Foxford Learning Plan

YEAR: 10 Foundation

Topic: Angles

Pythagoras' theorem

Trigonometry

Key Vocabulary

Parallel	(Of lines, planes, or surfaces) side by side and having the same distance continuously between them.
Corresponding	Any pair of angles each of which is on the same side of one of two lines cut by a transversal and on the same side of the transversal.
Alternate	Two angles, formed when a line crosses two other lines, that lie on opposite sides of the transversal line and on opposite relative sides of the other lines. If the two lines crossed are parallel, the alternate angles are equal.
Co-interior	Lies between two lines and on the same side of a transversal.
Pythagoras' Theorem	$a^2 + b^2 = c^2$ C is the longest side.
Opposite	In a right triangle, the hypotenuse is the longest side, an "opposite" side is the one across from a given angle.
Adjacent	The adjacent side is the non-hypotenuse side that is next to a given angle.
Hypotenuse	The side of a right-angled triangle that is opposite the right angle.
Trigonometry	The branch of mathematics dealing with the relations of the sides and angles of triangles and with the relevant functions of any angles.

Key Skills

Over the course of the topic, I will be able to: -

<u>Angles</u>

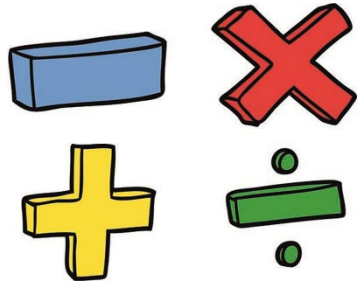
Recognise and solve problems using angles at a point .
Recognise and solve problems using angles at a point on a line.
Establish the fact that angles in a triangle must total 180°.
Solve missing angle problems involving alternate angles.
Solve missing angle problems involving corresponding angles.
Recognise and solve problems using vertically opposite angles.

<u>Pythagoras' theorem</u>

Know and use Pythagoras' theorem.
Calculate the hypotenuse of a right-angled triangle. using Pythagoras' theorem in two dimensional figures.
Calculate one of the shorter sides in a right-angled triangle using Pythagoras' theorem in two dimensional figures.

<u>Trigonometry</u>

know the formulae for: the trigonometric ratios sine, cosine and tan; apply them to find angles and lengths in right-angled triangles … and in two dimensional figures.



I will Understand how to:

1. Use knowledge of alternate and corresponding angles to calculate missing angles in geometrical diagrams.
2. Solve problems using Pythagoras' theorem in two dimensional figures.
3. Know and use the formulae for: the trigonometric ratios sine, cosine and tan; apply them to find angles and lengths in right-angled triangles … and in two dimensional figures.