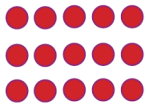
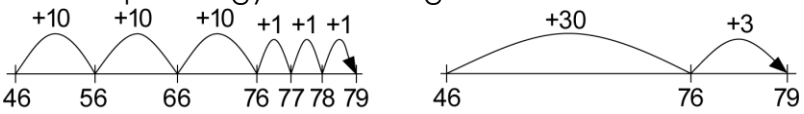
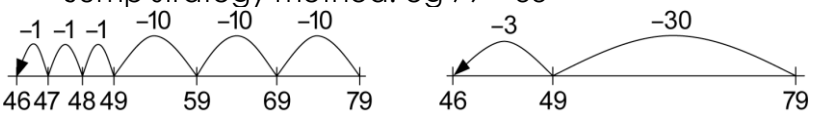
MATHEMATICS GLOSSARY

An explanation of commonly used words and phrases.

WORD	EXPLANATION
Algorithm	The formal written way of adding/subtracting numbers. 234+ 542 776
Array	An array is an ordered collection of objects or numbers. Rectangular arrays are commonly used in primary mathematics. 
Bridging to 10	Breaking up a number so you can add to the nearest tens number first, then add on the rest. Eg 17 + 5: (5 is broken into 3 & 2) 17 and 3 is 20, then add 2 more
Capacity	Capacity is a term used to describe how much a container will hold. It is often used in relation to the volume of fluids. Units of capacity (volume of fluids or gases) include litres and millilitres.
Compensation strategy	Add a few to the question to make it easier, then take that number away again at the end. Eg 63 + 29: 63 + 30 = 93, subtract 1 to obtain 92
Composite number	A number that has a factor other than 1 and itself is a composite number. Eg 20 is a composite number as it has factors of 1, 20, 4, 5. 13 is not a composite number as it only has factors of 1 & 13.
Counting on or back	Counting a collection, or reciting a sequence of number words, from a point beyond the beginning of the sequence. Eg, when a child has counted that there are 6 objects in a collection and is then asked 'How many?' after several more are added, the child might *count on* from 6 saying '7, 8, 9, ...' to reach the total. This is considered a more sophisticated strategy than counting the whole collection from 1. Similarly to subtract, starting from the total and then counting back the correct number of times to subtract and find the new total. Eg, 9 take away 3: Student counts 8, 7, 6.
Denominator	In the fraction a/b, b is the denominator. It is the number of equal parts into which the whole is divided in order to obtain fractional parts. Eg, if a line segment is divided into 5 equal parts, each of those parts is one-fifth of the whole and corresponds to the unit fraction 1/5.
Divide, quotient	Breaking a group or number into equal parts or groups. Finding the quotient means to find the answer to the division question.
Empty number line	A empty line that students can use to demonstrate their strategy, it can start at any number.
Estimate	A reasonable guess based on information or knowledge of the operation/process.
Factors	Numbers that can be multiplied together to give the total. Eg. 1, 10, 4, 5, are factors of 20 (1x10, 4x5).
Figurative	A stage of counting where a student is able to start using visualisation or the representation of numerals to work with numbers. No longer needs to use the counters.
Friends of ten	The pairs of numbers that add together to make combinations to 10. 1 & 9, 2 & 8, 3 & 7, 4 & 6, 5 & 5.
Integer	A whole number.

Inverse operation	An inverse operation is an operation that reverses the effect of the original operation. Addition and subtraction are inverse operations; multiplication and division are inverse operations.
Jump strategy	Jump strategy method: eg 46 + 33  Jump strategy method: eg 79 – 33 
Mean	A word usually used in data and statistics, it is the average.
Minus, difference	Words that indicate subtraction
Near doubles	A strategy where you use the doubles fact to solve a question. Eg 7 + 8 = (double 7 + 1)
Net	The 2D representation of a 3D object. A 3D object unfolded.
Numerator	The top number in a fraction, indicating the number of the parts needed.
One to one correspondence	Being able to say one number word as you touch each object.
Operation	There are four operations: addition, subtraction, multiplication & division.
Partitioning	Dividing a quantity into parts. In the early years it commonly refers to the ability to think about numbers as made up of two parts, eg, 10 is 8 and 2.
Perimeter	The distance around the outside of a shape.
Place value	The value of a digit as determined by its position in a number relative to the ones (or units) place. For integers the ones place is occupied by the rightmost digit in the number. Eg, in the number 2594.6 the 4 denotes 4 ones, the 9 denotes 90 ones or 9 tens, the 5 denotes 500 ones or 5 hundreds, the 2 denotes 2000 ones or 2 thousands, and the 6 denotes 6/10 of a one or 6 tenths.
Prime	A number that only has the factors of one and itself. Eg 13 is a prime number as it only has factors of 13 x 1.
Product, multiply	Words that indicate Multiplication
Split strategy	An addition or subtraction strategy in which the student separates the tens from the units and adds or subtracts each separately before combining to obtain the final answer. Split strategy method: Eg 46 + 33 46+33 =40+6+30+3=40+30+6+3=70+9=79
Subitising	Recognising the number of objects in a collection without consciously counting. Eg instantly recognising the dot pattern on the dice.
Sum, add, altogether	Words that indicate addition
Ten frames	A grid made up of ten boxes, 5 on top, 5 on the bottom. Used to help demonstrate counting, number combinations and partitioning.
Trading $2\overset{3}{\cancel{4}}\overset{1}{5}6 -$ 1385 1071	A process where numbers of higher value and traded into the next place value column to allow operations to be completed. We no longer 'borrow and payback' or 'ten up one down'. In this example there aren't enough tens to subtract 8, so we trade in one of the 4 hundreds leaving 3 hundreds, and give that hundred to the tens column, shown by the 1 next to the 5, meaning we now have 15 tens.