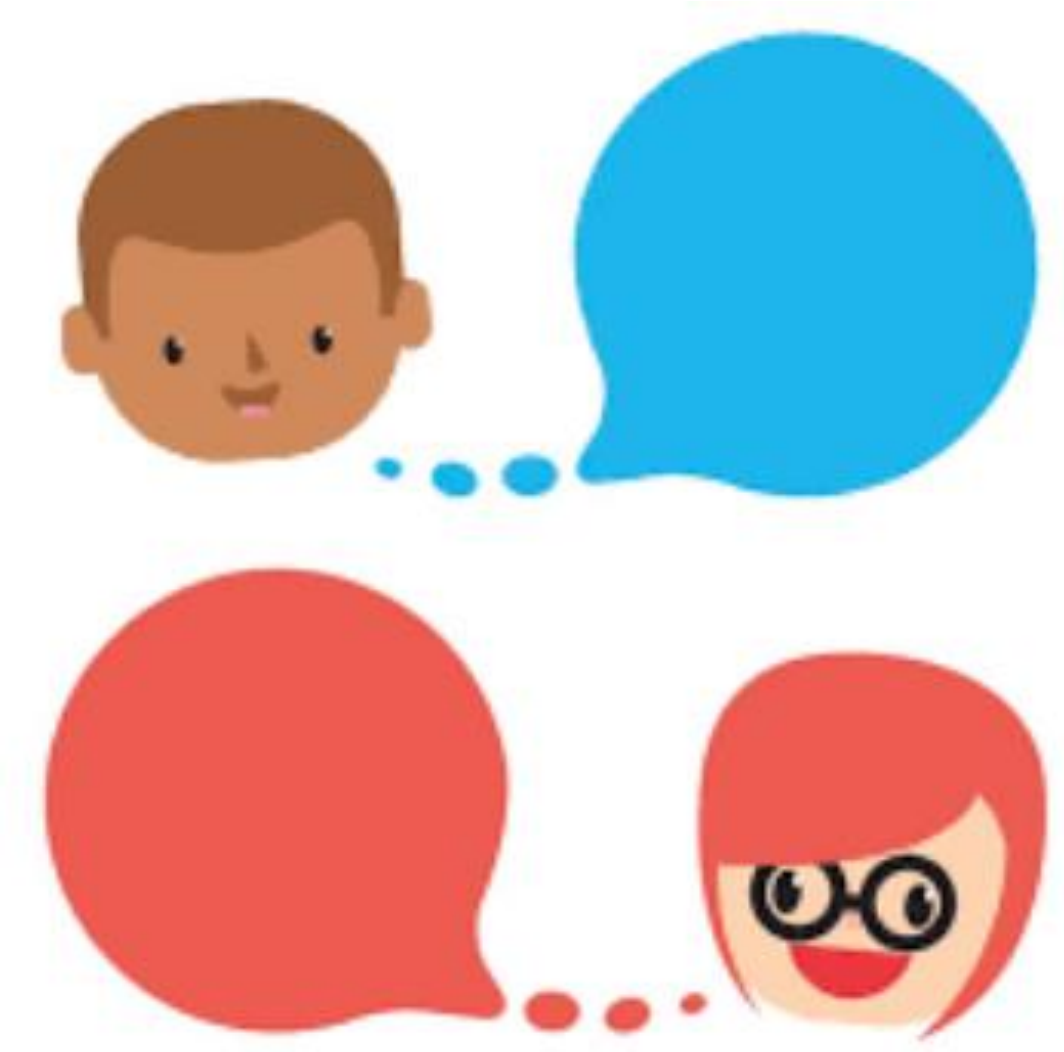
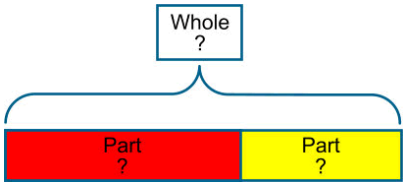
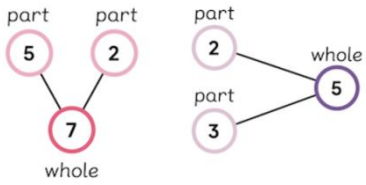
Pound Hill
Junior School

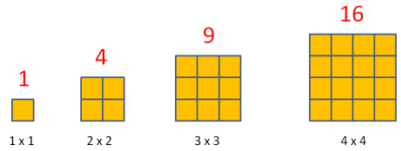
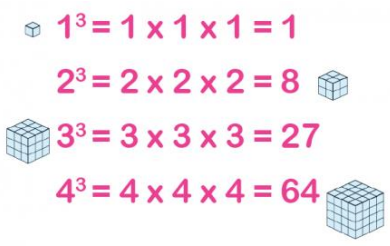
Vocabulary and Stem Sentences

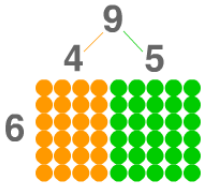


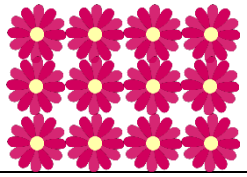
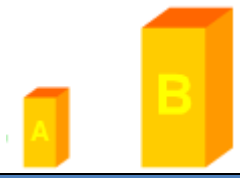
Vocabulary and Stem Sentence Bank

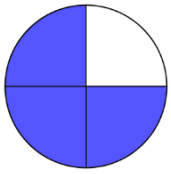
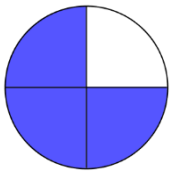
These words have been organised underneath headings linked to the different strands of the maths curriculum and written in order so common associations are grouped together.

Term	Definition	Stem Sentences
Number and Place Value		
Digit	A single numeral e.g 4 or 7	The value of the __ digit in ____ is ____ 'The value of the 6 digit in 173,463 is 60.'
Integer	A whole number e.g 56, 107, 5000	
Negative number	A number less than 0.	
Ones	Digits representing 0-9	The ___ in ____ represents the ones. 'The 5 in 475 represents the ones.'
Whole	The total amount. 	___ is the whole, ___ and ___ are the parts. '20 is the whole, 16 and 4 are the parts.'
Part	An portion of a number that makes part of the whole. 	A part of ___ is _____ 'A part of 10 is 6.' ____ can be split into the parts ___ and ____ '10 can be split into the parts 6 and 4'
Partitioning	Splitting a number into parts.	___ can be partitioned into ___ and ___ '35 can be partitioned into 30 and 5'
Equal	When two numbers and/or calculations have the same value or worth.	____ is the same as_____ '20 + 20 is the same as 10 x 4' _____ is equal to _____ '56 is equal to 7 x 8'
Less than	When the value or worth of a number/calculation is smaller than another. < is the symbol used to represent less than.	_____ is less than ____ '4 is less than 5' _____ < _____ '10 < 5 x 3'
Greater than	When the value or worth of a number/calculation is larger than another. > Is the symbol used to represent greater than.	____ is greater than ____ '3/5 is greater than 1/5' ___ is more than ____ '17 + 33 is more than 15 + 34' ___ > ____ '40 ÷5 > 5 + 2'

Odd	Numbers that can't be made of groups of two. Odd numbers can be partitioned into one odd part and one even part. 	___ is not made of pairs; it is an odd number. '37 is not made of pairs; it is an odd number. '
Even	Numbers that can be made out of groups of two. Even numbers can be partitioned into two odd parts or two even  parts.	___ is made of pairs of ___; it is an even number. '12 is made of pairs of 6; it is an even number.'
Ordinal number	A number that gives a position eg. 1st.	
Cardinal number	A number that represents a quantity.	
Prime number	A number that can only be divided by itself and 1.	I know that ___ is a prime number because its only factors are ___ and 1. 'I know that 19 is a prime number because its only factors are 19 and 1.'
Square number	A number created from multiplying an integer by itself.  	I know _____ is a square number because you multiple ___ by itself. 'I know 64 is a square number because you multiple 8 by itself.'
Cube number	A number created by multiplying an integer by itself three times.  	If I multiple ___ by itself three times, I get the cube number ____. 'If I multiple 10 by itself three times, I get the cube number 1000.'

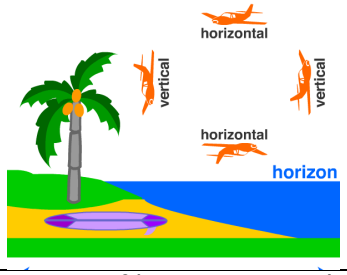
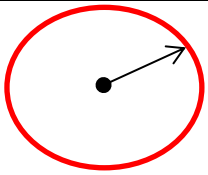
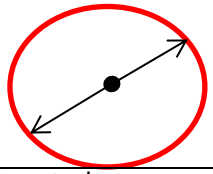
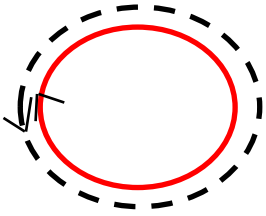
Calculations		
Number sentence	Representing the maths of a context with numbers and symbols. E.g 50 + 20 = 70	The number sentence that represents the word problem is _____ **Jake has 10 stickers, he gives 4 to his sister. How many does he have left?** 'The number sentence that represents the word problem is 10 – 4 = 6'
Operation	Four actions to solve problems; addition, subtraction, multiplication and division.	
Calculation	Using any of the four operations between numbers. E.g 10 + 5, 10 x 5, 10 – 5, 10 ÷5	
Estimate	Finding an approximate answer by rounding the numbers to the nearest one, tens, hundreds etc.	I estimate _____ is _____ because I can do _____ 'I estimate 19 x 8 is 160 because I can do 20 x 8.'
Rounding	Changing the number up or down to the nearest one, ten, hundred etc depending how close it is.	I know to round ___ to ____ because it is between ___ and ____ and the ____ is above/below 5. 'I know to round 67 to 70 because it is between 60 and 70 and the ones is above 5.'
Commutative	Adding or multiplying numbers together in any order because you still get the same total.	If I know _____ then I also know _____ "If I know 12 + 3 = 15 then I also know 3 + 12 = 15'
Distributive	Splitting a multiplication up into two different calculations that still represent the same amount. 9 x 6 is the same as 4x6 and 5x6 added together.  	I know that ___ groups of ___ is the same as ___ groups of ____ and ____ groups of ____ 'I know that 3 groups of 15 is the same as 3 groups of 10 and 3 groups of 5.'
Addition		
Adding	Combining 2(or more) parts to make a whole.	
Sum	The calculation that represents an addition operation.	The sum of ___ and ____ is _____ 'The sum of 24 and 30 is 54'
Total	The amount you get from adding 2 or more numbers together.	The total of the parts ___ and ____ is _____. 'The total of the parts 30 and 70 is 100.'
Subtraction		
Take away	Removing a part from the whole.	

Difference	The amount of the missing part between part and whole.	The difference between___ and ___ is ____ 'The difference between 35 and 50 is 15'
Multiplication		
Times	An amount that is added to itself multiple times.	___ times ____ equals _____ 'three times ten equals thirty'
Groups	The amount of the same number in a multiplication.	There are ___ groups of ____ in ____ 'There are 4 groups of 5 in 20'
Multiples	The result of multiplying one whole number with another. E.G 3,6,9,12 are multiples of 3.	I know that __ is a multiple of ___ because it is in the ___ times table. 'I know that 20 is a multiple of 5 because it is in the 5 times table.' I know that ____ is a multiple of ___ because it is made of ___ equal groups of ___. 'I know that 42 is a multiple of 6 because it is made of 7 equal groups of 6.
Array	Arranging symbols/objects into columns and rows to represent multiplication. 	There are ____ lots of _____. 'There are 3 lots of 4.'
Scaling	The ratio between two amounts. B is twice the size of A. 	____ is a _____of the size of ____ '15cm is a third of the size of 45cm'
Division		
Divide	Sharing out an amount into equal groups.	
Factors	A factor of a number is a whole number that divides exactly into it.	___ is a factor of ___ because I can share it into ___ equal groups of ____ '3 is a factor of 12 because I can share it into 3 equal groups of 4.
Remainders	When you divide one number by another and the answer does not divide exactly and you have an amount left over.	

Fractions, Percentages, Decimals		
Fraction	A part of something. The whole can be one object or a group of objects.	
Numerator	The top part of the fraction that shows how many parts you are looking at. $\frac{3}{4}$ ← 	
Denominator	The bottom part of the fraction that shows how many equal parts are in the whole. $\frac{3}{4}$ ← 	
Unit fractions	A fraction that has a numerator of 1. E.g ¼	___ is a unit fraction. "1/5 is a unit fraction." A unit fraction always has a numerator of ___ "A unit fraction always has a numerator of 1"
Non- unit fractions	A fraction that has a numerator larger than 1. E.g ¾	___ is a non-unit fraction. "3/5 is a non-unit fraction." A non-unit fraction always has a numerator _____ "A non-unit fraction always has a numerator bigger than 1"
Mixed number	A whole number and a fraction. E.g 2 ¾	The ___ represents ____ "The 2 represents 8 quarters" A mixed number is made up of a ___ and a _____ "A mixed number is made up of a whole number and a fraction."
Improper fraction	A fraction that has a numerator larger than the denominator. E.g 8/4	____ is an improper fraction. "7/5 is an improper fraction."
Equivalent fractions	Fractions worth the same amount.	___ is equivalent to ____ "1/2 is equivalent to 3/6" I know ____ and ____ are the same because… "I know ¼ and 4/16 are the same because both the numerator and the denominator have been multiplied by 4."

Decimal equivalents	Decimals that have the same worth as a fraction.	____ is the same as _____ '0.1 is the same as one tenth.'
Tenths	When the whole has been split into 10 equal parts.	1/10 of ____ is _____ "1/10 of 50 is 5" To find a 1/10 of ___, I must.... "To find a 1/10 of 30, I must divide 30 by 10 so 1/10 of 30 is 3. If I have ____, I have ____ left over "If I have 2/10, I have 8/10 left over."
Percentage	An amount out of 100.	I know ___% is ___ out of 100. "I know 15% is 15 out of 100."
Ratio		
Relative size	Changing the amount of an item to be in proportion to another amount.	
Proportion	Having two ratios that are equal in size. E.g 1:5 is the same as 2:10	If the ratio is ____, then if I had ____, I would also have _____. "If the ratio is 2:5, then if I have 40 boys, I would also have 100 girls."
Ratio	Comparing one part of a whole to another part of a whole. Eg. The ratio in cooking is 1(egg):100(grams of flour)	For every ____, I have _____ "For every 5 blue pegs, I have 10 red pegs."
Algebra		
Formulae	A rule that uses symbols or letters to represent any number you place in there. E.G a x b = c	
Linear number sequence	A sequence that goes up in the same amount each time or follows a rule.	
Measurement		
Length	The measurement for how long something is.	
Mass	Amount of matter in an object.	

Weight	How heavy an item is.	
Volume	The space taken up by an object or the amount of liquid	
Capacity	How much liquid a container could hold.	
Metric	A modern unit of measurement including centimetre, litre, grams	10mm = _____ "10mm = 1cm" I know that there are ___ cm in ___m so I know there are ____cm in ___m. "I know that are 100cm in 1m so I know there are 500cm in 5m"
Imperial	An old unit of measurement including mile, inch, foot, pint	1lb is the same as ___ oz "1lb is the same as 16 oz"
Analogue clock	A clock where the time if represented on a face with hands.	The _____ hand represents _____ "The long hand represent the minutes" The ___ represents ___ minutes "The 4 represents 20 minutes."
Digital clock	The time represented as digits.	The ___ in _____ represents ____ "The 3 in 03:15 represents the hour."
Perimeter	The length around a 2D shape.	To find the perimeter of ____, I must… "To find the perimeter of a pentagon, I must multiply the length of one side by 5" A square will always have…" "A square will always have a perimeter with a multiple of 4."
Area	The amount of space a shape covers.	If I know the length and width of ___ is_____ then I know the area is _____ "If I know the length and width of the rectangle is 6cm and 4cm then I know the area is 24cm." To find the area of a _____, I must… "To find the area of a triangle, I must multiply the base by the height and then half it."
Geometry		
2D shape	An outline with length and width.	
3D shape	An object with length, width and depth.	

Net	A flat shape which can be folded into a 3D shape.	
Polygon	A 2d shape with more than 2 sides.	
Angle	A turn formed between two straight lines meeting.	A _____ angle is (between)_____ (and _____) degrees. 'A right angle is 90 degrees.' 'An acute angle is between 0 and 90 degrees.'
Horizontal/vertical lines	A straight line that runs from top to bottom/left to right. 	
Co ordinates	A pair of letters or numbers that show a position on a grid.	When finding a co-ordinate I must read the ___ axis then the ___ axis. 'When finding a co-ordinate I must read the X axis then the Y axis.' When writing a co-ordinate, I must write ____ then _____ When writing a co-ordinate, I must write x axis then the y axis.'
Translation	Moving a point or object in any direction without rotating it.	
Reflection	A mirror view across a line of reflection.	
Radius	The distance from the centre of a circle to the circumference. 	
Diameter	A straight line that passes through the centre of the circle from one side to the other. 	
Circumference	The distance around a circle. 	

Statistics		
Bar charts	A chart which shows the relation between a set of data.	The _____ bar represents _____ 'The yellow bar represent 6 children'
Pictograms	A diagram where a picture represents a quantity.'	The ___ represents ____ so _____ represents _____. 'The flower represent 5 flowers sold so 2 flowers represents 10 flowers sold.'
Tables	A way of recording or displaying basic data.	
Pie chart	A circle graph where each section represent part of the total.	
Line charts	A graph depicting continuous data.	A _____ line represents _____ 'A steep line represents the plant grew quickly.'
Discrete data	Data that is not related to each other. E.G Favourite colours	
Continuous data	Data that is on the same scale and dependent on the previous piece of data. E.G tracking temperature over multiple days.	
Mean	The average amount of a group of different amounts.	To find the mean, I need to _____ 'To find the mean, I need to add up the amounts and divide by how many amounts there are'