#### Multiplication and division vocabulary

Term	Definition	Example	
factor	a number that divides exactly	factors of 12 =	
Tactor	into another number	1, 2, 3, 4, 6, 12	
common	factors of two numbers that	common factors of 8 and	
factor	are the same	12 = 1, 2, 4	
prime	a number with only 2 factors:	2 2 5 7 11 12 17 10	
number	1 and itself	2, 3, 5, 7, 11, 13, 17, 19	
composite	a number with more than	12	
number	two factors	(it has 6 factors)	
prime factor	a factor that is prime	prime factors of 12 =	
prime factor	a factor triat is prime	2, 3	
multiple	a number in another	multiples of 9 =	
multiple	number's times table	9, 18, 27, 36	
common	multiples of two numbers	Common multiples of 4	
multiple	that are the same	and 6 = 12, 24	
square	the result when a number	$25 (5^2 = 5x5)$	
numbers	has been multiplied by itself	$49 (7^2 = 7x7)$	
cube	the result when a number has	$8(2^3 = 2x2x2)$	
numbers	been multiplied by itself 3 times	$27 (3^3 = 3x3x3)$	

# Fractions, decimals & percentages

1/100	0.01	1%	÷ 100
1/20	0.05	5%	÷ 20
1/10	0.1	10%	÷ 10
<sup>1</sup> / <sub>5</sub>	0.2	20%	÷ 5
1/4	0.25	25%	÷ 4
1/2	0.5	50%	÷ 2
3/4	0.75	75%	÷ 4, x3
1	1	100%	÷ 1

# **Angles**

360°
180°
90°
< 90°
> 90°
>180°
180°
180°
360°

## **Shape vocabulary**

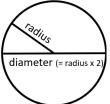
**perimeter** = measure around the edge (**circumference** = perimeter of a circle)

Horizontal line

parallel lines

Vertical line

perpendicular lines (at right angles)



#### **Roman numerals**

1		100	С
5	V	500	D
10	Χ	1000	М
50	L		

# YEAR 6 MATHS KNOWLEDGE ORGANISER

#### 2D shapes

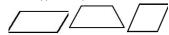
Name	No. of sides
quadrilateral	4
pentagon	5
hexagon	6
heptagon	7
octagon	8
nonagon	9
decagon	10

Polygon = shape with straight sides regular = all sides/angles the same irregular = sides/angles **not** same

#### Types of triangle



## Types of quadrilateral



parallelogram trapezium rhombus

#### AREA

is the amount of space inside a 2D shape usually measured in cm² or m².

#### Area of a triangle

= (base x height)  $\div$  2

## Area of a parallelogram

= base x height
(Height = perpendicular height)

#### **Measurement conversions**

1 centimetre

Month	Days	
January	31	
February	28 (29 in leap year)	
March	31	
April	30	
May	31	
June	30	
July	31	
August	31	
September	30	
October	31	
November	30	
December	31	
1 year = 365 days (≈ 52 weeks)		

Leap year = 366 days

1 metre	100cm	
1 <b>kilo</b> metre	1,000 m	
1 mile	1.6 km	
1 kilometre	0.625 ( <sup>5</sup> / <sub>8</sub> ) mile	
1 <b>kilo</b> gram	1,000 grams	
1 litre	1,000 millilitres	

10mm

## **Co-ordinates**

Read co-ordinates along the x-axis (horizontal) first, then the y-axis (vertical). E.g. (3,-4) = go right 3, down 4.

3D shapes		square-based pyramid	triangular- based pyramid	triangular prism
	faces (the flat sides)	5	4	5
	edges	8	6	9
	vertices (the points where the edges meet)	5	4	6

**Volume** = the amount of space a 3D shape takes up, usually measured in cm<sup>3</sup> or m<sup>3</sup>



**Volume of a cuboid** = length x width x height

#### The mean

The mean is a type of average. To find the mean, add up all the numbers and divide by how many there are. E.g., the mean of 4, 5, 3, 4 is 4. (Because 4 + 5 + 3 + 4 = 16, and  $16 \div 4 = 4$ )