Mathematics Knowledge Organiser   Y5: Measure and geometry

Measure

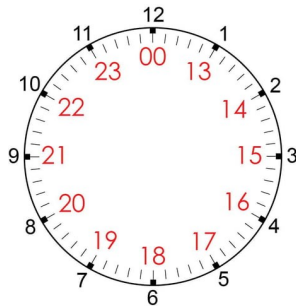| 10mm = 1cm | 1,000g = 1kg |
| 100cm = 1m | 1,000ml = 1L |
| 1,000m = 1km | **METRIC** |

8 km = 5 miles (1 km = 5/8 mile)

1 inch = 2.5cm
1 ounce = 28g
1 pound = 0.45kg   **IMPERIAL**

30 days have September, April, June and November. All the rest have 31, except February, which has 28 days clear, and 29 every leap year!

1 minute = 60 seconds
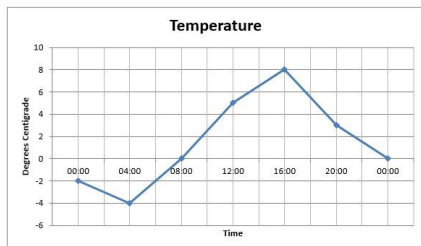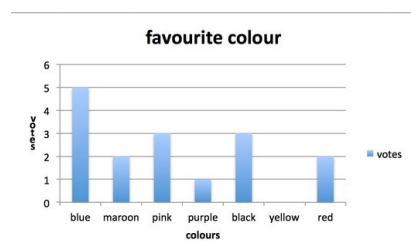
1 hour = 60 minutes

1 day = 24 hours

Add 12

12 hour clock (pm) ⟹ 24 hour clock
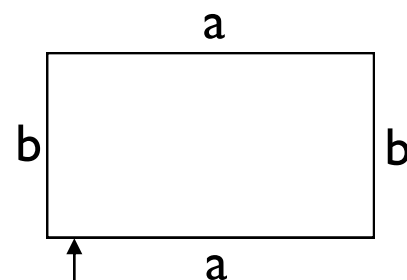
1 year = 365 days = 52 weeks = 12 months

Statistics

Temperature

favourite colour

Line graph shows a trend. E.g. temperature over time.

Bar graph shows categories of data. E.g. favourite colour

Perimeter/Area/Volume

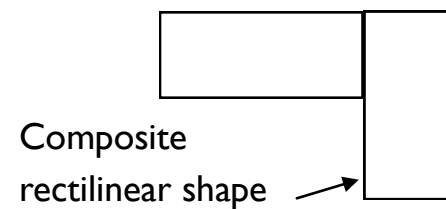**Perimeter** = length around outside

E.g. 2a + 2b (cm/m).

Area = 2D space taken up
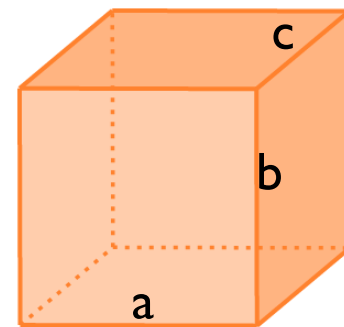
E.g. a × b (cm/m^2).

Rectilinear shape

Total area = area rectangle 1 + area rectangle 2

Composite rectilinear shape

Volume = 3D space taken up

E.g. a × b × c (cm/m^3)

Angles

Acute angle < 90°

Obtuse angle > 90°

Reflex angle > 180°
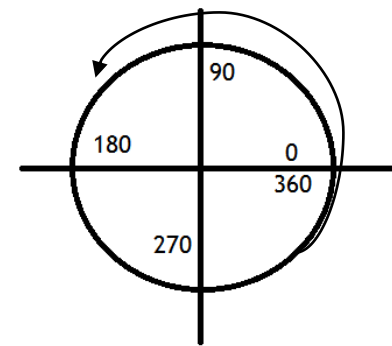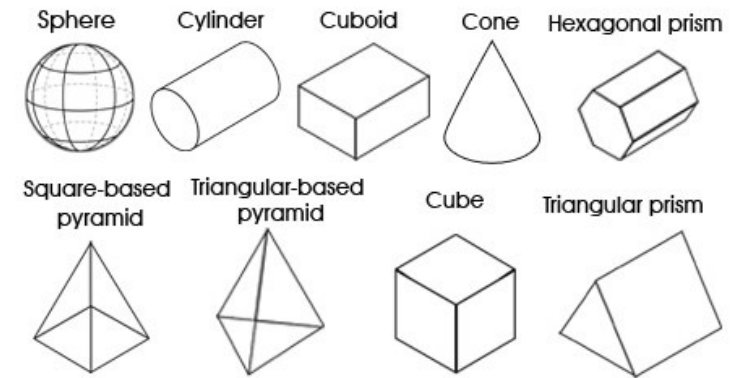
Right angle = 90°

Straight line = 180°

Full circle = 360°

Angles in a rectangle total 360°

Angles in a triangle total 180°

2D/3D shapes

3D— edges, faces, vertices.

2D— sides, angles.

Sphere   Cylinder   Cuboid   Cone   Hexagonal prism

Square-based pyramid   Triangular-based pyramid   Cube   Triangular prism

Rectangles

Four 90° angles

Opposite sides equal and parallel

Two lines of symmetry

Square = a regular rectangle

Regular = All sides/angles equal

Irregular = All sides/angles not equal

Triangles

equilateral
all sides equal
all angles equal

isosceles
two sides equal
angles opposite sides equal

scalene
no sides equal
no angles equal

Position and direction

y-axis

Co-ordinates: (x, y)

x-axis

Translation   Rotation

Reflection