YEAR 4 MATHS KNOWLEDGE ORGANISER

Multiplication and division vocabulary

Term	Definition	Example
factor	a number that divides exactly into another number	factors of 12 = 1, 2, 3, 4, 6, 12
common factor	factors of two numbers that are the same	common factors of 8 and 12 = 1, 2, 4
product	result of two factors multiplied against each other	3 x 5 = <u>15</u>
multiple	a number in another number's times table	multiples of 9 = 9, 18, 27, 36…

Roman numerals

1	I	50	L
5	V	100	C
10	X		

Measurement conversions

Month	Days
January	31
February	28 (29 in leap year)
March	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 **cent**imetre	10mm
1 metre	100cm
1 **kilo**metre	1,000 m
1 **kilo**gram	1,000 grams
1 litre	1,000 **milli**litres

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.

Angles

Acute angle — An angle which measures more than 0°, but less than 90°.

Right angle — An angle which measures exactly 90°.

Obtuse angle — An angle which measures more than 90°, but less than 180°.

Straight angle — An angle which measures exactly 180°.

2D shapes

Name	No. of sides
triangle	3
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

scalene   equilateral   isosceles
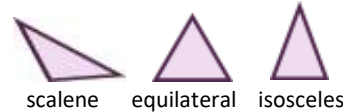
Types of quadrilateral

parallelogram trapezium rhombus
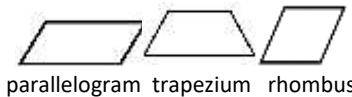
PERIMETER

Is the total distance around a shape.

AREA

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

3D shapes

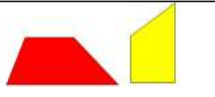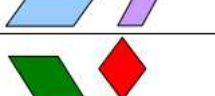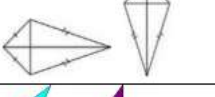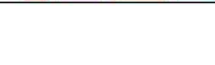|	square-based pyramid	triangular-based pyramid	triangular prism
faces (the flat sides)	5	4	5
edges	8	6	9
vertices (the points where the edges meet)	5	4	6

Fractions & decimals

1/20	0.05	÷ 20
1/10	0.1	÷ 10
1/5	0.2	÷ 5
¼	0.25	÷ 4
½	0.5	÷ 2
¾	0.75	÷ 4, x3
1	1	÷ 1

Equivalent fractions

1/4	2/8	3/12
1/3	2/6	3/9
1/2	2/4	3/6
3/4	6/8	9/12
1/5	2/10	3/15

trapezium	
parallelogram	
rhombus	
rectangles	
kite	
arrowhead	
irregular quadrilaterals	
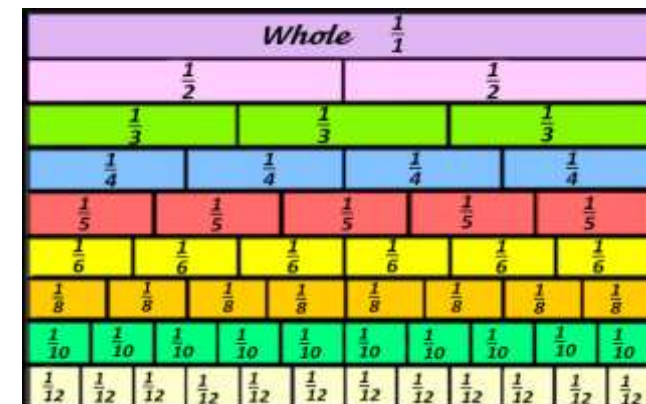
Numerator
Denominator
Equivalent
Fraction
Part
Whole
Equal