Factorising

Highest Common Factor - The highest value factor that is shared by two or more numbers.

Identity – an equation that is true for all values.
The symbol ≡ is used to show an identity.

Factorise – re-write an expression with brackets by identifying the highest common factor.

Example: $6x + 12 \equiv 6(x + 2)$

Binomials – The sum or difference of two terms e.g. $7x + 3$ or $2x - 7$

Expand – re-write without brackets by doing a multiplication.

Example: $4(x - 2) \equiv 4x - 8$

Quadratic Expression – An expression where the highest power is 2, e.g.

$$x^2 + 5x + 6$$

Conjectures

Conjecture – A statement that has not yet been rigorously proved.

Factors - An integer that divides exactly into a number without a remainder

Multiples – The result of multiplying a number by an integer.

Primes – An integer that is only divisible by one and itself.

Even numbers – Any integer that ends with 0, 2, 4, 6 or 8

Odd numbers – Any integer that ends with 1, 3, 5, 7 or 9

Satisfy – to make something true or correct.
A solution will satisfy an equation if it is correct.

Prove – A method to convince or justify that a certain statement is true.

3D Shapes

Faces - the flat surfaces on a solid 3D shape.

Vertex - a corner where two or more line segments meet. The plural of a vertex is vertices.

Edge - a line segment where two faces meet.

Prism - a 3D shape that has identical end faces, flat faces and the same cross section all along its length.

Polygons - 2D shapes made up only of straight sides.

Plan view - the view of an object from above it.

Side elevation - looking at an object from a side.

Front elevation - looking at an object from the front.

Volume - the amount of space that a 3 dimensional object takes up. It is measured in cubic units e.g. cm³

Surface area - the total area of all faces of a 3 dimensional shape. It is measured in square units e.g. m²

Net - a pattern made up of polygons that you can cut and fold to make a model of a solid shape.

A net can be used to calculate the surface area of a 3D shape.