 2-digit number by a 2-digit number (area model) Multiply a 2-digit number by a 2-digit number Multiply a 3-digit number by a 2-digit number Multiply a 4-digit number by a 2-digit number Solve problems with multiplication Short division Divide a 4-digit number by a 1-digit number Divide with remainders Efficient division Solve problems with multiplication and division 	 The small steps of key knowledge and skills in this unit are: Multiply a unit fraction by an integer Multiply a non-unit fraction by an integer Multiply a mixed number by an integer Calculate a fraction of a quantity Fraction of an amount Find the whole Use fractions as operators 	 The small steps of key knowledge and skills in this unit are: Decimals up to 2 decimal places Equivalent fractions and decimals (tenths) Equivalent fractions and decimals (hundredths) Equivalent fractions and decimals Thousandths as fractions Thousandths on a place value chart Order and compare decimals (same number of decimal places) 	The small steps of key knowledge and skills in this unit are: Perimeter of rectangles Perimeter of rectilinear shapes Perimeter of polygons Area of rectangles Area of compound shapes Estimate area	 The small steps of key knowledge and skills in this unit are: Draw line graphs Read and interpret line graphs Read and interpret tables Two-way tables Read and interpret timetables



	Maths
	 Order and compare any decimals with up to 3 decimal places Round to the nearest whole number Round to 1 decimal place Understand percentages Percentages as fractions Percentages as decimals Equivalent fractions, decimals and percentages
End Point	To understand and be able to apply the small steps of key knowledge and skills.

			Summer			
Торіс	Shape	Position & Direction	Decimals	Negative Numbers	Converting Units	Volume
Enquiry Question	What jobs / careers require the knowledge of measuring and working with angles?	In what other areas of the curriculum would I use coordinates and how?	How many decimal points do you think we need to work within, within our lives and future careers, and why is this important?	What happens when you count down from zero?	How can different units of measure be converted and compared?	What is volume a measure of and how can it be calculated?
Key Knowledge and skills	 The small steps of key knowledge and skills in this unit are: Understand and use degrees Classify angles Estimate angles Measure angles up to 180° Draw lines and angles accurately Calculate angles on a straight line Lengths and angles in shapes Regular and irregular polygons 3-D shapes 	 The small steps of key knowledge and skills in this unit are: Read and plot coordinates Problem solving with coordinates Translation Translation with coordinates Lines of symmetry Reflection in horizontal and vertical lines 	 The small steps of key knowledge and skills in this unit are: Use known facts to add and subtract decimals within 1 Complements to 1 Add and subtract decimals across 1 Add decimals with the same number of decimal places Subtract decimals with the same number of decimal places Add decimals with different numbers of decimal places Subtract decimals with different numbers of decimal places Efficient strategies for adding and subtracting decimals Decimal sequences Multiply by 10, 100 and 1,000 Multiply and divide decimals – missing values 	 The small steps of key knowledge and skills in this unit are: Understand negative numbers Count through zero in 1s Count through zero in multiples Compare and order negative numbers Find the difference 	 The small steps of key knowledge and skills in this unit are: Kilograms and kilometres Millimetres and millilitres Convert units of length Convert between metric and imperial units Convert units of time Calculate with timetables 	The small steps of key knowledge and skills in this unit are: • Cubic centimetres • Compare volume • Estimate volume • Estimate capacity

<u>Year 6</u>

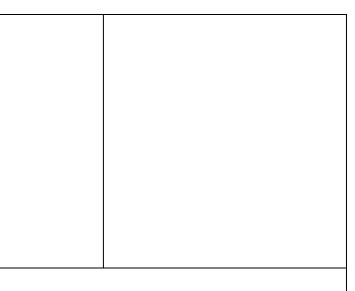
		Autumn			
Торіс	Place Value	Addition, Subtraction, Multiplication & Division	Fractions A	Fractions B	Converting Units
Enquiry Question	How can understanding numbers up to ten million help me in the future?	What are the most efficient methods to use when multiplying and dividing by two-digit numbers?	How can I manipulate fractions by finding equivalence, adding and subtracting?	How can I manipulate fractions by finding part of an amount, multiplying and dividing?	Which units of measure are most efficient – metri or imperial?
Key Knowledge and skills	The small steps of key knowledge and skills in this unit are: Numbers to 1,000,000 Read and write numbers to 10,000,000 Powers of 10 Number line to 10,000,000 Compare and order any integers Round any integer Negative numbers	The small steps of key knowledge and skills in this unit are: • Add and subtract integers • Common factors • Common multiples • Rules of divisibility • Primes to 100 • Square and cube numbers • Multiply up to a 4-digit number by a 2-digit number • Solve problems with multiplication • Short division • Division using factors • Introduction to long division • Long division with remainders • Solve problems with division • Corder of operations • Mental calculations and estimation	The small steps of key knowledge and skills in this unit are: Equivalent fractions and simplifying Equivalent fractions on a number line Compare and order (denominator) Compare and order (numerator) Add and subtract simple fractions Add and subtract any two fractions Add mixed numbers Subtract mixed numbers Multi-step problems	 The small steps of key knowledge and skills in this unit are: Multiply fractions by integers Multiply fractions by fractions Divide a fraction by an integer Divide any fraction by an integer Mixed questions with fractions Fraction of an amount Fraction of an amount – find the whole 	The small steps of key knowledge and skills in this unit are: • Metric measures • Convert metric measures • Calculate with metric measures • Miles and kilometres • Imperial measures



	Maths				
		Reason from known facts			
End Point		To und	erstand and be able to apply the small steps of key know	vledge and skills.	

		2	Spring			
Торіс	Ratio	Algebra	Decimals	Fractions, Decimals & Percentages	Area, Perimeter & Volume	Statistics
Enquiry Question	How are fractions and ratio similar?	How can letters be used in Maths?	How do I represent numbers which are between whole numbers?	How are fractions, decimals and percentages linked?	In what ways can I use area, perimeter and volume outside of Maths?	How would the use of statistics help me in other subjects?
Key Knowledge and skills	The small steps of key knowledge and skills in this unit are: Add or multiply? Use ratio language Introduction to the ratio symbol Ratio and fractions Scale drawing Use scale factors Similar shapes Ratio problems Proportion problems Recipes	The small steps of key knowledge and skills in this unit are:	 The small steps of key knowledge and skills in this unit are: Place value within 1 Place value – integers and decimals Round decimals Add and subtract decimals Multiply by 10, 100 and 1,000 Divide by 10, 100 and 1,000 Multiply decimals by integers Divide decimals by integers Multiply and divide decimals in context 	The small steps of key knowledge and skills in this unit are: Decimal and fraction equivalents Fractions as division Understand percentages Fractions to percentages Equivalent fractions, decimals and percentages Order fractions, decimals and percentage Percentage of an amount – one step Percentage of an amount – multi-step Percentages – missing values	 The small steps of key knowledge and skills in this unit are: Shapes – same area Area and perimeter Area of a triangle – counting squares Area of a right-angled triangle Area of any triangle Area of a parallelogram Volume – counting cubes Volume of a cuboid 	The small steps of key knowledge and skills in this unit are: Line graphs Dual bar charts Read and interpret pie charts Pie charts with percentages Draw pie charts The mean
End Point			To understand and be able to ap	ply the small steps of key knowledge and skills.		1

		Summer						
Торіс	Shape	Position & Direction						
Enquiry Question	How can I calculate angles if they are not written on?	How can I use coordinates to draw shapes?						
Key Knowledge and skills	The small steps of key knowledge and skills in this unit are: Measure and classify angles Calculate angles Vertically opposite angles Angles in a triangle Angles in a triangle – special cases Angles in a triangle – missing angles Angles in a quadrilateral Angles in polygons Circles Draw shapes accurately Nets of 3-D shapes 	The small steps of key knowledge and skills in this unit are: The first quadrant Read and plot points in four quadrants Solve problems with coordinates Translations Reflections	The small steps of ke are: Describe Predict a Sequence Linear ar Continue Explain ti Find miss					
End Point		To understand and be able to apply the small steps of key knowledge an	d skills					



Themed projects, consolidation & Problem Solving

How can I use algebra to prepare for high school?

f key knowledge and skills which may be studied in preparation for Year 7

- be and continue sequences
- t and check next term(s)
- nces in a table and graphically
- and non-linear sequences
- nue linear sequences
- nue non-linear sequences
- n the term-to-term rule
- nissing terms