

Year 1

Mathematics

Non-Negotiables

• Here are the Year 1 mathematics non-negotiables:

- Count to and across 100, forwards and backwards from any number.
- Read and write numbers to 20 in digits and words.
- Read and write numbers to 100 in digits.
- Say '1 more' and '1 less' to 100.
- Count in multiples of 1, 2, 5 and 10.
- Know bonds to 10 by heart.
- Use bonds and subtraction facts to 20.

Add and subtract:

- 1 digit and 2 digit numbers to 20, including zero.
 - Add any three 1-digit numbers with a total up to 20.
 - Solve simple addition and division with apparatus and arrays.
-
- Recognise half and quarter of object, shape or quantity.
 - Sequence events in order.
 - Use language of day, week, month and year.
 - Tell time to hour and half past.

The following 3 pages suggest a planning outline for delivering the non-negotiables in classrooms.
There should be some element of teaching of these each day.

Year 3 Arithmetic Non-Negotiables	
Autumn Term	
1st Half Term	2nd Half Term
<ul style="list-style-type: none"> • Count to and across to at least 20 -forwards and backwards beginning with 1 • Read and write numbers to 20 in numerals and write numbers in words to 10 • Count in 2s to 20 • Identify one more and one less than a given number to 20 • Order objects using the terms 1st , 2nd, 3rd, 4th, 5th • Find the missing number in a sequence up to 10 • Add/subtract 2, 1-digit numbers to 10 	<ul style="list-style-type: none"> • Count to and across to at least 50 -forwards and backwards beginning with 0 and 1, or from any other given number • Read and write numbers to 20 and beyond in numerals and write numbers in words to 10 • Count in 2s to 20 and beyond • Count in 5s to beyond 20 • Count in 10s to 50 • Identify one more and less than a given number to 20 and beyond • Order objects using the terms 1st , 2nd, 3rd, 4th, 5th and beyond • Find the missing number in a sequence up to 10 and beyond • Add/subtract 2 1-digit numbers to 10, including 0

Year 1
Arithmetic
Non-Negotiables

Spring Term

1st Half Term

- Count to and across to at least 50 -forwards and backwards beginning with 0 and 1 or from any other given number
- Read and write numbers to 50 in numerals and begin to write numbers in words to 20
- Count in 2s and 5s to 50
- Count in 10s to 50 and beyond
- Identify one more and one less than a given number to 50
- Order objects using the terms 1st, 2nd, 3rd to 10th
- Find the missing number in a sequence up to 20
- Add/subtract 2-digit and 1-digit numbers to 10 and beyond

2nd Half Term

- Count to and across to at least 50 -forwards and backwards beginning with 0 and 1 or from any other given number
- Read and write numbers to 50 and beyond in numerals and continue to write numbers in words to 20
- Count in 2s and 5s to 50 and beyond
- Count in 10s to 100
- Identify one more and one less than a given number to 50 and beyond
- Order objects using the terms 1st , 2nd, 3rd to 10th
- Find the missing number in a sequence up to 20 and beyond
- Add/subtract 2-digit and 1-digit numbers to 10 and beyond

Year 1
Arithmetic
Non-Negotiables

Summer Term

1st Half Term

- Count to and across to at least 100 and beyond forwards and backwards from any given number
- Read and write numbers to 100 in numerals and write numbers in words to 20
- Count in 2s, 5s and 10s to 100
- Identify one more and one less than a given number to 100
- Find the missing number in a sequence up to 50
- Add/subtract 2-digit and 1-digit numbers to 20
- Double numbers up to 5
- Halve even numbers up to 10

2nd Half Term

- Count to and across to at least 100 and beyond forwards and backwards beginning with 0 and 1 or from any given number
- Count in 2s, 5s and 10s to 100 and beyond
- Identify and write down the number which is one more and less than a given number to 100
- Find the missing number in a sequence up to 100
- Add/subtract 2-digit and 1-digit numbers to 20
- Double numbers up to 10
- Halve even numbers up to 20

YEAR 1 : AUTUMN 1: Overview and Teaching Steps

WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
1 Number and place Value	2 Number and place Value	1 Measures Length & Weight	1 Addition & Subtraction	2 Addition & Subtraction	1 Geometry 2D & 3D Shape
Count to and across 100, forward and backward, beginning with 0 or 1, or from any given number	Count in multiples of 2s, 5s and 10s	Compare, describe & solve practical problems for: Lengths & heights and Mass/weight	Read, write and interpret mathematical statements involving + - = signs.	Represent and use number bonds and related subtraction facts within 20.	Recognise and name common 2D shapes, including: 2D, e.g. circles, triangles
<ul style="list-style-type: none"> ➤ Count on from 0-20 ➤ Count on from 0-50 ➤ Count on from 0-100 ➤ Count on from any number to 20 ➤ Count on from any number to 50 ➤ Count on from any number to 100 ➤ Count back from 10 to 0 ➤ Count back from 20 to 0 ➤ Count back from 50 to 0 ➤ Count back from 100 to 0 ➤ Count back from any number smaller than 10 to 0 ➤ Count back from any number smaller than 20 to 0 ➤ Count back from any number smaller than 50 to 0 ➤ Count back from any number smaller than 100 to 0 ➤ Count on beyond 100 ➤ Count back starting with a number greater than 100 	<ul style="list-style-type: none"> ➤ Count in 10s to 50 ➤ Count in 10s to 100 ➤ Count in 2s to 20 ➤ Count in 2s to 50 ➤ Count in 2s to 100 ➤ Count in 5s to 50 ➤ Count in 5s to 100 	<ul style="list-style-type: none"> ➤ Use the following vocabulary correctly in context: long, short, longer, shorter, tall, short, double, half. ➤ Compare two objects and say which is longest/shortest. ➤ Order up to five objects by length. ➤ Compare two objects and say which is tallest/shortest. ➤ Order up to five objects by height. ➤ Use the following vocabulary correctly in context: heavy, light, heavier than, lighter than. ➤ Compare two objects and say which is heaviest/lightest ➤ Order up to five objects by weight. 	<ul style="list-style-type: none"> ➤ Use + - = sign with concrete objects. ➤ Record statements using + - = in written form. 	<ul style="list-style-type: none"> ➤ Know and use all addition bonds to 5. ➤ Know and use all addition bonds to 10. ➤ Know and use all addition bonds to 20. ➤ Know and use all subtraction facts to 5. ➤ Know and use all subtraction facts to 10. ➤ Know and use all subtraction facts to 20. 	<ul style="list-style-type: none"> ➤ Identify and name squares (in any orientation) ➤ Identify and name rectangles (in any orientation) ➤ Identify and name circles (in any orientation) ➤ Identify and name triangles (in any orientation)

YEAR 1 : AUTUMN 2: Overview and Teaching Steps

WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
3 Number and place Value	1 Fractions	2 Measures Capacity and Volume	3 Measures Money	4 Measures Time	Consolidate and Assess
Count in multiples of 2s, 5s and 10s Read and write numbers to 100 in numerals	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 two equal parts of an object, shape or quantity.	Compare, describe & solve practical problems for: - Capacity & volume	Recognise & know the value of different denominations or coins & notes.	Sequence events in chronological order using language (e.g. before, after, next, first, today, yesterday, tomorrow, morning, afternoon, evening). Recognise & use language relating to dates, including days of the week, weeks, months, years.	Start this week by revising the learning covered in the Autumn term so as to ensure pupils are fluent and secure with their basic skills. Use a simple assessment process to check on pupils' confidence and consistency in using the learning outlined in the Autumn term. Analyse the results and use information to help focus the pre-teaching sessions, as needed, for the following term.
<ul style="list-style-type: none"> ➤ Count in 10s to 50 ➤ Count in 10s to 100 ➤ Count in 2s to 20 ➤ Count in 2s to 50 ➤ Count in 2s to 100 ➤ Count in 5s to 50 ➤ Count in 5s to 100 ➤ Read and write all numerals accurately to 5 ➤ Read and write all numerals accurately to 10 ➤ Read and write all numerals accurately to 20 ➤ Read and write all numerals accurately to 50 ➤ Read and write all numerals accurately to 100 	<ul style="list-style-type: none"> ➤ Estimate what half of a given object might be. ➤ Estimate what half of a given shape might be. ➤ Use practical apparatus to show half of a given number of objects. ➤ Show they understand that halves are two equal parts. ➤ Estimate what a quarter of a given object might be. ➤ Estimate what a quarter of a given shape might be. ➤ Use practical apparatus to show a quarter of a given number of objects. ➤ Show they understand that quarters are four equal parts. 	<ul style="list-style-type: none"> ➤ Use the following vocabulary correctly in context: full, empty, more than, less than, half full, quarter full. ➤ Compare two containers and say which is full, empty and half full. 	<ul style="list-style-type: none"> ➤ Recognise 1p coin ➤ Recognise 2p coin ➤ Recognise 5p coin ➤ Recognise 10p coin ➤ Recognise 20p coin ➤ Recognise 50p coin ➤ Recognise £1 coin ➤ Recognise £2 coin ➤ Recognise £5 note ➤ Recognise £10 note ➤ Compare and order coins based on value ➤ Make given amounts up to £1 using coin combinations 	<ul style="list-style-type: none"> ➤ Order: morning afternoon and evening. ➤ Order events that occur in the morning, afternoon and evening. ➤ Use terms: before, next and after accurately. ➤ Use terms: today, tomorrow and yesterday accurately. ➤ Order the days of the week. ➤ Order the months of the year. ➤ Know the number of days in a week. ➤ Know the number of months in a year 	

YEAR 1 : SPRING 1: Overview and Teaching Steps

WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
4 Number and place Value	5 Measures Mass and Weight	2 Geometry 2D and 3D shapes	6 Measures Money	3 Addition and Subtraction	4 Addition and subtraction
Given a number, identify 1 more or 1 less.	Measure & begin to record the following: - Mass/weight	Identify & describe common 2D shapes, including: - 2D, e.g. rectangles (including squares) circles, triangles	Continue with: Recognise & know the value of different denominations or coins and notes.	Add and subtract 1-digit and 2-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.
<ul style="list-style-type: none"> ➤ Know 1 more than a given number to 20 ➤ Know 1 more than a given number to 50 ➤ Know 1 more than a given number to 100 ➤ Know 1 less than a given number to 20 ➤ Know 1 less than a given number to 50 ➤ Know 1 less than a given number to 100 ➤ Write a number that is one more than any given number to 20 ➤ Write a number that is 1 less than any given number to 20 	<ul style="list-style-type: none"> ➤ Measure weight using a range of non-standard units and compare mass/weight. ➤ Begin to measure mass in g and kg. 	<ul style="list-style-type: none"> ➤ Identify and name squares, rectangles, circles and squares (in any orientation) ➤ Describe the properties of a square – talk about number of sides and length of sides ➤ Describe the properties of a rectangle and how they differ from a square ➤ Describe the properties of a triangle – talk about the number of sides and how they can look very different ➤ Describe the properties of a circle and how they can vary in size. 	<ul style="list-style-type: none"> ➤ Make given amounts up to £1 using coin combinations 	<p>Mentally:</p> <ul style="list-style-type: none"> ➤ Add two 1-digit numbers to ten. ➤ Add two 1-digit numbers to 18. ➤ Add two numbers that equal any number up to 20, including zero. ➤ Subtract two 1-digit numbers. ➤ Subtract a 1-digit number from a 2-digit number up to 20. ➤ Subtract a 2-digit number from a 2-digit number up to 20. 	<ul style="list-style-type: none"> ➤ Solve one step problems involving addition to 10, using concrete objects and pictorial representations ➤ Solve one step problems involving subtraction to 10, using concrete objects and pictorial representations ➤ Solve one step problems involving addition to 20, using concrete objects and pictorial representations ➤ Solve one step problems involving subtraction to 20, using concrete objects and pictorial representations

YEAR 1 : SPRING 2: Overview and Teaching Steps

WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
7 Measures Length and Weight Measure & begin to record the following: - Length & heights - Mass/weight	1 Multiplication and Division Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	2 Fractions Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.	3 Geometry Position and Direction Describe position, direction and movement, including half, quarter and three-quarter turns	8 Measures Time Compare, describe & solve practical problems for: - Time	Consolidate and Assess Start this week by revising the learning covered in the Autumn and Spring terms so as to ensure pupils are fluent and secure with their basic skills. Use a simple assessment process to check on pupils' confidence and consistency in using the learning outlined in the Spring term. Analyse the results and use information to help focus the pre-teaching sessions, as needed, for the following term.
<ul style="list-style-type: none"> ➤ Measure length using a range of non-standard units and compare length. ➤ Begin to measure length in cm and m. ➤ Measure length using a range of non-standard units and compare height. ➤ Begin to measure height in cm and m. ➤ Measure weight using a range of non-standard units and compare mass/weight. ➤ Begin to measure mass in g and kg. 	<ul style="list-style-type: none"> ➤ Solve one step problems involving multiplication to 10, using concrete objects, pictorial representations and arrays ➤ Solve one step problems involving division to 10, using concrete objects, pictorial representations and arrays ➤ Solve one step problems involving multiplication to 20, using concrete objects, pictorial representations and arrays ➤ Solve one step problems involving division to 20, using concrete objects, pictorial representations and arrays 	<ul style="list-style-type: none"> ➤ Estimate what a quarter of a given object might be. ➤ Estimate what a quarter of a given shape might be. ➤ Use practical apparatus to show a quarter of a given number of objects. ➤ Show they understand that quarters are four equal parts. 	<ul style="list-style-type: none"> ➤ Know and use: left, right, top, middle, bottom, on top of, in front of, above, between, around, near, close, far, up, down, forwards, backwards, inside, outside ➤ Demonstrate full turn by moving body ➤ Demonstrate half turn ➤ Demonstrate quarter turn ➤ Demonstrate three-quarter turn ➤ Hold up left/right hand, as required ➤ Point to left/right, as required ➤ Describe position, direction, movement using vocabulary above 	<ul style="list-style-type: none"> ➤ Use the following vocabulary correctly in context: earlier, later. ➤ Compare the movements of two objects and describe which is slower, quicker. ➤ Begin to measure time in hours, minutes and seconds 	

YEAR 1 : SUMMER 1: Overview and Teaching Steps

WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
5 Number and place Value	5 Addition and Subtraction	9 Measures Capacity and Volume	3 Fractions	4 Geometry Position and Direction	5 Geometry 2D and 3D Shape
Read and write numbers from 1 – 20 in numerals and words	Add and subtract 1-digit and 2-digit numbers to 20, including zero.	Measure & begin to record the following: - Capacity & volume	Consolidate and start to link to numbers: Recognise, find and name a half as one of two equal parts and a quarter as being one of four equal parts of an object, shape or quantity.	Consolidate: Describe position, direction and movement, including half, quarter and three-quarter turns and link to shapes	Recognise & name common 3D shapes, including: 3D. e.g. cuboids (including cubes), pyramids, spheres.
<ul style="list-style-type: none"> ➤ Read all numbers to 5 in words ➤ Write all numbers to 5 in words ➤ Read and write all numbers to 10 in words ➤ Read and write all numbers to 10 in words ➤ Read and write all numbers to 20 in numbers without making reversals ➤ Read and write all numbers to 20 in words 	<p>Record in writing:</p> <ul style="list-style-type: none"> ➤ Add two 1-digit numbers to ten. ➤ Add two 1-digit numbers to 18. ➤ Add two numbers that equal any number up to 20, including zero. ➤ Subtract two 1-digit numbers. ➤ Subtract a 1-digit number from a 2-digit number up to 20. ➤ Subtract a 2-digit number from a 2-digit number up to 20. 	<ul style="list-style-type: none"> ➤ Measure volume using a range of non-standard units and compare. ➤ Measure capacity using a range of non-standard units and compare. ➤ Begin to measure capacity in ml/l 	<ul style="list-style-type: none"> ➤ Estimate what a half and a quarter of a given object might be. ➤ Estimate what a half and a quarter of a given shape might be. ➤ Use practical apparatus to show half and a quarter of a given number of objects. 	<ul style="list-style-type: none"> ➤ Use terms left and right in different contexts ➤ Remind them of moving bodies through full turns; half turns; quarter turns and three-quarter turns ➤ Use shape apparatus to show movements through these turns in practical setting ➤ Describe position, direction, movement using appropriate vocabulary 	<ul style="list-style-type: none"> ➤ Start with reminder about names of 2D shapes ➤ Identify and name cubes ➤ Identify and name pyramids ➤ Identify and name spheres ➤ Identify and name cylinders

YEAR 1 : SUMMER 2: Overview and Teaching Steps

WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
10 Measures Time	2 Multiplication and Division	5 Addition and Subtraction	11 Measures General	Revise: All aspects of Number	Consolidate and Assess
Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.	Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	Add and subtract 1-digit and 2-digit numbers to 20, including zero.	Consolidate: All learning involving length; weight and mass; capacity and volume; time and money	Consolidate: All learning involving place value; addition and subtraction and fractions	Start this week by revising the learning covered in Year 1 so as to ensure pupils are fluent and secure with their basic skills.
<ul style="list-style-type: none"> ➤ Tell o'clock times. ➤ Tell half past times. ➤ Draw hands on clock to show o'clock times. ➤ Draw hands on clock to show half past times. ➤ Know some key events associated with o'clock and half past times, e.g. lunchtime etc. 	<ul style="list-style-type: none"> ➤ Solve one step problems involving multiplication and division to 20, using concrete objects, pictorial representations and arrays 	<ul style="list-style-type: none"> ➤ Add and subtract a 1 and 2-digit number from a 1 and 2-digit number up to 20. 	<ul style="list-style-type: none"> ➤ Revise all aspects of learning associated with measurement in Year 1 	<ul style="list-style-type: none"> ➤ Revise all aspects of learning associated with number in Year 1 	<p>Use a simple assessment process to check on pupils' confidence and consistency in using the learning outlined in the Year 1.</p> <p>Analyse the results and use information to help focus the pre-teaching sessions, as needed, for the following year.</p>

Autumn 2: Week 1: Pre-Learning Task

The pre-learning task below could be used to assess pupils' starting points within this objective. It needs to be completed by all/ or some of the pupils in advance of the main teaching.

Name _____

Autumn 2: Week 1

Objective
Number and Place
Value 3

Count in multiples of 2s, 5s and 10s and read and write numbers to 100 in numerals

Finish off the sequences

10, 20, 30,

5, 10, 15,

40, 50, 60,

75, 80, 85,

2, 4, 6, 8,





Can you read the number **twelve** and write in the box?

24, 26, 28,

Can you read the number **fifty- nine** and write in the box?

Autumn 2: Week 1: Practice and Consolidation

Number and Place Value 3: Count in multiples of 2s, 5s and 10s and read and write numbers to 100 in numerals

Teaching Sequence	Oral and Mental Activities Examples:	Pencil and Paper Activities Examples:
<ul style="list-style-type: none"> ➤ Count in 10s to 50 ➤ Count in 10s to 100 ➤ Count in 2s to 20 ➤ Count in 2s to 50 ➤ Count in 2s to 100 ➤ Count in 5s to 50 ➤ Count in 5s to 100 ➤ Read and write all numerals accurately to 5 ➤ Read and write all numerals accurately to 10 ➤ Read and write all numerals accurately to 20 ➤ Read and write all numerals accurately to 50 ➤ Read and write all numerals accurately to 100 	<ul style="list-style-type: none"> • Chant as a group, starting with 0 sequence moving up in 10s, then 5s and then 2s. • Chant as a group, starting with 100 sequence moving down in 10s, then 5s and then 2s. • Chant as a group, starting with any number sequence moving up in 10s, then 5s and then 2s • Chant as a group, starting with any number sequence moving down in 10s, then 5s and then 2s • Use cards between 0 and 20, then 50 and then 100 and get pupils to call out their names rapidly. 	<p>Continue these sequences:</p> <p>0, 10, 20, 30 ____, ____, ____ 5, 15, 25, ____, ____, ____ 60, 50, 40, ____, ____, ____ 77, 67, 57, ____, ____, ____</p> <p>Continue these sequences:</p> <p>0, 2, 4, 6, ____, ____, ____ 17, 19, 21, ____, ____, ____ 73, 71, 69, ____, ____, ____</p> <p>0, 5, 10, 15, ____, ____, ____ 34, 39, 44, ____, ____, ____ 89, 84, 79, ____, ____, ____</p> <p>Explain what you notice.</p> <p>Write these as numbers:</p> <p>Thirty-seven  Forty-three  Fifty-five  Seventeen </p> <p>Explain what you notice.</p> <p>What is wrong with these sequences?</p> <p>15, 16, 17, 81, 19</p> <p>23, 24, 25, 62, 27</p>

Autumn 2: Week 1: Mastering this Objective – Deeper Understanding

Number and Place Value 3: Count in multiples of 2s, 5s and 10s and read and write numbers to 100 in numerals

Teaching Sequence

- Count in 10s to 50
- Count in 10s to 100
- Count in 2s to 20
- Count in 2s to 50
- Count in 2s to 100
- Count in 5s to 50
- Count in 5s to 100
- Read and write all numerals accurately to 5
- Read and write all numerals accurately to 10
- Read and write all numerals accurately to 20
- Read and write all numerals accurately to 50
- Read and write all numerals accurately to 100

If pupils have mastered this objective they will be able to complete these activities independently:

Explain what is wrong with these number sequences:

12, 13, 14, 16, 17

78, 77, 76, 74, 73

10, 20, 40, 50, 60

75, 70, 60, 55, 50

Which number comes before and after forty-eight?
Write them in numbers.

Which number comes ten before and ten after fifty-three?
Write them in numbers.

Which number comes five before and five after seventy-two?
Write them in numbers

Finish these sequences:

$$20 + 5 = 25$$

$$65 - 10 =$$

$$25 + 5 = 30$$

$$55 - 10 =$$

$$30 + 5 = 35$$

$$45 - 10 =$$

$$\text{---} + \text{---} = \text{---}$$

$$\text{---} - \text{---} =$$

Now carry on.

What do you notice?

Write the next number in numerals in these sequences:

Eighteen, Twenty, Twenty-two.....

Forty-four; forty nine, Fifty-four.....

Twenty-one; nineteen, seventeen.....

Autumn 2: Week 1: Working at greater depth

Number and Place Value 3: Count in multiples of 2s, 5s and 10s and read and write numbers to 100 in numerals

Teaching Sequence

- Count in 10s to 50
- Count in 10s to 100
- Count in 2s to 20
- Count in 2s to 50
- Count in 2s to 100
- Count in 5s to 50
- Count in 5s to 100
- Read and write all numerals accurately to 5
- Read and write all numerals accurately to 10
- Read and write all numerals accurately to 20
- Read and write all numerals accurately to 50
- Read and write all numerals accurately to 100

Activities for pupils working at greater depth:

Look at these cards:



Using the cards make up a 2-digit number that is:

- More than 10 apart;
- Less than 10 apart;
- More than 5 apart
- Less than 5 apart

Look at these number sequences:

17, 27, 37,

What will the sixth number be?

26, 31, 36, 41,

What will the eighth number be?

If I count forwards in 2s from 4, I will say 19. Yes or No?

If I count backwards in 5s from 27, I will say 12. Yes or No?

If I count forwards in 10s from 62, I will say 91. Yes or No?

If I count backwards in 5s from 47, I will say 13. Yes or No?

If 34 is the third number and 39 is the fourth number in a sequence what was the second number?

What will the sixth number be?

If 45 is the fourth number and 50 is the fifth number in a sequence. What will the seventh number be?

Autumn 2: Week 1: Assessment

The grid below helps to identify the journey pupils make towards mastering this objective. It can be used by the teacher to keep an on-going check on progress or more likely placed in the pupils books so that they can keep their own checks.

Number and Place Value 3: Count in multiples of 2s, 5s and 10s and read and write numbers to 100 in numerals

Me

My
Teacher

Can you read and write all numbers to 100?		
Can you read and write all 'tens' numbers from 0 to 100?		
Can you read and write all numbers to 20?		
Can you read and write all numbers to 10?		
Can you count in 5s to 100, starting at any number?		
Can you count in 2s to 100, starting at any number?		
Can you count in 2s to 50, starting at any number?		
Can you count in 2s to 20, starting at any number?		
Can you count in 10s to 100, starting at any number?		
Can you count in 10s to 50, starting at any number?		
Can you count from 1 to 100, starting at any number?		

Spring 2: Week 3: Pre-Learning Task

The pre-learning task below could be used to assess pupils' starting points within this objective. It needs to be completed by all/ or some of the pupils in advance of the main teaching.

Name

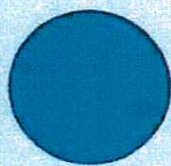
Spring 2 Week 3

Objective:
Fractions

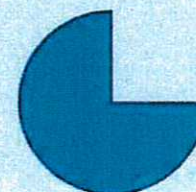
Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity

Work out the answers

Can you shade in a quarter of these 2 shapes?



How much of the circle is missing?



What is a quarter of these 2 numbers?

12



8



How much of 16 is 4?



Spring 2: Week 3: Practice and Consolidation

Fractions 2: Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity

Teaching Sequence

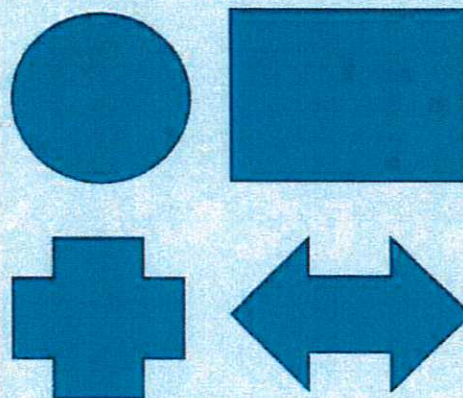
- Estimate what a quarter of a given object might be.
- Estimate what a quarter of a given shape might be.
- Use practical apparatus to show a quarter of a given number of objects.
- Show they understand that quarters are four equal parts.

Oral and Mental Activities Examples:

- Remind pupils of the term half and find half of various items to re-inforce the concept of half.
- Show what a quarter is by using paper and folding twice, etc.
- Now share objects by 4 and explain that one set is a quarter of the original.

Pencil and Paper Activities Examples:

Shade a quarter of the following shapes:



If 8 is half of a number.

What was the original number?

How much will a quarter of this number be?

Find a quarter of these numbers:

4 12

16 20

If 3 is a quarter of a given number, how much is the original number?

If 5 is a quarter of a given number, how much is the original number?

Spring 2: Week 3: Mastering this Objective – Deeper Understanding

Fractions 2: Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity

Teaching Sequence

- Estimate what a quarter of a given object might be.
- Estimate what a quarter of a given shape might be.
- Use practical apparatus to show a quarter of a given number of objects.
- Show they understand that quarters are four equal parts.

If pupils have mastered this objective they will be able to complete these activities independently:

If 4 is a quarter of a number, how much was the number in the first place?

If I take a quarter of the number away I am left with 12. How much was the number in the first place?

If half of a number is 8, what will a quarter be?

Yes or No

- If 3 children share 6 apples between them, then they will all have 1 apple each.

Yes / No

- If 4 children each have a quarter of a cake. Then there will be no cake left.

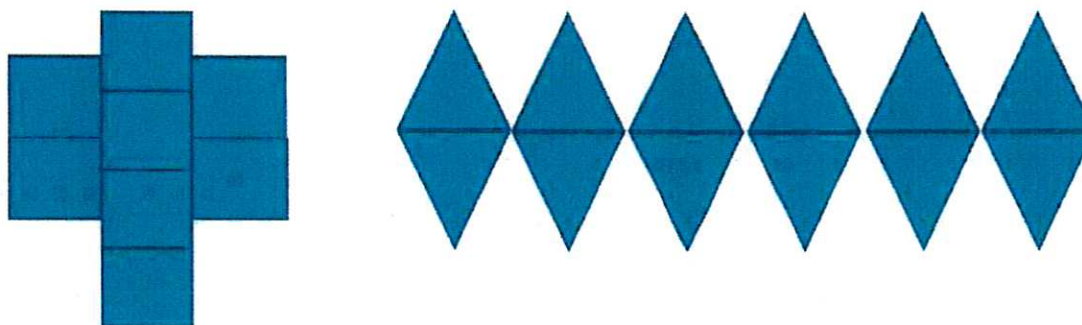
Yes / No

- Can you equally share one packet of sweets and have half each?

Yes / No

- If I give 3 children a quarter of all the sweets then there will be none left.

Yes / No



Shade in a quarter of these shapes.

Spring 2: Week 3: Working at greater depth

Fractions 2: Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity

Teaching Sequence

- Estimate what a quarter of a given object might be.
- Estimate what a quarter of a given shape might be.
- Use practical apparatus to show a quarter of a given number of objects.
- Show they understand that quarters are four equal parts.

Activities for pupils working at greater depth:

Taking a quarter away

If I take a quarter of the number away I am left with 12.
How much was the number in the first place?

Ahmed's Cars

Harry went to play with Ahmed.
Ahmed had 10 cars and he gave Harry half of them.
Harry already had 2 cars.
How many cars did Harry have to play with?

A bowl of fruit holds 20 pieces of fruit.

It had 3 bananas; 5 apples; 6 oranges; 4 pears and 2 kiwi fruits.

If you wanted a quarter of the bowl to hold bananas, how many bananas would you need?
Which fruit would you take out?

Josh and Francesca were given a bowl of smarties.

There were 4 colours altogether.

A quarter of all the smarties were red, 7 were yellow, 5 were blue, and 3 were green.
How many smarties were there altogether?

Spring 2: Week 3: Assessment

The grid below helps to identify the journey pupils make towards mastering this objective. It can be used by the teacher to keep an on-going check on progress or more likely placed in the pupils books so that they can keep their own checks.

Fractions 2: Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity

Me

My
Teacher

	Do you recognise that if you take a quarter away then you are left with three-quarters?	
	Do you know that a quarter is one of four equal parts of a shape or a number?	
	Can you work out what a quarter of a number up to 20 is?	
	Can you colour in a quarter of a given shape?	



Summer 1: Week 5: Pre-Learning Task

The pre-learning task below could be used to assess pupils' starting points within this objective. It needs to be completed by all/ or some of the pupils in advance of the main teaching.

Name

Summer 1 Week 5

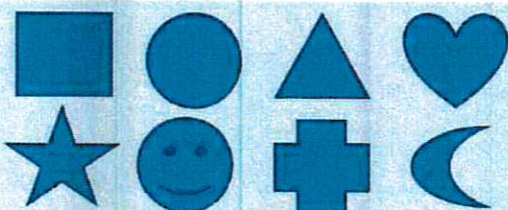
Objective:

Geometry 4:
Position and Direction

Consolidate:

Describe position, direction and movement, including half, quarter and three-quarter turns and link to shapes

Work out the answers



Which shape is to the left of the circle?

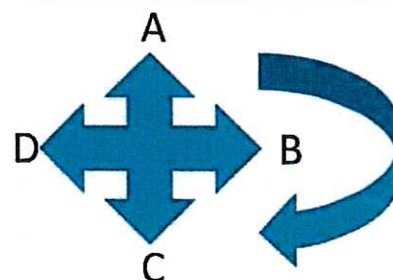
Which shape is above the moon?

Which shape is below the square?

Which shape is second from the left on the bottom row?



If the arrow makes half a turn, what will it look like?



If you start by facing A and make three-quarters of a turn to the right, which letter will you be facing?

Summer 1: Week 5: Practice and Consolidation

Geometry: Consolidate:

Describe position, direction and movement, including half, quarter and three-quarter turns and link to shapes

Teaching Sequence

- Use terms left and right in different contexts
- Remind them of moving bodies through full turns; half turns; quarter turns and three-quarter turns
- Use shape apparatus to show movements through these turns in practical setting
- Describe position, direction, movement using appropriate vocabulary

Oral and Mental Activities

Examples:

Revise turns:

- Pupils stand up and turn through half a turn and then a full turn.
- Pupils to revise turning a quarter turn to the left or to the right.
- Then, work on three quarter turns to the left and to the right.
- Ask questions about various objects being to the left or to the right.
- Use practical equipment set out in a circle around a person, get them to turn and see which object they face.

Pencil and Paper Activities

Examples:

Using shapes:



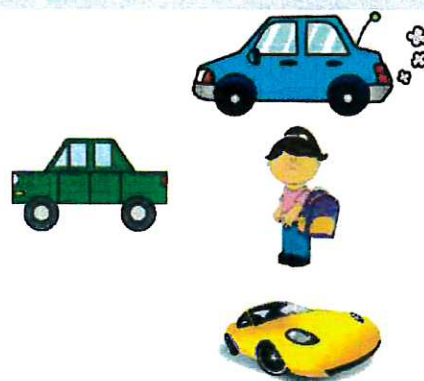
Move each of these shapes through:

Half a turn;

A quarter turn to the left or to the right;

A three-quarter turn

What do they notice?



Betty faces the green car.
Which car will she face if she makes half a turn?
Which car will she face if she makes a quarter turn to the left?
What about half a turn to the right?

Summer 1: Week 5: Mastering this Objective – Deeper Understanding

Geometry: Consolidate:

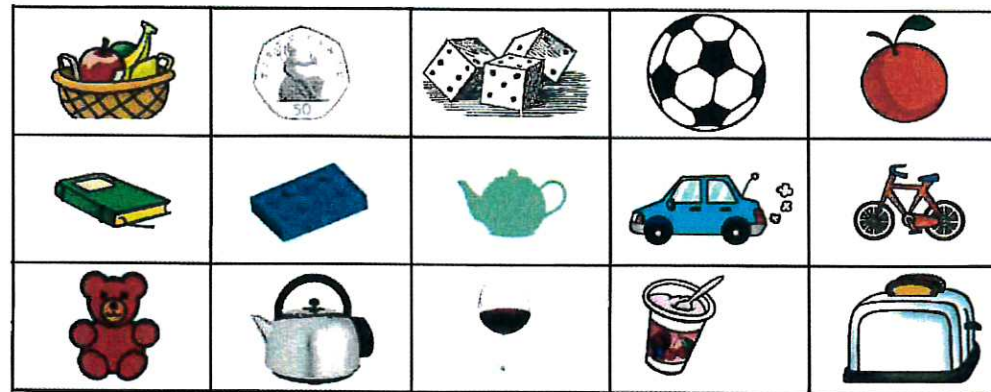
Describe position, direction and movement, including half, quarter and three-quarter turns and link to shapes

Teaching Sequence

- Use terms left and right in different contexts
- Remind them of moving bodies through full turns; half turns; quarter turns and three-quarter turns
- Use shape apparatus to show movements through these turns in practical setting
- Describe position, direction, movement using appropriate vocabulary

If pupils have mastered this objective they will be able to complete these activities independently:

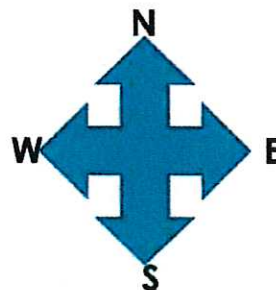
Identify the position of each object. Top, middle or bottom, first, second, third, fourth or fifth. To the left or right.



On which row is:
The bicycle
The teddy
The toaster
The dice

Which column from the left is:
The lego brick
The book
The yogurt

On which row and column is the car; the football; and the fruit bowl.



Associate the turns with North; East, South and West.

Start by saying that someone is facing the North (or East, South or West). Then ask them to make a range of turns and record their outcomes.

Summer 1: Week 5: Working at Greater Depth

Geometry: Consolidate:

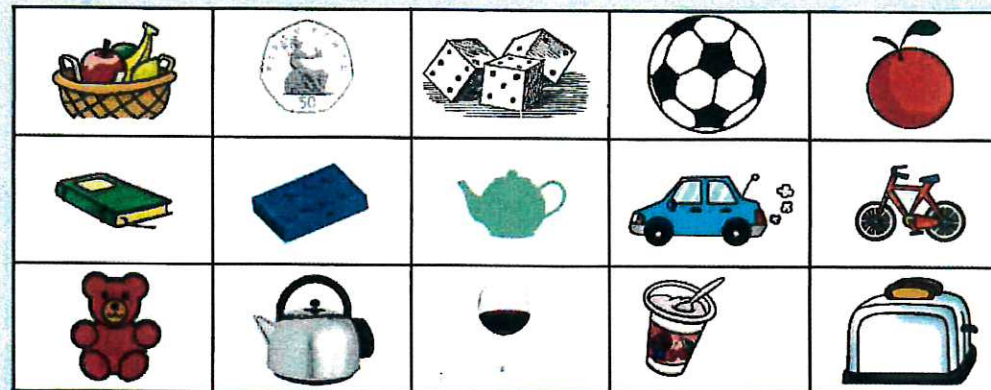
Describe position, direction and movement, including half, quarter and three-quarter turns and link to shapes

Teaching Sequence

- Use terms left and right in different contexts
- Remind them of moving bodies through full turns; half turns; quarter turns and three-quarter turns
- Use shape apparatus to show movements through these turns in practical setting
- Describe position, direction, movement using appropriate vocabulary

Activities for pupils working at greater depth:

Identify the position of each object. Top, middle or bottom, first, second, third, fourth or fifth. To the left or right.



Your partner thinks of an object from the grid.

You can ask your partner up to 4 questions, using the language above.

Your partner has to answer with a yes or no.

Pupils to set up their own objects in a circle and invite pupils to go into the middle and then ask them to turn using the terms: quarter; half; full; three-quarters; left and right.

On the school playground or the school field, pupils mark out North, East, South and West. Pupils to instruct others to make turns. This time the pupils describe what they will see when they make a turn. The partner needs then to respond by saying that they turned a quarter to the left, etc.

Summer 1: Week 5: Assessment (this re-enforces the learning carried out in Spring 2 Week 4)

The grid below helps to identify the journey pupils make towards mastering this objective. It can be used by the teacher to keep an on-going check on progress or more likely placed in the pupils books so that they can keep their own checks.

Geometry: Position and Direction: Describe position, direction and movement, including half, quarter and three-quarter turns

	Me	My Teacher
Can you use the terms 'to the left of..' or 'to the right of...' accurately?		
Can you use the terms behind, in front of, and in between accurately?		
Can you turn to the right or left?		
Can you hold out your right or left hand?		
Can you turn your body through three-quarters of a turn?		
Can you turn your body through a quarter of a turn?		
Can you turn your body through half a turn?		
Can you turn your body through one full turn?		

