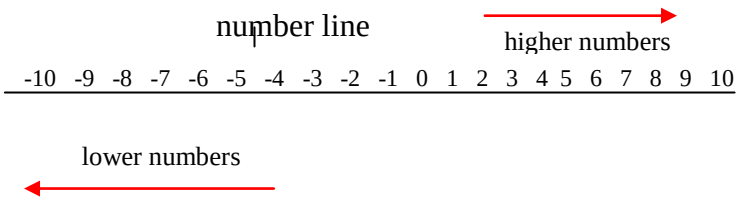
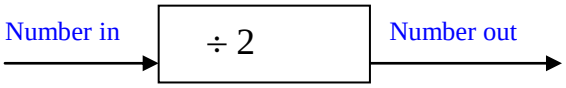
Number

Word	Example/Symbol
add sum total plus altogether	+
take away subtract minus the difference	−
multiply product times lots of groups of	×
divide share equally remainder (rem.)	÷ **6** rem. **1** **4** ⟌ **25**
digit two digit numbers three digit numbers	0 1 2 3 4 5 6 7 8 9 45 17 28 463 274 158
place value thousands hundreds tens units	Thousands Hundreds Tens Units 2 4 1 8
The decimal point is a dot · decimals	tenths ·2 two tenths hundredths ·02 two hundredths thousandths ·002 two thousandths
even numbers odd numbers	0 2 4 6 8 1 3 5 7 9

Number

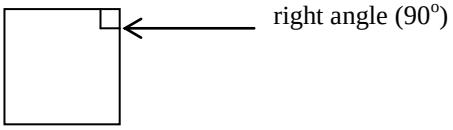
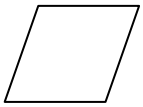
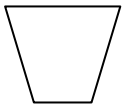
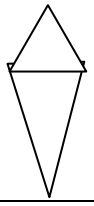
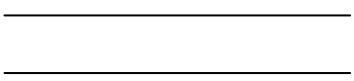
Word	Example/Symbol
doubling halving	Double 5 is 10, double 6 is 12 Half of 10 is 5, half of 12 is 6
negative numbers -4 is a higher number than -7	
Rounding off to the nearest ten to the nearest hundred to the nearest whole number	1, 2, 3, 4 round down 5, 6, 7,8, 9 round up 581 to the nearest 10 is 580 581 to the nearest 100 is 600 13.8 to the nearest whole number is 14
Fractions – when something is divided into equal parts Numerator – how many parts we are talking about Denominator – how many parts altogether	$\frac{3}{4}$ ← numerator denominator
Fractions – to change to a decimal divide the top by the bottom (divide the numerator by the denominator)	Change ¼ to a decimal 1 ÷ 4 = 0·25
Percentage means out of 100	¼ is the same as 0.25 or 25% ½ is the same as 0.5 or 50% ¾ is the same as 0.75 or 75%
Factors – these are numbers that divide exactly into another number	16 ÷ 2 = 8 16 ÷ 4 = 4 16 ÷ 8 = 2 1, 2, 4, 8 and 16 are factors of 16
Prime numbers – these are numbers that do not divide by any other number but 1	2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37 …..

Number

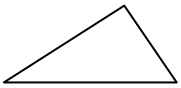
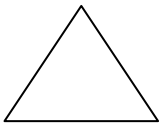
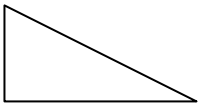
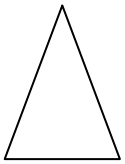
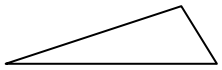
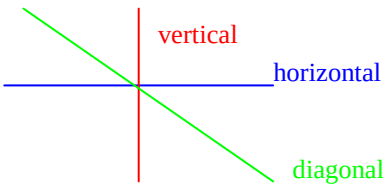
Word	Example/Symbol
Multiples These are in the *times tables*	Multiples of 2 are 2, 4, 6, 8 …… Multiples of 5 are 5, 10, 15, 20 …. Multiples of 8 are 8, 16, 24, 32 …..
Number sequences – lists of numbers that follow a pattern The Rule	3 8 13 23 +5 +5 +5 The rule is add 5 2 4 7 11 16 +2 +3 +4 +5 The rule is add 1 extra each time
Function machine – this follows a rule	 16 → 8
Inverse means the Opposite	The inverse of + is – – is + x is ÷ ÷ is x
Square number - when a number is multiplied by itself 1, 4, 9, 16, 25… are square numbers	1 (1 x 1) 1^2 (one squared) 4 (2 x 2) 2^2 (two squared) 9 (3 x 3) 3^2 (three squared) 16 (4 x 4) 4^2 (four squared) 25 (5 x 5) 5^2 (five squared)
Square root is the inverse of square	The square root of 49 is 7 (7 x 7 = 49)
Cube number – when a number is multiplied by itself three times 1, 8 and 27 are cube numbers	1 x 1 x 1 = 1 1^3 (one cubed) 2 x 2 x 2 = 8 2^3 (two cubed) 3 x 3 x 3 = 27 3^3 (three cubed)
> greater than < less than ≥ greater than or equal to ≤ less than or equal to	23 > 16 16 < 23

Word	Example/Symbol
Brackets – these show which part of the calculation to work out first ( )	$(3+4) \times 5 = 35$ $3 + (4 \times 5) = 23$ Work out the part in brackets first
If there are no brackets then dividing and multiplying comes before adding and subtracting	BODMAS Brackets Over Divide Multiply Add Subtract

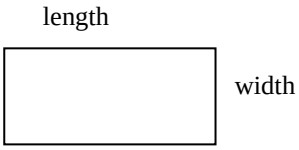
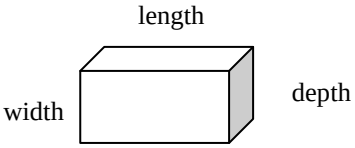
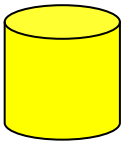
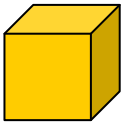
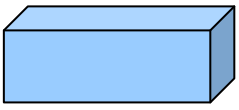
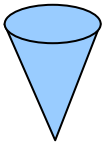
Shapes

Word	Example/Symbol
Quadrilateral – has four sides They have special names.	
Square – 4 sides of equal length 4 right angles	
Rectangle – opposite sides of equal length 4 right angles	
Rhombus – 4 sides of equal length Opposite sides are parallel No right angles	
Parallelogram – opposite sides are the same length and parallel	
Trapezium – these have one pair of parallel sides	
Kite – two pairs of sides next to each other have equal lengths but no parallel sides	
Parallel lines – two straight lines that are always the same distance apart	

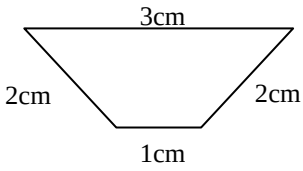
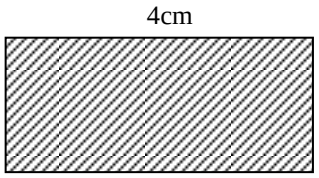
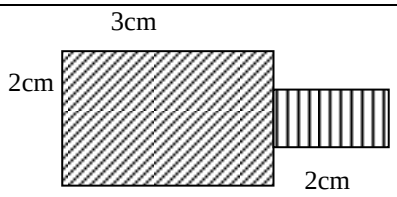
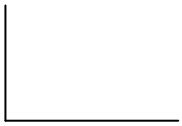
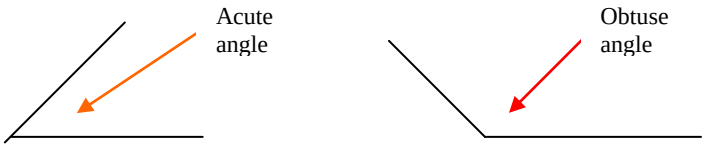
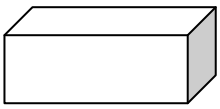
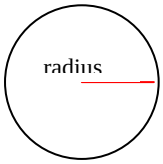
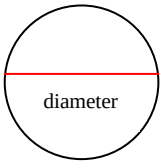
Shapes

Word	Example/Symbol
Triangle – has three sides There are four types of triangles	
Equilateral triangle 3 equal sides 3 equal angles	
Right-angled triangle One angle is a right angle (90º)	
Isosceles triangle Two sides are equal Two angles are equal	
Scalene triangle All 3 sides have different length All 3 angles are different	
Other Polygons Pentagon - 5 sides Hexagon - 6 sides Heptagon - 7 sides Octagon - 8 sides	
Horizontal line – across, on a level Vertical line - upright Diagonal line	

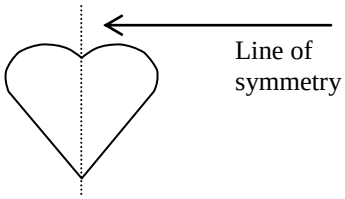
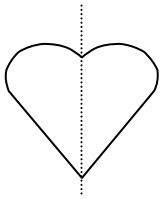
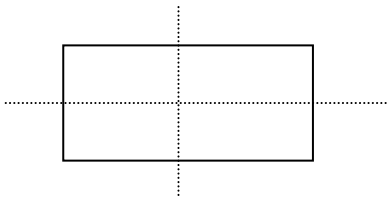
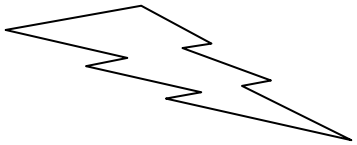
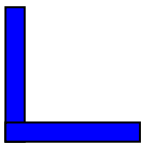
Shapes

Word	Example/Symbol
2D shapes two dimensions – length and width	
3D shapes three dimensions – length, width and depth	
Some 3D shapes Sphere	
Cylinder	
Cube	
Cuboid	
Cone	

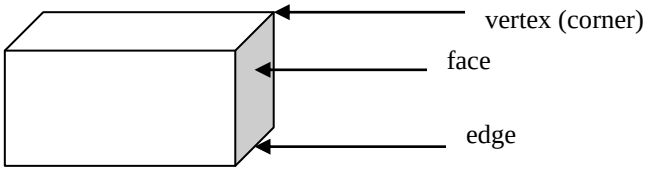
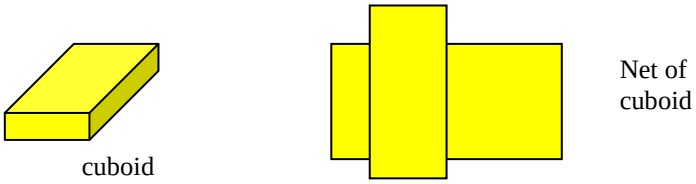
Shapes

Word	Example/Symbol
Perimeter – the distance all around a flat shape Add up the lengths of all the sides	 3+2+1+2 = 8cm
Area – the surface a shape covers Area of a rectangle	 Area = $4 \times 2 = 8cm^2$
Find area of the two shapes and add them up	 $3 \times 2 = 6cm^2$ $2 \times 1 = 2cm^2$ Area = $6 + 2 = 8cm^2$
Angle – a measure of a turn Right angle is 90^0 (90 degrees)	
Acute angle is less than 90^0 Obtuse angle is more than 90^0 but less than 180^0	
Protractor – measures angles	
Volume of a solid shape is the amount of space it takes up. Measured in cubic centimetre – cm^3 cubic metre - m^3	
Circle Radius – halfway across Diameter – right across Circumference – distance around the outside	  circumference

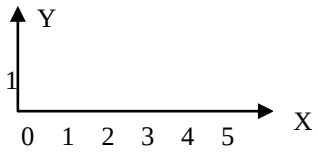
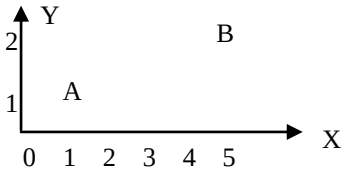
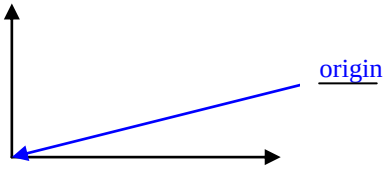
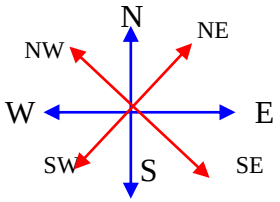
Shapes

Word	Example/Symbol
Symmetry A shape has reflection symmetry when one half of a shape is a reflection of the other half	
One line of symmetry	
Two lines of symmetry	
No lines of symmetry	
Rotational symmetry is rotating the shape into different positions that look exactly the same	
Order of rotational symmetry Order1	
Order 2	
Order 3	

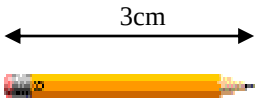
Shapes

Word	Example/Symbol
Face Edge Vertex (vertices)	
Shape net – this folds up to make a 3D shape	

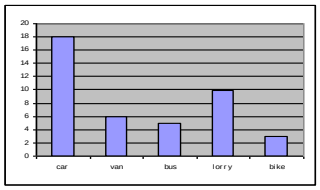
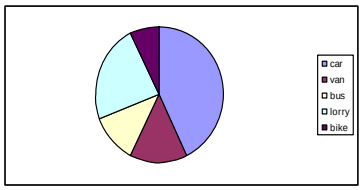
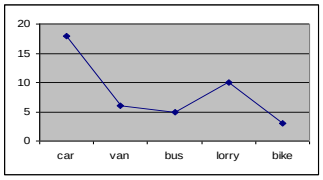
Measurement

Word	Example/Symbol
Co-ordinates – points on a grid A point has two numbers to show its position	
The co-ordinates of A (1, 1) B (5, 2)	
The co-ordinates must be in the right order They are in brackets (X, Y)	
The point(0, 0) is called the origin	
Map References tell you where something is on a map. They are like co-ordinates but may have letters instead of numbers.	
Compass Points – there are 8 main points. North – N South – S East – E West - W	
North West – NW North East – NE South West – SW South East - SE	

Measurement

Word	Example/Symbol
Length – how long something is The pencil is 3cm long	
millimetre - mm centimetre – cm metre – m kilometre - km	10mm = 1cm 100cm = 1m 1000m = 1km
Mass – tells you how heavy something is gram - g kilogram - kg	1000g = 1kg 
Volume is the space that liquid takes up – capacity millilitres – ml litre - L	1000ml = 1L  

Data Handling

Word	Example/Symbol
Tally marks make sure you don't lose count	3 5 4 6
Frequency table shows the tally totals	
Bar Charts	
Pictograms – shows number of things in pictures	Cake sales Chocolate Fruit Other =2cakes
Pie Charts	
Line Graphs	

Data Handling

Word	Example/Symbol
Average – there are all types of averages	mean median mode
Mean is the total divided by how many	1+4+2+5 = 12 total there are 4 numbers 12 ÷ 4 = 3 The mean is 3
Median is the middle value Write all the numbers in order of size. The number in the middle is the median.	0.9 1.6 1.8 2.3 2.7 The median value is 1.8
Mode is the most common value Write all the numbers down in order of size. Find the number that is the most common. This is the mode.	1 3 3 3 5 5 6 9 3 is the most common – This is the mode
Range is the difference between the biggest and smallest number	2 4 4 5 7 7 – 2 = 5 The range is 5
Probability is how likely something is to happen	High probability – is likely to happen Low probability – is unlikely (not likely) to happen Zero probability will never happen
Equal probabilities are when things have the same chance of happening When you toss a coin it is equally likely to be heads or tails	 Even chance of heads or tails 1 in 2 chance of getting heads or tails
With a dice there are 6 possible numbers you can get. They are all equally likely.	The chance of getting a 1 is 1 in 6

Data Handling

Word	Example/Symbol
A 1 in 2 is the same as probability ½, 0.5 or 50%	Write the probability as a fraction and then change it to a decimal or percentage. 1 in 4 becomes ¼ or 0.25 or 25%
Probability lines show what the numbers mean