Year 5 MATHS KNOWLEDGE ORGANISER

Southway Primary School
The best in everyone

Lines

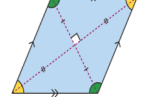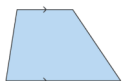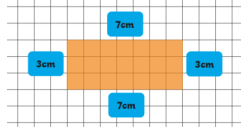| Horizontal	Vertical
————	│
Perpendicular At an angle of 90 degrees	**Parallel** Always having the same distance between two lines

@quadrilaterals

Parallelogram	Rhombus	Trapezium
Two pairs of parallel sides	All sides have the same length and are parallel	One pair of parallel sides

Conversions

10mm = 1cm

100cm = 1m

1,000m = 1km

1,000g = 1kg

1,000ml = 1l
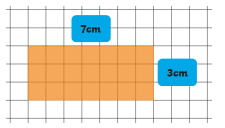
Imperial	Metric
1 inch	2.5cm
1cm	0.39 inch
1 pint	0.57 litres
1 litre	1.75 pints
1 yard	0.91m
1m	1.09 yards
1 lb (pound)	0.45kg
1kg	2.2lb

Perimeter and Area

Perimeter Perimeter is the total length of the outside of a shape

Area The measurement of a surface. Area of a square or rectangle = length x width
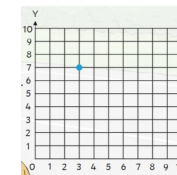
1/100	0.01	1%	÷ 100
1/20	0.05	5%	÷ 20
1/10	0.1	10%	÷ 10
1/5	0.2	20%	÷ 5
1/4	0.25	25%	÷ 4
1/2	0.5	50%	÷ 2
3/4	0.75	75%	÷ 4, x3
1	1	100%	÷ 1

Triangles

Equilateral Triangle	Isosceles Triangle	Scalene Triangle	Right angled triangle
3 equal sides and 3 equal angles of 60°	2 equal sides and 2 equal angles.	No equal sides and no equal angles	One of the angles is a right angle (90°)

Angles

Acute Angle	Right Angle	Obtuse Angle
$< 90°$	90°	$> 90°$ $< 180°$
Less than 90°	Equal to 90°	More than 90° but less than 180°

Full turn = 360°

Half turn = 180°

Angles inside of a triangle = 180°
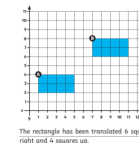
Angles inside of a quadrilateral = 360°

Straight line angle = 180°
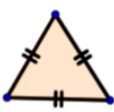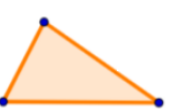
Coordinates

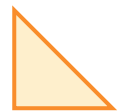Describing position on a grid using X and Y axis

(3,7) X axis first and then the Y axis
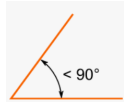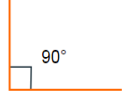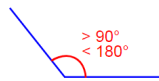
Translation

Describe movements between position units number and left/right, up/down

The rectangle has been translated 6 squares right and 4 squares up.

Square numbers

The product of a number multiplied by itself

Square numbers	Cube Numbers
$1^2 = 1$	$1^3 = 1$
$2^2 = 4$	$2^3 = 8$
$3^2 = 9$	$3^3 = 27$
$4^2 = 16$	$4^3 = 64$
$5^2 = 25$	$5^3 = 125$
$6^2 = 36$	
$7^2 = 49$	
$8^2 = 64$	
$9^2 = 81$	
$10^2 = 100$	
$11^2 = 121$	
$12^2 = 144$	

Cube Numbers The product of a number multiplied by itself twice

Prime Numbers A number with exactly two factors, one and itself 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31...