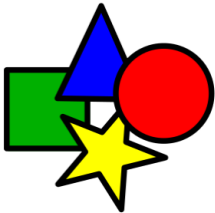
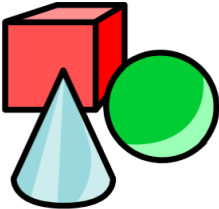
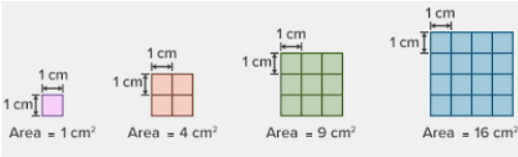
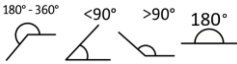
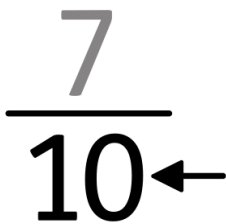
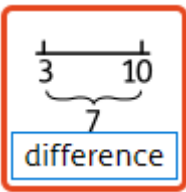
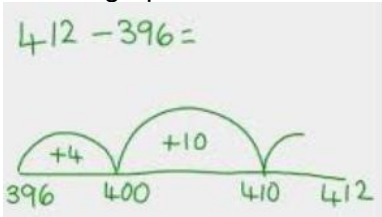
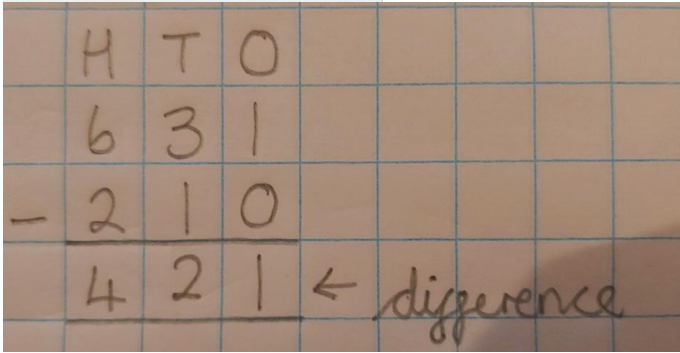
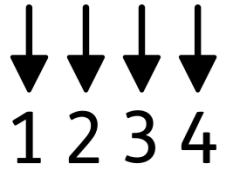


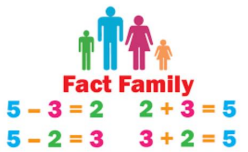
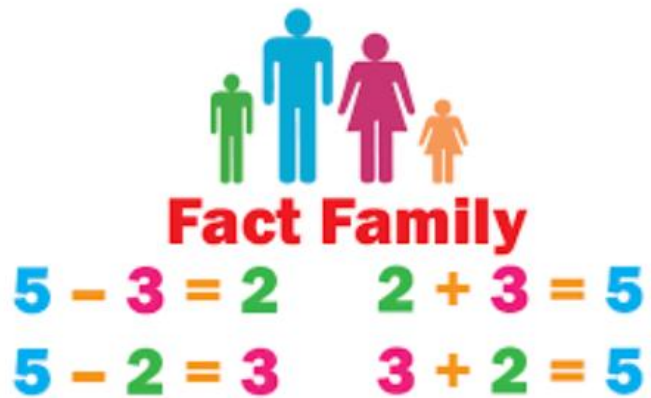
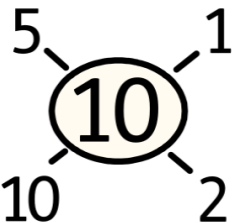
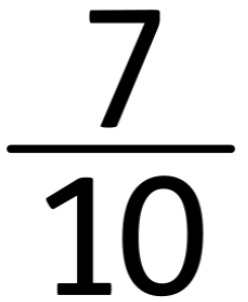
Chaddlewood’s Maths Terminology and Definitions

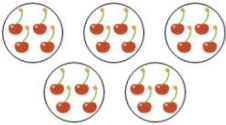
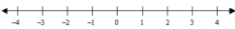
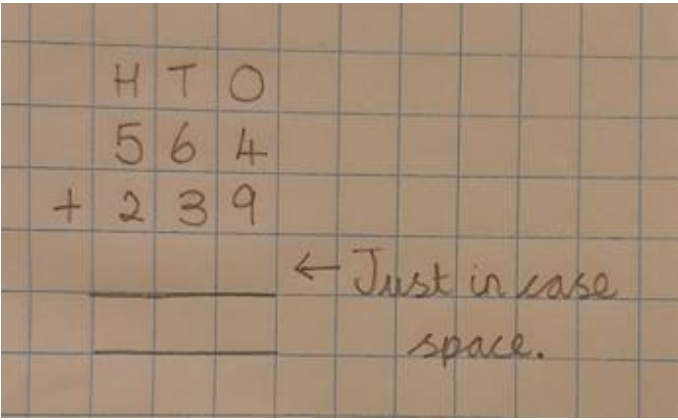
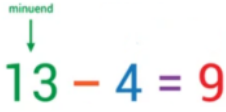
Term	Definition	PM Definition	Widget/pictorial representation	Example	Notes
2D	A flat shape.				
3D	A solid shape.				
area (year 4 onwards)	The area is the amount of space inside a 2D shape.				It is measured in ‘squared’ units..
angle (year 3 onwards)	An angle is a measurement of turn around a fixed point.			Acute angle - between 0° and 90° / Also a quarter of a turn Obtuse angle - between 90° and 180° Straight line angle - 180° / Also half a turn Reflex angle - 180° - 360° Full turn - 360°	It is always around a fixed point.

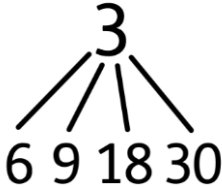
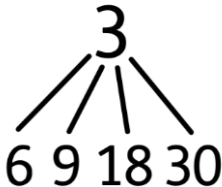
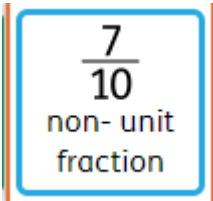
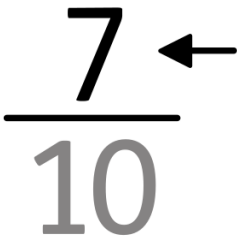
bar model	An image where bars are used to show how a number can be broken down into smaller parts.			
capacity	The capacity is the maximum amount that something can hold.			The term 'capacity' is not to be confused with volume, Capacity is a measure of the maximum amount that a container can hold. Volume refers to the amount of space that a container or object takes up.
commutative	Completing an addition or multiplication calculation in any order.	$a \times b = b \times a$		Subtraction and division are not commutative.
cube number (year 5 onwards)	A cube number is a number that is produced by multiplying a number by itself three times.		$27 = 3 \times 3 \times 3$, so 27 is a cube number.	
decimal	A number with a decimal point (dot) that separates a whole number from parts of a whole.			

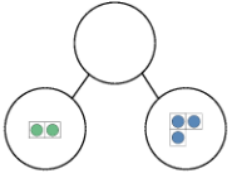
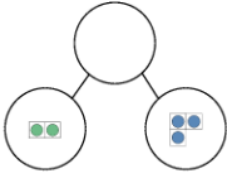
denominator	A denominator is the bottom of the fraction - this is the total of the parts of the whole.		In the fraction 'one quarter' ($\frac{1}{4}$), 4 is the denominator.	
difference	The gap between two numbers.	  	The result when one number is subtracted from the other Alternatively, the difference could be found by 'counting up'.	It is important for the children to understand that the difference can be found by counting up or counting down.
digit	A single number that may occur in any place value position.			In the number 19 there are two digits.

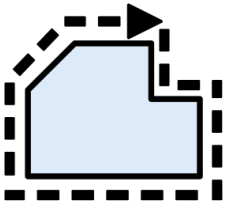
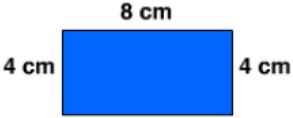
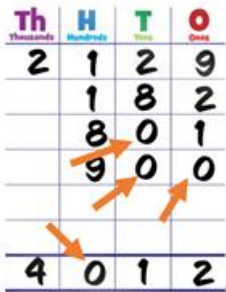
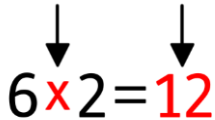
dividend	A number to be divided by another number.	dividend $6 \div 3 = 2$ 5 4 $\overline{) 20}$ dividend	dividend $6 \div 3 = 2$ 5 4 $\overline{) 20}$ dividend	
divisor	A number by which another number is to be divided.	divisor $6 \div 3 = 2$ divisor 5 4 $\overline{) 20}$	divisor $6 \div 3 = 2$ divisor 5 4 $\overline{) 20}$	
equal to	When a number is worth the same as another number or calculation.	$=$	$5 + 4 = 9$ $10 = 8 + 2$	
even (year 1 and 2)	When put into pairs, everyone has a partner, without any left over.			

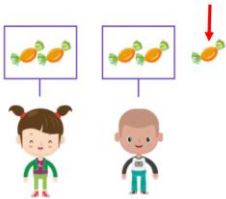
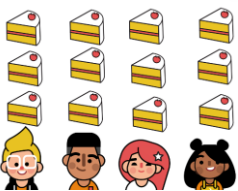
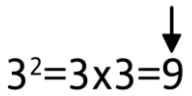
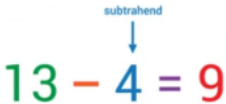
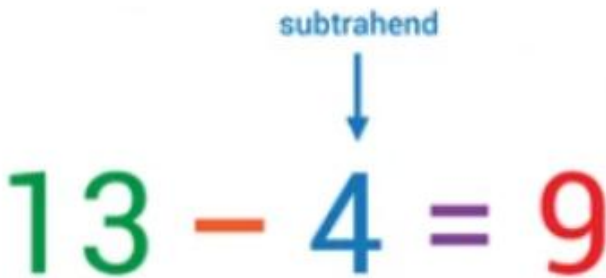
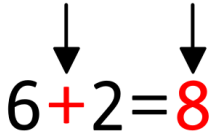
even (year 3 onwards)	A number that can be divided by two without a remainder.			
fact family	A set of calculations that use the same set of three numbers.			
factor (year 5 onwards)	The factors of a number divide into that number without leaving a remainder.		$F \times F = P$ (Factor x Factor = Product) $2 \times 3 = 6$ 2 and 3 are factors and 6 is the product	These are whole numbers that divide into another number completely.
fraction	A fraction is an equal part or parts of a whole. Year 6: a fraction represents a division calculation.		Proper fraction: The numerator is less than the denominator. $\frac{1}{4}$ - a unit fraction where the numerator is 1 $\frac{3}{4}$ a non- unit fraction where the numerator is more than one	
greater than	When a number is worth more than another.		$5 > 2$ $12 > 10$ $101 > 100$	

grouping	When items are put into a known group size.			
improper fraction (year 4 onwards)	An improper fraction is a fraction that has a numerator that is greater than the denominator.	$\frac{9}{4}$ $\frac{7}{2}$ $\frac{10}{7}$	16 / 9 16 is the numerator 9 is the denominator	Improper fractions can be written as mixed number fractions.
integer	A whole number that can be positive, negative, or zero			
inverse	The inverse means the 'opposite' operation.	$+$  $-$ $\times$  $\div$	Addition is the inverse of subtraction and multiplication is the inverse of division.	
'just in case' space	A space left above the equals lines for any digits that need to be regrouped into the next column.			'Regrouping is sometimes referred to as 'carrying'.' Only used for addition and multiplication.
less than	When a number is not worth as much as another.	$<$	$2 < 5$ $10 < 12$ $100 < 101$	
minuend	A number from which another number is to be subtracted.			

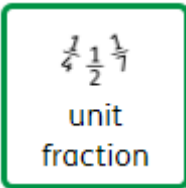
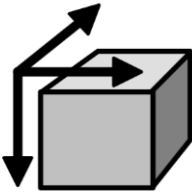
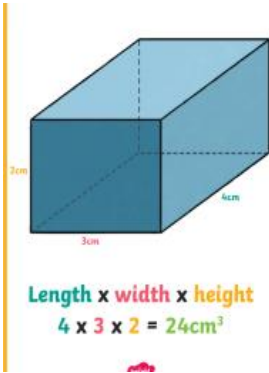
mixed number (year 4 onwards)	A mixed number is a number that is made up of a whole or wholes, and a proper fraction.	$5\frac{2}{7}$	16/9 as above can be written as 1 (9/9) and then 7/9 left over from the 16 parts. $16/9 = 1\frac{7}{9}$	
multiple (year 1 and 2)	A multiple is a number that you would say if you count up in that amount.			
multiple (year 3 onwards)	A multiple of a number is the answer when you multiply that number by any number.		Multiples of 5 are 5,10,15,20,25 etc	
non-unit fraction	A fraction where the numerator is any number higher than 1.			
numerator	The numerator is the top of the fraction - these are the parts of the whole.			
odd (year 1 and 2)	When put into pairs, there is one left over.			

odd (year 3 onwards)	A number that, when divided by two, has a remainder of one.			
'out of' (fraction bar)	The bar in the middle of a fraction.	$\frac{50}{100}$ ←	$\frac{50}{100}$ ← This shows 50 ' <i>out of</i> ' 100.	
partition	Breaking a number up into two or more parts.			
part-part-whole model	An image that shows a number broken up into two or more parts.			This may also be referred to as a 'part-part-part-whole model' if the calculation is broken into three parts. 
percentage	A part of one hundred.			

perimeter (year 3 onwards)	The perimeter is the total length of the outside edge of a 2D shape.		 $P = 4 + 8 + 4 + 8$ $= 24 \text{ cm}$	
place holder	The digit zero that is used to maintain the correct place value for all digits.			
prime number (year 5 onwards)	A prime number is a number with exactly two factors: one and the number itself.	2 3 5 7 11	These are some of the prime numbers that are less than 100: 2, 7, 19, 53, 83, 97 All these are integers that have exactly two factors, 1 and the number itself. The definition includes the number 1, which does not have two factors, and is not a prime number.	All prime numbers are odd apart from the number 2. Double digit prime numbers will not be multiples of any of these: 2, 3, 5, 7. For example, 87 is not a prime number because it is a multiple of 3 and therefore has factors that include 1, 87 and 3. Numbers with more than two factors are called composite numbers. 1 is neither prime nor composite as it only has 1 factor.
product (year 3 onwards)	The product is the answer when two numbers are multiplied together.		$2 \times 3 = 6$ The factors here are 2 and 3 and the result of multiplying them is the product (answer).	The factors can be any place value.

quotient (year 3 onwards)	The quotient is the answer to a division calculation.	 $6 \div 2 = 3$	128 divided by 2 = 64 Dividend divided by divisor = quotient	The dividend is 128 which goes inside the bus shelter. Divisor is 2 which goes to the left of the bus shelter and the quotient goes on the top of the bus shelter.
remainder	A remainder is a quantity that is left after carrying out a division calculation.		21 divided by 4 equals 5 with a remainder of 1.	The remainder can never be equal to or greater than the number you are dividing by.
sharing	When items are shared between a known number of groups.			
square number (year 5 onwards)	A square number is a number that is produced by multiplying a number by itself.	 $3^2 = 3 \times 3 = 9$	1 (1x1), 4 (2x2), 9 (3x3) and 16 (4x4) are all square numbers.	
subtrahend	A number to be subtracted from another.	 $13 - 4 = 9$	 $13 - 4 = 9$	
sum/total (year 3 onwards)	The sum or total is the answer when numbers are added together.	 $6 + 2 = 8$	125 + 25 = 150 150 is the total/sum	Be careful to not call calculations 'sums' as a sum or total is the result of an addition calculation.

type 1 fraction (year 3 onwards)	If two fractions have the same denominator, you add or subtract the numerator	1) <table> <tr><td>1</td><td>+</td><td>3</td><td>=</td><td>4</td></tr> <tr><td>5</td><td></td><td>5</td><td></td><td>5</td></tr> </table>	1	+	3	=	4	5		5		5	1) <table> <tr><td>1</td><td>+</td><td>3</td><td>=</td><td>4</td></tr> <tr><td>5</td><td></td><td>5</td><td></td><td>5</td></tr> </table>	1	+	3	=	4	5		5		5																																									
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type 2 fraction (year 5 onwards)	If the denominator of one fraction is a multiple of the other, you need to find an equivalent fraction to solve it.	1) <table> <tr><td>1</td><td>+</td><td>3</td><td>=</td><td></td></tr> <tr><td>4</td><td></td><td>8</td><td></td><td></td></tr> <tr><td colspan="5">(x2) ↓</td></tr> <tr><td>2</td><td>+</td><td>3</td><td>=</td><td>5</td></tr> <tr><td>8</td><td></td><td>8</td><td></td><td>8</td></tr> <tr><td></td><td></td><td></td><td></td><td></td></tr> </table>	1	+	3	=		4		8			(x2) ↓					2	+	3	=	5	8		8		8						1) <table> <tr><td>1</td><td>+</td><td>3</td><td>=</td><td></td></tr> <tr><td>4</td><td></td><td>8</td><td></td><td></td></tr> <tr><td colspan="5">(x2) ↓</td></tr> <tr><td>2</td><td>+</td><td>3</td><td>=</td><td>5</td></tr> <tr><td>8</td><td></td><td>8</td><td></td><td>8</td></tr> <tr><td></td><td></td><td></td><td></td><td></td></tr> </table>	1	+	3	=		4		8			(x2) ↓					2	+	3	=	5	8		8		8						
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type 3 fraction (year 6 onwards)	If the denominator of one fraction is not a multiple of the other, you need to find equivalent fractions for both of them to solve it.	1) <table> <tr><td>1</td><td>+</td><td>1</td><td>=</td><td></td></tr> <tr><td>4</td><td></td><td>3</td><td></td><td></td></tr> <tr><td colspan="2">(x3) ↓</td><td colspan="2">↓ (x4)</td><td></td></tr> <tr><td>3</td><td>+</td><td>4</td><td>=</td><td>7</td></tr> <tr><td>12</td><td></td><td>12</td><td></td><td>12</td></tr> <tr><td></td><td></td><td></td><td></td><td></td></tr> </table>	1	+	1	=		4		3			(x3) ↓		↓ (x4)			3	+	4	=	7	12		12		12						1) <table> <tr><td>1</td><td>+</td><td>1</td><td>=</td><td></td></tr> <tr><td>4</td><td></td><td>3</td><td></td><td></td></tr> <tr><td colspan="2">(x3) ↓</td><td colspan="2">↓ (x4)</td><td></td></tr> <tr><td>3</td><td>+</td><td>4</td><td>=</td><td>7</td></tr> <tr><td>12</td><td></td><td>12</td><td></td><td>12</td></tr> <tr><td></td><td></td><td></td><td></td><td></td></tr> </table>	1	+	1	=		4		3			(x3) ↓		↓ (x4)			3	+	4	=	7	12		12		12						
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unit fraction	A fraction where the numerator is one.		$\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{12}$	
volume (year 5 onwards)	The volume is the amount of space inside a 3D shape.			The term 'capacity' is not to be confused with volume, Capacity is a measure of the maximum amount that a container can hold. Volume refers to the amount of space that a container or object takes up.
<u>Missing Words</u> integer				