

SEND Assessment - Number & Geometry

Blackpool Council



Introduction

This Mathematics Assessment Booklet covers Assessment of a child's developmental stage from 8-20 months up to the national standard of a year 6 child in Number and Geometry. Assessment of the child should be ongoing throughout the year. We recommend that you underline the statement when the child has encountered it but still needs development in this area. Once the child has achieved the statement, it can be highlighted (it would be advisable for each year group to use a different colour to highlight). Please note this assessment is to provide ongoing assessment of a child's progress it is not to be used as a curriculum.

When the pupil records a 'secure' in number, they have achieved that standard. However, please be mindful that they will still need to work on statements not highlighted, so please refer back to these when you assess and plan throughout the year.

Key

Milestone	Age Equivalent
Milestone 1	8-20 months
Milestone 2	16-26 months
Milestone 3	22-36 months
Milestone 4	30-50 months
Milestone 5	40-60 months
Milestone 6	Bridging Reception into Year 1
Milestone 7	Bridging Reception into Year 1
Milestone 8	Bridging Reception into Year 1
Milestone 9	National Standard for Year 1
Milestone 10	National Standard for Year 2
Milestone 11	National Standard for Year 3
Milestone 12	National Standard for Year 4
Milestone 13	National Standard for Year 5
Milestone 14	National Standard for Year 6

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Number Milestone 1	
<ul style="list-style-type: none"> • Pupil can recognise familiar routines • Pupil can respond if routine is changed • Pupil picks up and puts down single objects • Pupil says gone or all gone appropriately • Pupil collects objects that interest them • Pupil enjoys helping adult count objects • Pupil uses objects with multiple parts i.e. train set 	<ul style="list-style-type: none"> • Pupil makes choices from a range of 2 • Pupil holds 2 objects at a time • Pupil puts down an object in order to pick up another
Tracking Information Number Milestone 1	
Encountering	1-2 statements
Emerging	3-5 statements
Developing	6-9 statements
Secure	10-13 statements
Number Summary	
Date:	Assessment Level:

Number Milestone 2	
<ul style="list-style-type: none"> • Pupil begins to place objects in groups • Pupil follows counting sequence • Pupil enjoys helping to count objects • Pupil says some random numbers when counting • Pupil picks up more than one object when asked for 2 	<ul style="list-style-type: none"> • Pupil begins to line up objects • Pupil assists with one to one matching activity i.e. setting table • Pupil responds to 'give me some shells' • Pupil responds to 'give me some more shells' • Pupil uses term 'one' appropriately • Pupil uses term 'lots' appropriately
<ul style="list-style-type: none"> • Pupil enjoys number rhymes • Pupil joins in actions in number rhymes • Pupil joins in the sound pattern of rhymes 	
Tracking Information Number Milestone 2	
Encountering	1-3 statements
Emerging	4-6 statements
Developing	7-9 statements
Secure	10-14 statements
Number Summary	
Date:	Assessment Level:

Number Milestone 3		
<ul style="list-style-type: none"> • Pupil watches finger games • Pupil joins in simple finger games • Pupil joins in number rhyme • Pupil joins in actions with some accuracy • Pupil plays with shopping • Pupil threads beads on rod • Pupil places objects in a line • Pupil asks for 1 more • Pupil asks for 2 more 	<ul style="list-style-type: none"> • Pupil 'gets' another one • Pupil begins to match 2 equal sets • Pupil selects objects from a choice of 3 • Pupil contracts quantities • Pupil uses the term 'more' • Pupil knows groups change when you add or remove things • Pupil builds a tower of 4 bricks 	<ul style="list-style-type: none"> • Pupil joins in rote counting to 5 • Pupil counts to 5 not always correctly • Pupil copies 1 to 3 claps correctly • Pupil points to objects as they count • Pupil attempts to count 3 objects • Pupil counts real objects to 3 • Pupil plays games using dice with 1 to 3 spots • Pupil uses counting in 'play' situations

Tracking Information Number Milestone 3	
Encountering	1-6 statements
Emerging	7-12 statements
Developing	13-19 statements
Secure	20-24 statements
Number Summary	
Date:	Assessment Level:

Number Milestone 4		
<ul style="list-style-type: none"> • Pupil uses some number language spontaneously • Pupil enjoys joining in number rhymes and songs • Pupil uses mathematical language in play • Pupil knows some simple number rhymes • Pupil recognises a group of 2 objects • Pupil recognises a group of 3 objects • Pupil arranges objects into groups • Pupil compares two groups of objects • Pupil says when two groups have the same number of objects • Pupil picks up one brick on request • Pupil picks up 2 bricks on request • Pupil picks up one more on request • Pupil copies claps to 5 • Pupil knows a variety of things can be counted 	<ul style="list-style-type: none"> • Pupil separates a group of three or four or five objects in different ways • Pupil matches object to object • Pupil gives each drink a straw • Pupil gives object to each person • Pupil begins to count objects when asked 'how many...' • Pupil knows numbers, identify the number of objects in a set • Pupil is aware of some of the properties of 2,3 and 4 • Pupil counts to 5 correctly • Pupil counts to 8 consistently • Pupil joins in rote counting to 10 • Pupil rote counts to 10 consistently 	<ul style="list-style-type: none"> • Pupil counts objects to 5 • Pupil puts out objects to 5 • Pupil gives numerals to 5 when asked • Pupil names numerals to 5 • Pupil sequences numerals to 5 • Pupil shows an awareness of numerals • Pupil reads numbers to 5 on computer screen • Pupil matches numerals to 5 on computer • Pupil inputs numbers to 5 on computer correctly • Pupil presses numbers of telephone saying numbers (not always correctly) • Pupil adds 1 more objects and count how many to 5 • Pupil removes 1 object and counts how many now to 5
Tracking Information Number Milestone 4		
Encountering	1-9 statements	
Emerging	10-19 statements	
Developing	20-29 statements	
Secure	30-37 statements	
Number Summary		
Date:	Assessment Level:	

Number Milestone 5		
<ul style="list-style-type: none"> • Pupil recognises numerals 1-20 • Pupil selects the correct numeral to represent 1-20 objects • Pupil counts an irregular arrangement of up to 20 objects • Pupil can say the number after any numbers up to 20 • Pupil can say and use the number names in order in familiar contexts • Pupil can count reliably up to 20 everyday objects • Pupil recognises error in counting patterns to 20 • Pupil orders numerals to 20 • Pupil writes number to 10 • Pupil can use ordinal numbers 1st, 2nd, 3rd 	<ul style="list-style-type: none"> • Pupil finds the total number of items in two groups by counting all of them • Pupil counts on from a given number to 20 • Pupil counts back from a given number 20 or less • Pupil uses one to one matching to solve problems i.e. are there enough? • Pupil uses numbers to 10 to record • Pupil uses developing mathematical ideas and methods to solve problems • Pupil compares two quantities to 20: · larger, smaller, fewer, more • From a given number to 20 pupil can find: · Number before · 1 more · Number after · 1 less 	<ul style="list-style-type: none"> • Pupil uses language such as 'more' or 'less' to compare two numbers • Pupil uses objects to add two single digit numbers • Pupil uses objects to 10 to take away given amounts • Pupil begin to do addition by counting on • Pupil subtracts two single digit numbers • Pupil begins to relate addition to combining two groups of objects • Pupil begins to relate subtraction to 'taking away' • Pupil can double a single digit number • Pupil can halve a number to 20 • Pupil can share objects between a given number

Tracking Information Number Milestone 5	
Encountering	1-7 statements
Emerging	8-14 statements
Developing	15-22 statements
Secure	23-28 statements
Number Summary	
Date:	Assessment Level:

Number Milestone 6	
Number	Place Value
<ul style="list-style-type: none"> • Pupil can record legibly numerals 1-5, then 1-10 or use alternative representation as appropriate • Pupil can recognise the numerals 1-10 in familiar contexts and then 1-20 • Pupil can recognise and say/sign or indicate teen numbers correctly • Pupil can relate numerals 1-10 to sets of objects and then 1-20 • Pupil can count to at least 20 objects accurately 1 by 1 • Pupil can reliably count up to 10 objects that move or cannot be seen (e.g. bubbles, runners in a race, objects being dropped in a tin) • Pupil can accurately count out a small number of objects from a larger group (e.g. count out twelve pieces of Lego from a box of Lego) • Pupil can apply counting skills 0-20 to play simple games and use in role play/life skills • Pupil understands that the order in which number of items are counted does not matter but each object in a collection must be counted once • Pupil can subitise up to 3 objects e.g. recognise dice patterns, Numicon arrays • Pupil can independently rote count up to 20 • Pupil can count back from 10 • Pupil can count objects in different arrangements • Pupil realises the last number spoken tells you how many there are • Pupil realises the count is not dependent on the object or size 	<ul style="list-style-type: none"> • Pupil can order number to 10 then 20 e.g. place number 1-10 on a number line • Pupil can compare two or more numbers up to the value of 10 then 20 • Pupil can begin to use in context the languages of more/less, bigger/smaller, the same • Pupil knows the number that is 1 more or 1 less than any given number to 10 then 20
Addition and Subtraction	Multiplication and Division
<ul style="list-style-type: none"> • Pupil can make 2 equal sets of objects • Pupil can compare two amounts to see which is greater or less • Pupil can begin to realise that combining objects gives you a greater amount and taking away gives you a smaller amount • Pupil can begin to use own methods to record and combine two sets • In practical context, pupil can record simple addition problems up to 6 • Pupil can partition and combine sets of objects from 1-6 	<ul style="list-style-type: none"> • Pupil can group and share up to 6 objects in practical situations • Pupil can consolidate one to one correspondence in practical situations • Pupil can join in practical sharing activities • Pupil begins to understand the concept of 'fair' sharing
Fractions	Statistics
<ul style="list-style-type: none"> • Pupil can join in sharing activities 	<ul style="list-style-type: none"> • Pupil can sort and classify objects when given a criteria i.e. colour or size
Tracking Information Number Milestone 6	
Encountering	1-7 statements
Emerging	8- 16 statements
Developing	17 - 24 statements
Secure	25 - 31 statements
Number Summary	
Date:	Assessment Level:

Number Milestone 7	
Number	Place Value
<ul style="list-style-type: none"> • Pupil can initiate counting from zero • Pupil can independently count from 1, then 0 to 50 • Pupil can start from any given whole number and count on to 20 • Pupil can count in tens to 100 and count in twos to 20 • Pupil can count backwards from 20 to 0 • Pupil can notice some patterns when counting • Pupil can subitise up to 5 objects • Pupil can automatically recognise pictorial representations of number 1-10 • Pupil can count at least 30 objects one by one • Pupil recognises numerals 1-30 in different contexts • Pupil can record legibly numerals 1-20 or use alternative representations as appropriate • Pupil can estimate with a degree of accuracy to 7 • Pupil can check estimate by counting 	<ul style="list-style-type: none"> • Pupil can recognise 0 as an empty set • Pupil can order number 0-30 • Pupil knows the number that is one more or one less than any given number to 30 • Pupil shows early understanding of place value e.g. uses practical apparatus to represent teen numbers • Pupil can recognise and name 'ty' number and relate to sets of objects • Pupil can demonstrate an understanding that although teen numbers are spoken with the number of units first i.e. 'fourteen' they are written with the tens first i.e. '14' • Pupil can find missing numbers to 20 • Pupil can order 3 non-sequential numbers to 20 in order • Pupil can identify missing numbers on a number line
Addition and Subtraction	Multiplication and Division
<ul style="list-style-type: none"> • Pupil can use the equal sign to represent equivalence between two equal sets of objects • Pupil can use the language related to addition and subtraction e.g. more than, less than • Pupil knows that putting two groups together makes a greater amount and removing objects from a group makes a smaller amount • Pupil begins to make a plausible estimation and check when using addition and subtraction to 6 • Pupil can combine two small sets of objects or visual aids to 6 • In practical context, pupil can record simple addition and subtraction problems to 6 • Pupil can use number stories related to numbers bonds to 5 • Pupil can use objects to show number bonds to 5 	<ul style="list-style-type: none"> • Pupil begins to understand the language 'lots of', 'groups of' and 'sets of' • Pupil can group up to 6 objects into sets of one, two or three • Pupil can share up to 6 objects equally between 1, 2, and 3 sets and recognise that each quantity is the same • Pupil demonstrates an understanding of 'fair sharing'
Fractions	Statistics
<ul style="list-style-type: none"> • Pupil can recognise when quantities are the same 	<ul style="list-style-type: none"> • Pupil can sort and classify objects with a given criteria e.g. type of coin/transport/animal etc
Tracking Information Number Milestone 7	
Encountering	1-9 statements
Emerging	10- 18 statements
Developing	19 – 28 statements
Secure	29 - 36 statements
Number Summary	

Date:	Assessment Level:

Number Milestone 8	
Number	Place Value
<ul style="list-style-type: none"> • Pupil can independently count to 100 and count back from 100 • Pupil can recognise and identify the patterns when reciting number above 20 • Pupil can recognise continuity in a range of representations (a+a) • Pupil understands the relationship between original and cardinal numbers in practical activities 	<ul style="list-style-type: none"> • Pupil can group in tens and ones when counting larger sets of objects • Pupil is able to compare numerals and is able to say which is smaller/bigger • Pupil can represent 2 digit number using apparatus • Pupil can give or say one more or one less up to 100, including numbers one more or less than a multiple of 10 • Pupil understands that '-ty' signifies 'tens' and that 'twenty' is worth two tens and 'thirty' is worth three tens etc • Pupil can recognise multiples of ten as 'landmark' numbers • Pupil can correctly identify the multiples of ten that follows any 'ty' nine number to 100 e.g. 49 is following by 50 when counting in ones • Pupil identifies numbers between two given numbers to 20
Addition and Subtraction	Multiplication and Division
<ul style="list-style-type: none"> • Pupil can make two equal sets of objects • Pupil can compare two amounts to see which is greater or less • Pupil can make a plausible estimation and check when using addition and subtraction to 10 • Pupil can combine two small sets of objects or visual aids up to 10 by counting on • Within 10, pupil can remove objects from a given set and accurately count how many are left • Pupil begins to recognise and use the symbols '+', '-' and '=' • Pupil can mentally recall number bonds to 5 • Pupil can use objects to show number bonds to 10 and relates subtraction facts e.g. 7 and 3 equals 10; 10 takeaway 3 equals 7 • Pupil can add 10 to a single digit number • Pupil can add 2 numbers together 	<ul style="list-style-type: none"> • Pupil can group and share up to 10 objects in practical situations • Pupil can use language such as 'lots of', 'groups of' and 'sets of' • Pupil can use the language such as 'sharing', 'equal', 'same', 'fair' • Pupil can make sets of 2s and count how many there are (in 2s) up to 10 e.g. How many ears do 5 people have? How many wheels on 2 bikes?
Fractions	Statistics
<ul style="list-style-type: none"> • Pupil understands that a whole object can be split or shared equally 	<ul style="list-style-type: none"> • Pupil begins to group objects into sets according to simple properties • Pupil can answer simple questions by counting the number of objects in a category
Tracking Information Number Milestone 8	
Encountering	1-8 statements
Emerging	9- 16 statements
Developing	17 – 23 statements
Secure	24 - 29 statements
Number Summary	
Date:	Assessment Level:

Number Milestone 9	
Number	Place Value
<ul style="list-style-type: none"> • Pupil can count to & across 100, forward and backwards, beginning with 0 or 1, or from any given number • Pupil can count, read and write numbers to 100 in numerals • Pupil can count in multiples of twos, fives and tens • Pupil can read and write numbers from 1 to 20 in numerals and words 	<ul style="list-style-type: none"> • Pupil can identify one more and one less when given a number • Pupil can identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
Addition and Subtraction	Multiplication and Division
<ul style="list-style-type: none"> • Pupil is able to understand the operations of addition and subtraction and the relationship between them • Pupil can read, write and interpret mathematical statements involving addition (+), subtraction (-), and equals (=) signs • Pupil can represent and use number bonds and related subtraction facts within 20 • Pupil can add and subtract one-digit and two-digit numbers to 20, including 0 • Pupil can solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = _ - 9$ 	<ul style="list-style-type: none"> • Pupil recalls multiplication facts for the 10 multiplication table and uses them to derive division facts, and count in steps of 10 to answer questions • Pupil can solve simple one-step problems involving grouping and sharing, using objects, pictorial representations and arrays with the support of the teacher
Fractions	Statistics
<ul style="list-style-type: none"> • Pupil can recognise, find and name a half as one of two equal parts of an object, shape or quantity • Pupil can recognise, find and name a quarter as one of four equal parts of an object, shape or quantity 	<ul style="list-style-type: none"> • Pupil can interpret and construct simple pictograms where the picture is worth 1 unit • Pupil can interpret simple tally charts and block diagrams • Pupil can ask and answer questions that require counting the number of objects in each category
Tracking Information Number Milestone 9	
Encountering	1-5 statements
Emerging	6- 10 statements
Developing	11 – 14 statements
Secure	15 - 18 statements
Number Summary	
Date:	Assessment Level:

Number Milestone 10	
Number	Place Value
<ul style="list-style-type: none"> Pupil can read and write numbers to at least 100 in numerals and words Pupil can count in steps of 2, 3 and 5 from 0, and in tens from any number, forward and backward 	<ul style="list-style-type: none"> Pupil can use place value to compare and order numbers up to 100 sometimes using less than (<), equals (=) and greater than (>) signs correctly Pupil can identify and represent numbers using different representations including the number line Pupil can reason about place value and number facts and use them to solve problems Pupil can recognise the place value of each digit in a two-digit number (tens, ones)
Addition and Subtraction	Multiplication and Division
<ul style="list-style-type: none"> Pupil can solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measure applying their increasing knowledge of mental and written methods Pupil can recall and use addition and subtraction facts for all numbers up to 20 fluently and derive and use related facts to 100 Pupil can add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones a two-digit number and tens two-digit numbers adding three one-digit numbers Pupil can show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot Pupil recognises and uses the inverse relationship between addition and subtraction and uses this to check calculations and solve missing number problems 	<ul style="list-style-type: none"> Pupil can recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers Pupil can calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs Pupil can show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot Pupil can solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts
Fractions	Statistics
<ul style="list-style-type: none"> Pupil can recognise, find, name and write fractions of a half of a length, shape, set of objects or quantity Pupil can write simple fractions for examples, $\frac{1}{2}$ of 6 = 3, $\frac{1}{3}$ of 9 = 3 etc Pupil can recognise the equivalence of $\frac{1}{2}$ and $\frac{2}{4}$ and so on 	<ul style="list-style-type: none"> Pupil can interpret and construct simple pictograms, tally charts, block diagrams and simple tables Pupil can ask and answer simple questions that require sorting the categories by quantity, totalling and comparing simple categorical data
Tracking Information Number Milestone 10	
Encountering	1-5 statements
Emerging	6- 10 statements
Developing	11 – 15 statements
Secure	16 - 20 statements
Number Summary	
Date:	Assessment Level:

Number Milestone 11	
Number	Place Value
<ul style="list-style-type: none"> • Pupil can read and write numbers up to 1000 in numbers and words • Pupil can count from 0 in multiples of 4, 8, 50 and 100 • Pupil can solve number problems and practical problems involving these ideas 	<ul style="list-style-type: none"> • Pupil can find 10 or 100 more or less than a given number • Pupil can recognise the place value of each digit in a three digit number (hundreds, tens and ones) • Pupil can compare and order numbers up to 1000 using less than (<), greater than (>) and equals to (=) • Pupil can identify, represent and estimate numbers using different representations
Addition and Subtraction	Multiplication and Division
<ul style="list-style-type: none"> • Pupil can add and subtract numbers mentally including: · a three digit number and one · a three digit number and tens · a three digit number and hundreds • Pupil can add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction • Pupil can solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction • Pupil can add and subtract fractions with the same denominator within a whole number e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ 	<ul style="list-style-type: none"> • Pupil can recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables • Pupil can write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental methods and progressing to formal written methods • Pupil can solve problems, including missing number problems, involving \times and \div, including positive integer scaling problems in which 'n' objects are connected to 'm' objects
Fractions	Statistics
<ul style="list-style-type: none"> • Pupil can count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 • Pupil recognises, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators • Pupil can recognise and show, using diagrams, equivalent fractions with small denominators • Pupil can compare and order unit fractions and fractions with the same denominators • Pupil can solve problems that involve all of the above 	<ul style="list-style-type: none"> • Pupil can interpret and present data using bar charts, pictograms and tables • Pupil can solve one-step and two-step questions e.g. 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables
Tracking Information Number Milestone 11	
Encountering	1-5 statements
Emerging	6- 11 statements
Developing	12 – 17 statements
Secure	18 - 21 statements
Number Summary	
Date:	Assessment Level:

Number Milestone 12	
Number	Place Value
<ul style="list-style-type: none"> Pupil can read and write numbers to beyond 1000 in numbers and words Pupil can count in multiples of 6, 7, 9, 25 and 1000 Pupil can count backwards through 0 to include negative numbers Pupil can solve number and practical problems that involve all of these ideas, and with increasingly large positive numbers Pupil can read Roman numerals to 100 (I to C) and know that over time, the numeral system was changed to include the concept of 0 and place value 	<ul style="list-style-type: none"> Pupil can find 1000 more or less than any given number Pupil can recognise the value of each digit in a 4-digit number (Th, H, T, U) Pupil can order and compare numbers beyond 1000 using less than (<), equals (=) and greater than (>) signs Pupil can identify, represent and estimate numbers using different representations Pupil can round any number to the nearest 10, 100, or 1000
Addition and Subtraction	Multiplication and Division
<ul style="list-style-type: none"> Pupil can add and subtract numbers with up to 4 digits, using formal written methods of columnar addition and subtraction Pupil can solve addition and subtraction complex 2-step in context, deciding which operation and method to use and explain why Pupil can add and subtract fractions with the same denominator Pupil can solve simple measure and money problems involving fractions and decimals to two decimal places Pupil can solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number 	<ul style="list-style-type: none"> Pupil can recall multiplication and division facts for multiplication tables up to 12x12 Pupil can use place value, and known and derived facts, to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1, multiplying together 3 numbers e.g. $600 \div 3 = 200$ can be derived from $2 \times 3 = 6$ and 3×60 can be answered using $6 \times 3 \times 10 = 180$ Pupil can use factor pairs and commutativity in mental calculations e.g. $4 \times 3 = 12$ $4 \times 5 = 20$ $3 \times 5 = 15$ $4 = 60$ Pupil can multiply 2-digit and 3-digit numbers by a 1-digit number using formal written methods Pupil can solve problems involving multiplying and adding, including using the distributive law ($39 \times 7 = 30 \times 7 + 9 \times 7$) to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as 'n' objects are connected to 'm' objects Pupil can estimate and use inverse operations to check answers to calculations
Fractions	Statistics
<ul style="list-style-type: none"> Pupil can recognise and show, using diagrams, families of common equivalent fractions Pupil can count up and down in hundredths and recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 Pupil can recognise and write decimal equivalents of any number of tenths and hundredths Pupil can recognise and write decimal equivalents to $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{3}{4}$ Pupil can round decimals with one decimal place to the nearest whole number Pupil can compare numbers with the same number of decimal places up to 2 decimal places Pupil can find the effect of dividing a one or two digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths 	<ul style="list-style-type: none"> Pupil can interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs using a greater range of scales in their representations Pupil can solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs
Tracking Information Number Milestone 12	
Encountering	1-8 statements
Emerging	9- 16 statements
Developing	17 – 23 statements
Secure	24 - 30 statements
Number Summary	

Date:	Assessment Level:

Number Milestone 13	
Number and Place Value	
<ul style="list-style-type: none"> Pupil can count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 Pupil can interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero Pupil can round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000, 100 000 Pupil can solve number problems and practical problems that involve all of the above Pupil can read Roman numerals to 1000 (M) and recognise years written in Roman Numerals Pupil can read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit 	
Addition and Subtraction	Multiplication and Division
<ul style="list-style-type: none"> Pupil can add and subtract number mentally with increasingly large numbers Pupil can add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Pupil can solve addition and subtraction multi-step problems in contexts, deciding which operation and methods to use and why Pupil can add and subtract fractions with the same denominator that are multiples of the same number Pupil can solve problems involving number up to three decimal places 	<ul style="list-style-type: none"> Pupil can recall multiplication and division facts for multiplication tables up to 12x12 Pupil can use place value and known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1, multiplying together 3 numbers e.g. $600 \div 3 = 200$ can be derived from $2 \times 3 = 6$ and $3 \times 60 = 180$ Pupil can use factor pairs and commutativity in mental calculations e.g. $4 \times 3 = 12$ $5 \times 6 = 30$ $4 \times 5 = 20$ $3 \times 5 = 15$ $4 = 60$ Pupil can multiply 2-digit and 3-digit numbers by a 1-digit number using formal written methods Pupil can solve problems involving multiplying and adding, including using the distributive law ($39 \times 7 = 30 \times 7 + 9 \times 7$) to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as 'n' objects are connected to 'm' objects Pupil can estimate and use inverse operations to check answers to calculations
Fractions	Statistics
<ul style="list-style-type: none"> Pupil can compare and order fractions whose denominators are all multiples of the same number Pupil can identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths Pupil recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number e.g. $2/5 + 4/5 = 6/5 = 1$ and $1/5$ Pupil can read and write decimal numbers as fractions e.g. $0.71 = 71/100$ Pupil recognises the percent (%) and understands percent relates to 'number of parts per hundred', and writes percentages as a fraction with denominator 100, and as a decimal Pupil can recognise and use thousandths and relate them to tenths, hundredths and decimal place equivalents Pupil can round decimals with two decimal places to the nearest whole number and to one decimal place Pupil can read, write, order and compare numbers with up to three decimal places 	<ul style="list-style-type: none"> Pupil can solve comparison, sum and difference problems using information presented in a line graph Pupil can compete, read and interpret information in tables, including timetables
Tracking Information Number Milestone 13	
Encountering	1-7 statements
Emerging	8- 14 statements
Developing	15 – 21 statements
Secure	22 - 27 statements

Number Summary	
Date:	Assessment Level:

Number Milestone 14	
Number and Place Value	
<ul style="list-style-type: none"> Pupil can read, write order and compare numbers up to 1 000 000 and determine the value of each digit Pupil can round any whole number to a required degree of accuracy Pupil can use negative numbers in context, and calculate intervals across zero Pupil can solve number and practical problems that involve all of the above 	
Calculations	Fractions (including Decimals and Percentages)
<ul style="list-style-type: none"> Pupil can multiply multi digit numbers up to 4 digits by a two digit whole number using formal written method of long multiplication Pupil can divide numbers up to 4 digits by a two digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context Pupil can divide numbers up to 4 digits by a two digit number, using the formal written method of short division where appropriate, interpreting remainder according to the context Pupil can perform mental calculations, including with mixed operations and large numbers Pupil can identify common factors, common multiples and prime numbers Pupil uses their knowledge of the order of operations to carry out calculations involving the four operations Pupil can solve addition and subtraction multistep problems in context, deciding which operations and methods to use and why Pupil can solve problems involving addition, subtraction, multiplication and division Pupil uses estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy Pupil can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions 	<ul style="list-style-type: none"> Pupil uses common factors to simplify fractions; use common multiples to express fractions in the same denomination Pupil can multiply simple pairs of proper fractions, writing the answer in its simplest form e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$ Pupil can divide proper fractions by whole numbers e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$ Pupil can associate a fraction with division and calculate decimal fraction equivalents e.g. 0.375 for a simple fraction e.g. $\frac{3}{8}$ Pupil can identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places Pupil can multiply one digit numbers with up to two decimal places by whole numbers Pupil can use written division methods in cases where the answer has up to two decimal places Pupil can solve problems which require answers to be rounded to specified degrees of accuracy Pupil can recall and use equivalences between simple fractions, decimals and percentages, including in different contexts
Ratio and Proportion	Statistics
<ul style="list-style-type: none"> Pupil can solve problems involving the relative size of two quantities where missing values can be found by using integer multiplication and division facts Pupil can solve problems involving the calculation of percentages e.g. of measures, and such as 15% of 360, and use the percentages of comparison Pupil can solve problems involving similar shapes where the scale factor is known or can be found Pupil can solve problems involving unequal knowledge of fraction and multiples Pupil can compare and order fractions, including fractions > 1 	<ul style="list-style-type: none"> Pupil can interpret and construct pie charts or line graphs and use these to solve problems Pupil can calculate and interpret the mean of an average
Algebra	
<ul style="list-style-type: none"> Pupil can solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts Pupil solves problems involving the calculation of percentages (for example, of measures, and such as 15% of 360) and the use of percentages for comparison Pupil can solve problems involving similar shapes where scale factor is known or can be found Pupil solves problems involving unequal sharing and grouping using knowledge of fractions and multiples 	
Tracking Information Number Milestone 14	
Encountering	1-9 statements
Emerging	10- 18 statements
Developing	19 – 27 statements
Secure	28 - 34 statements
Number Summary	

Date:	Assessment Level:

Geometry Milestone 1

<ul style="list-style-type: none"> • Pupil shakes and squeezes an object placed in hand making sounds unintentionally • Pupil immediately squeezes or shakes object they recognise as making a noise • Pupil imitates pushing a wheeled object • Pupil rolls a ball in imitation • Pupil builds with bricks 	<ul style="list-style-type: none"> • Pupil takes shapes out of a foam board • Pupil pokes small objects with index finger • Pupil matches objects • Pupil helps to stack objects • Pupil helps fill objects • Pupil pours sand/water out of a container • Pupil begins to line up objects 	<ul style="list-style-type: none"> • Pupil places objects in a specific place • Pupil places objects in a container on command • Pupil checks that placed object is where they put it • Pupil empties a container • Pupil looks in a container to make sure it is empty
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Tracking Information Geometry Milestone 1

Encountering	1-3 statements
Emerging	4-7 statements
Developing	8-12 statements
Secure	13-17 statements

Geometry Summary

Date:	Assessment Level:

Geometry Milestone 2

<ul style="list-style-type: none"> • Pupil empties containers • Pupil puts small objects into a box • Pupil takes objects out of a container independently • Pupil takes large pegs out of a pegboard • Pupil takes rings off a stack • Pupil puts rings on a peg • Pupil feels the temperature of liquids • Pupil is aware of light and dark • Pupil matches objects by size 	<ul style="list-style-type: none"> • Pupil is aware than an object still exists when out of sight • Pupil assists with building a tower of blocks • Pupil can stack cups with assistance • Pupil slides blocks • Pupil attempts to put objects together • Pupil watches adult rebuild objects • Pupil assembles simple construction materials 	<ul style="list-style-type: none"> • Pupil begins to use objects with multiple parts i.e. tea set • Pupil attempts to insert objects into inset tray • Pupil attempts to insert objects into jigsaw • Pupil uses objects/material to attempt to build structures in junk • Pupil squeezes soft ball • Pupil is aware of daily routine
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Tracking Information Geometry Milestone 2

Encountering	1-5 statements
Emerging	6-10 statements
Developing	11-15 statements
Secure	16-22 statements

Geometry Summary

Date:	Assessment Level:

Geometry Milestone 3

<ul style="list-style-type: none"> • Pupil notices simple shapes and patterns in objects • Pupil notices simple shapes and patterns in picture • Pupil makes a 'model' from dough • Pupil rolls the dough • Pupil sticks pieces of dough together • Pupil uses simple tools with dough • Pupil puts shapes in a shape sorter • Pupil fills and empties containers • Pupil pours liquid from one container to another • Pupil sorts objects into groups using own criteria • Pupil begins to match object to object 	<ul style="list-style-type: none"> • Pupil handles a range of 3D shapes • Pupil matches 2D shapes • Pupil imitates circular movements with hand • Pupil makes circular movements with drawing tool • Pupil places objects where asked: · on, under, next to, off, bottom, on top • Pupil can move object or person using these terms: stop, go, up, down, fast, slow 	<ul style="list-style-type: none"> • Pupil sorts objects by size • Pupil points to big and little when asked • Pupil points to a group of objects with more/less • Pupil places objects in order by size • Pupil finds two objects that are the same size • Pupil points to small/largest • Pupil uses terms to describe objects: hard, soft, hot, cold, long, short, big, small • Pupil sequences 2 pictures of daily events
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Tracking Information Geometry Milestone 3

Encountering	1-6 statements
Emerging	7-12 statements
Developing	13-19 statements
Secure	20-25 statements

Geometry Summary

Date:	Assessment Level:

Geometry Milestone 4

<ul style="list-style-type: none"> • Pupil shows an interest in shape and space by making arrangements with objects • Pupil matches shapes • Pupil shows an awareness of similarities in shapes in the environment • Pupil observes and uses positional language • Pupil talks about the shapes of familiar objects • Pupil uses shapes appropriate for task • Pupil joins the dots to draw a square • Pupil joins the dots to draw a triangle • Pupil makes shapes from play dough • Pupil makes patterns using 2D shapes • Pupil finds all the shapes like this i.e. all circles regardless of size • Pupil finds shapes from description i.e. with a straight edge • Pupil compares length of objects 	<ul style="list-style-type: none"> • Pupil uses the comparative terms: · up/down · big/small top/bottom · on/off · hot/cold · wet/dry · stop/go · in/out · high/low · under/over/on · front/back · high/low · more/less • Pupil moves forward on command • Pupil moves backwards on command • Pupil moves quickly on command • Pupil moves slowly on command • Pupil describes the directional movement of objects • Pupil moves objects across the computer screen 	<ul style="list-style-type: none"> • Pupil finds the biggest ball from 3 or more • Pupil finds the smallest ball from 3 or more • Pupil sequences 3 pictures of daily events • Pupil can find the lighter package from a choice of 2 • Pupil can find the heavier package from a choice of 2 • Pupil can use comparative language in practical situations: · long/short · heavy/light · thick/thin · large/small · before/after · wide/narrow · full/empty · day/night · light/dark · straight/curved · more/less enough/not enough
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Tracking Information Geometry Milestone 4

Encountering	1-6 statements
Emerging	7-12 statements
Developing	13-19 statements
Secure	20-26 statements

Geometry Summary

Date:	Assessment Level:

Geometry Milestone 5

<ul style="list-style-type: none"> • Pupil can match some shapes by recognising similarities and orientation • Pupil uses appropriate shapes to make representational models • Pupil uses appropriate shapes to make elaborate pictures • Pupil shows curiosity and observation by talking about shapes • Pupil talks about how shapes are the same or why some are different • Pupil finds items from positional/directional clues • Pupil describes a single journey 	<ul style="list-style-type: none"> • Pupil uses the comparative terms: · long/short · heavy/light · thick/thin · large/small · before/after · wide/narrow · full/empty · day/night · light/dark · straight/curved • Pupil can order two/three items by length • Pupil can order two items by height • Pupil can order two items by weight or capacity • Pupil can adapt shapes or cut material to size • Pupil can select a particular named shape • Pupil begins to use some mathematical names for 'flat' 2D shapes • Pupil begins to use some mathematical names for 'solid' 3D shapes • Pupil uses some mathematical terms to describe shapes 	<ul style="list-style-type: none"> • Pupil can talk about how often events occur • Pupil is aware of the duration to time • Pupil is aware of the key times of the day Pupil sequences 3 pictures of daily events • Pupil has an awareness that each day has a name • Pupil gives the day an appropriate name that may not be correct • Pupil discusses what they did before lunch • Pupil discusses what they will do after lunch • Pupil uses 1p coins to 20p • Pupil identifies some coins
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Tracking Information Geometry Milestone 5

Encountering	1-6 statements
Emerging	7-12 statements
Developing	13-19 statements
Secure	20-25 statements

Geometry Summary

Date:	Assessment Level:

Geometry Milestone 6	
Metric Measure	
<ul style="list-style-type: none"> • Pupil can compare objects directly focusing on one dimension where the difference is less obvious • Pupil can continue to make relevant estimates and check accuracy 	
Money	Time
<ul style="list-style-type: none"> • In role play, pupil can use up to ten 1p coins to buy objects up to the value of 10p • Pupil can recognise and sort 1p, 2p and 5p coins by the size, shape and colour 	<ul style="list-style-type: none"> • Pupil is secure with the passing of time through the use of language related to periods of the day e.g. Good Morning, Good Afternoon or Breakfast etc
Geometry	Position and Direction
<ul style="list-style-type: none"> • Pupil can begin to use familiar mathematical language relating to shape e.g. a round ball, my shape has straight sides • Pupil is able to match shapes e.g. can you give/show me another shape like this one? • Pupil can sort shapes according to given criteria • Pupil uses shapes to make patterns • Pupil uses shapes to make models 	<ul style="list-style-type: none"> • Pupil can demonstrate an understanding of the language of backwards and forwards e.g. give simple instructions or describe movements • Pupil can respond to and use a wider range of positional language e.g. behind, over, next to, above and below
Tracking Information Geometry Milestone 6	
Encountering	1-2 statements
Emerging	3- 5 statements
Developing	6 – 9 statements
Secure	10 - 12 statements
Geometry Summary	
Date:	Assessment Level:

Geometry Milestone 7

Metric Measure

- Pupil can find the longest or shortest from a group of 3
- Pupil can begin to use comparative language e.g. fast/slow, long/short, heavy/light, full/empty in range of contexts and practical applications
- Pupil can find objects e.g. longer/shorter, heavier/lighter than a given object
- Pupil can continue to make relevant estimates with increasing accuracy
- Pupil can use a balance to find out which object is heavier
- Pupil can find out how many cups of water/sand/rice fill a container
- Pupil uses terms such as full, empty, holds

Money

- Pupil can recognise and sort 1p, 2p, 5p, 10p, 20p, 50p coins by the size, shape and colour
- Pupil can find equivalent amounts of 1ps to equal 1p, 2p, 5p and 10p coins

Time

- Pupil can recite the days of the week
- Pupil knows that there are 7 days in a week
- Pupil knows months of significant events e.g. birthday
- Pupil knows that different events/activities can occur on different days
- Pupil is aware of the sequence of day/night/day/night, and relate this to the passing of the days of the week

Geometry

- Pupil can begin to identify own criteria for sorting and matching 2D and 3D shapes using familiar every day and mathematical language
- Pupil can begin to use the language of straight and curved
- Pupil can find specific shapes when asked

Position and Direction

- Pupil can respond to instructional language relating to turning in a range of contexts e.g. PE, dance and playing games
- Pupil can use everyday language to describe the position of objects

Tracking Information Geometry Milestone 7

Encountering	1-4 statements
Emerging	5- 9 statements
Developing	10 – 14 statements
Secure	15 – 19 statements

Geometry Summary

Date:	Assessment Level:

Geometry Milestone 8

Metric Measure

- Pupil can measure length/capacity and order more than 2 measurements using direct comparison e.g. compare lengths directly and put them in order
- Pupil can measure the weight of two objects by handling or using a balance
- Pupil can understand the comparative terms when comparing two objects e.g. heavier/lighter, shorter and longer
- Pupil is able to recognise objects that have the same length, mass and capacity e.g. find something with the same weight as a block; the same length as a ruler; the same capacity as a bottle
- Pupil can begin to understand the importance of starting at the same point when measuring lengths
- Pupil can make relevant estimates
- Pupil can order objects according to width
- Pupil uses parts of the body to measure objects e.g. hand spans
- Pupil can check the results of their estimation of weights using scales
- Pupil can find a range of objects heavier/lighter than
- Pupil can compare the volume of three containers and order them by size

Money

- Pupil can recognise all coins up to £2
- Pupil can find different combinations of coins to a value of 10p
- In role play, pupil understands that sometimes change can be given when shopping
- Pupil has an awareness that beyond £2, there are larger denominations of money represented by notes

Time

- Pupil knows the days of the week in order
- Pupil knows the weekdays and weekends
- Pupil begins to use today/yesterday/tomorrow
- Pupil begins to know the months of the year
- Pupil is familiar with the clock face and the hands of an analogue clock
- Pupil can read the time in hours on an analogue clock

Geometry

- Pupil is able to name common 2D shapes such as triangle, circle and square
- Pupil begins to identify commonalities between 2D and 3D shapes
- Pupil can identify some differences between 2D and 3D shapes using language such as flat and solid
- Pupil can sort familiar shapes accurately according to their properties
- Pupil can match simple 3D shapes by their names e.g. cone, cube, pyramid

Position and Direction

- Pupil can respond to instructional language relating to turning in a range of contexts e.g. PE, dance and playing games e.g. left, and right; backwards and forwards; up, down and turnaround
- Pupil understands one whole turn e.g. returning to the starting position

Tracking Information Geometry Milestone 8

Encountering	1-8 statements
Emerging	9- 16 statements
Developing	17 – 23 statements
Secure	24 – 29 statements

Geometry Summary

Date:	Assessment Level:

Geometry Milestone 9	
Metric Measure	
<ul style="list-style-type: none"> Pupil can measure and begin to record the following using non-standard units and some standard units: lengths and heights, mass and weight, volume/capacity, time Pupil can compare, describe and solve practical problems for: <i>lengths and heights</i>, e.g. long/short, longer/shorter, tall/short, double/half <i>mass/weight</i> e.g. heavy/light, heavier than/lighter than <i>capacity and volume</i> e.g. full/empty, more than/less than, half/half full/quarter <i>time</i> e.g. quicker/slower/earlier/later 	
Money	Time
<ul style="list-style-type: none"> Pupil can recognise and know the value of different denomination of coins and notes Pupil can solve more complex problems involving money Pupil can reason about more complex practical problems involving money and other measures 	<ul style="list-style-type: none"> Pupil can sequence the events of several days in chronological order using appropriate language (before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening) Pupil can tell the time to half past the hour using clocks to show these times Pupil can draw the hands on the clock to show o'clock times Pupil can recognise and use language relating to dates, including days of the week, weeks, months and years Pupil knows that there are 7 days in a week Pupil can name the day before or after any given day Pupil can solve measure problems in a practical context using standardised units
Geometry	Position and Direction
<ul style="list-style-type: none"> Pupil can recognise, name and describe the properties of common 2D shapes including rectangles (including squares), circles and triangles Pupil can recognise, name and describe the properties of common 3D shapes including cuboids (including cubes, pyramids and spheres) Pupil can solve simple problems involving shapes e.g. find me a shape that has more than 3 edges, do all 2D shapes have at least 4 sides? Tell me something that is the same about a triangle and rectangle Pupil can compare and sort common 2D and 3D shapes and common objects 	<ul style="list-style-type: none"> Pupil can describe positions, directions and movement, including whole, half, quarter and three quarter turns Pupil can solve problems involving position and direction e.g. this shape was turned three quarters of a full turn and ended up looking like this. What did it look like when it started?
Tracking Information Geometry Milestone 9	
Encountering	1-5 statements
Emerging	6- 10 statements
Developing	11 – 14 statements
Secure	15 – 18 statements
Geometry Summary	
Date:	Assessment Level:

Geometry Milestone 10	
Metric Measure	
<ul style="list-style-type: none"> • Pupil can compare and order lengths, mass, volume and capacity and record the results using greater than (>), less than (<) and equals (=) • Pupil can reason about simple multiplicative relationships such as twice as long, 10 times as high, direction (m/cm); mass (kg/g); temperature (°C); capacity (l/ml) to the nearest labelled unit using rulers, scales, thermometers and measuring vessels • Pupil can solve problems involving measures 	
Money	Time
<ul style="list-style-type: none"> • Pupil can recognise and use the symbols for pounds (£) and pence (p) and combine amounts to make a particular value • Pupil can find different combinations of coins that equal the same amounts of money • Pupil can solve problems involving money of the same unit, including giving change 	<ul style="list-style-type: none"> • Pupil can compare and order intervals of time • Pupil can tell and write the time to 5 minutes, including quarter past/to the hour • Pupil can draw hands on a clock to show the time on the hour and half past • Pupil knows the number of minutes in an hour and the number of hours in a day • Pupil can solve problems using time
Geometry	Position and Direction
<ul style="list-style-type: none"> • Pupil can identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line • Pupil can identify and describe the properties of 3D shapes, including the number of edges, vertices and faces • Pupil can identify 2D shapes on the surface of 3D shapes e.g. a circle on a cylinder and a triangle on a pyramid • Pupil can compare and sort common 2D and 3D shapes on everyday objects 	<ul style="list-style-type: none"> • Pupil can order and arrange combinations of mathematical objects in patterns and sequences • Pupil can use mathematical vocabulary to describe position, direction and movement, including movement in a straight line • Pupil can distinguish between rotation as a turn and in terms of right angles for quarter, half and three quarter turns (clockwise and anti-clockwise)
Tracking Information Geometry Milestone 10	
Encountering	1-5 statements
Emerging	6- 10 statements
Developing	11 – 14 statements
Secure	15 – 18 statements
Geometry Summary	
Date:	Assessment Level:

Geometry Milestone 11	
Metric Measure	
<ul style="list-style-type: none"> • Pupil can measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume and capacity (l/ml) • Pupil can measure the perimeter of simple 2D shapes 	
Money	Time
<ul style="list-style-type: none"> • Pupil can add and subtract amounts of money to give change, using both £ and p in practical contexts • Pupil can solve more complex problems involving money and other measures, including the duration of time • Pupil can reason about more complex practical problems involving money and other measures 	<ul style="list-style-type: none"> • Pupil can tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12 hour and 24 hour clocks • Pupil can estimate and read with an increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight • Pupil knows the number of seconds in a minute and the number of days in each month, year and leap year
Geometry	Position and Direction
<ul style="list-style-type: none"> • Pupil can draw 2D shapes and make 3D shapes using modelling materials • Pupil can recognise 3D shapes in different orientations and describe them • Pupil can recognise angles as a property of shape or a description of a turn • Pupil can identify right angles as a property or a description of a turn • Pupil identifies right angles, recognise that two right angles make a half turn, three makes three quarters and four makes a complete turn • Pupil can identify whether angles are greater than or less than a right angle 	<ul style="list-style-type: none"> • Pupil can identify horizontal and vertical lines and pairs of perpendicular and parallel lines
Tracking Information Geometry Milestone 11	
Encountering	1-3 statements
Emerging	4- 7 statements
Developing	8 – 12 statements
Secure	13 – 15 statements
Geometry Summary	
Date:	Assessment Level:

Geometry Milestone 12	
Metric Measure	
<ul style="list-style-type: none"> • Pupil can convert between different units of measure (for example, kilometre to metre; hour to minute) • Pupil can measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and meters • Pupil can find the area of rectilinear shapes by counting squares • Pupil can estimate, compare and calculate different measures, including money in pounds and pence 	
Money	Time
<ul style="list-style-type: none"> • Pupil can convert pence to pounds • Pupil can add and subtract larger amounts of money to give change, using both £ and p in practical contexts • Pupil can solve more complex problems involving money and other measures, including the duration of time using the 12 and 24 hour clock • Pupil can reason about more complex practical problems involving money and other measures 	<ul style="list-style-type: none"> • Pupil can read, write and convert time between analogue and digital 12 and 24 hour clocks • Pupil can solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days
Geometry	Position and Direction
<ul style="list-style-type: none"> • Pupil can compare and classify geometric shapes, including quadrilaterals (parallelogram, rhombus, trapezium) and triangles (isosceles, equilateral, scalene) based on their properties and size • Pupil can identify acute and obtuse angles and compare and order angles up to two right angles by size • Pupil identifies lines of symmetry in 2D shapes in different orientations • Pupil can complete a simple symmetric figure with respect to a specific line of symmetry • Pupil can reason about and solve more complex problems involving shapes including different triangles, acute and obtuse angles 	<ul style="list-style-type: none"> • Pupil can describe positions on a 2D grid as coordinates in the first quadrant • Pupil describes movements between positions as translations of a given unit to the left/right and up/down • Pupil can plot specified points and draw sides to complete a given polygon • Pupil can solve problems involving reasoning about shapes and their positions on a 2D grid using co-ordinates in the first quadrant
Tracking Information Geometry Milestone 12	
Encountering	1-5 statements
Emerging	6- 10 statements
Developing	11 – 14 statements
Secure	15 – 19 statements
Geometry Summary	
Date:	Assessment Level:

Geometry Milestone 13

Metric Measure

- Pupil can convert between different units of metric measure e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre
- Pupil can understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
- Pupil can measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- Pupil can calculate and compare the area of rectangles (including squares) and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes
- Pupil can estimate volume e.g. using 1cm³ blocks to build cuboids (including cubes) and capacity e.g. using water
- Pupil can use all four operations to solve problems involving measure e.g. length, mass, volume, money using decimal notation, including scaling
- Pupil can demonstrate fluency in converting between different units of measure to solve problems, using all four operations
- Pupil can reason about more complex problems involving calculations of area and volume

Geometry

- Pupil can identify 3D shapes, including cubes and other cuboids, from 2D representations
- Pupil knows that angles are measured in degrees; estimate and compare acute, obtuse and reflex angles
- Pupil can draw given angles, and measure them in degrees (°)
- Pupil can identify:
 - angles at a point and one whole turn (total 360°)
 - angles at a point on a straight line and ½ a turn (total 180°)
 - other multiples of 90°
- Pupil can use properties of rectangles and irregular polygons based on reasoning about equal sides and angles
- Pupil can distinguish between regular and irregular polygons based on reasoning about equal sides and angles
- Pupil can reason about and make deductions when solving more complex problems involving angles

Time

- Pupil can solve problems involving converting between units of time

Position and Direction

- Pupil can identify, describe and represent the position of a shape following reflection or translation, using the appropriate language, and know that the shape has not changed
- Pupil can solve more complex problems involving reflection and translation of shapes

Tracking Information Geometry Milestone 13

Encountering	1-5 statements
Emerging	6- 10 statements
Developing	11 – 14 statements
Secure	15 – 18 statements

Geometry Summary

Date:	Assessment Level:

Geometry Milestone 14

Metric Measure

- Pupil can solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
- Pupil can use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places
- Pupil can convert between miles and kilometres
- Pupil can recognise that shapes with the same areas can have different perimeters and vice versa
- Pupil can recognise when it is possible to use formulae for area and volume of shapes
- Pupil can calculate the area of parallelograms and triangles
- Pupil can calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units e.g. mm³ and km

Geometry

- Pupil can draw 2D shapes using given dimensions and angles
- Pupil can recognise, describe and build simple 3D shapes, including making nets
- Pupil can compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
- Pupil can illustrate and name parts of circles, including radius, diameter and circumference and know the diameter is twice the radius
- Pupil can recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles

Position and Direction

- Pupil can describe positions on the full coordinate grid (all four quadrants)
- Pupil can draw and translate simple shapes on the coordinate plane, and reflect them in the axes

Tracking Information Geometry Milestone 14

Encountering	1-3 statements
Emerging	4- 6 statements
Developing	7 – 9 statements
Secure	10 – 14 statements

Geometry Summary

Date:	Assessment Level: