Birches Head Academy

Part of the Frank Field Education Trust

Year 9 Maths
Learning Programme 4

Reading texts that pupils will study during the learning programme

Loric for LP4 is Initiative

The value we are learning about is **Justice and Integrity**:
Justice - Fair behaviour or treatment
Integrity - Being honest and having strong moral principles

| Problem solving questions on rotation of a shape, enlargement of a shape, Pythagoras' theorem |

What will I be learning about in this Learning Programme?
Rotation & translation, Pythagoras' theorem, enlargement & similarity, proportion.

Where have I seen this learning before?
Coordinates, square and square roots, scale factors

What could I use it for?
in combination with other topics to solve multi step problems in KS3 and KS4.

In LP4.1, I will know: 11/03/24 - (WK 1)	PR Focus	Key Vocabulary	Homework
how to identify the order of rotational symmetry of a shape; how to compare and contrast rotational symmetry with line symmetry; how to rotate a shape about a point on a shape.		rotation	complete mathswatch clip number G7

In LP4.2, I will know: 18/03/24 - (WK 2)	PR Focus	Key Vocabulary	Homework
how to rotate a shape about a point not on a shape; how to translate points and shapes by a given vector; how to compare rotation and reflection of shapes.		Translation, Reflection, Orientation,	complete mathswatch clip number G5

PRT Task 1

In LP4.3, I will know: 08/04/24 - (WK 1)	PR Focus	Key Vocabulary	Homework
how to identify the hypotenuse of a right-angled triangle; how to determine whether a triangle is right-angled; how to calculate the hypotenuse of a right-angled triangle. Extended Task		Hypotenuse, Pythagoras' theorem	complete mathswatch clip number G16

In LP4.4, I will know: 15/04/24 - (WK 2)	PR Focus	Key Vocabulary	Homework
how to calculate missing sides in right-angled triangle; how to use Pythagoras' theorem on coordinate axes; how to explore proofs of Pythagoras' theorem.		Line segment, Midpoint	complete mathswatch clip number G30

In LP4.5, I will know: 22/04/24 - (WK 1)	PR Focus	Key Vocabulary	Homework
how to prepare for an assessment; assessment.			complete mathswatch clip number R10

PRT Task 2

In LP4.6, I will know: 29/04/24 - (WK 2)	PR Focus	Key Vocabulary	Homework
how to recognise enlargement and similarity; how to work out missing sides and angles in a pair of given similar shapes; how to enlarge a shape by a positive integer scale factor. Extended Task		Enlargement, Similar, Scale factor, Centre of enlargement,	complete mathswatch clip number G28

In LP4.7, I will know: 06/05/24 - (WK 1)	PR Focus	Key Vocabulary	Homework
how to enlarge a shape by a positive integer scale factor from a point; how to enlarge a shape by a positive fractional scale factor.		Fractional scale factor	complete mathswatch clip number G28

In LP4.8, I will know: 13/05/24 - (WK 2)	PR Focus	Key Vocabulary	Homework
how to solve problems with direct proportion; how to use direct proportion and conversion graphs; how to solve problems with inverse proportion.		Direct proportion, conversion graph, Inverse proportion	complete mathswatch clip number R8

Resources to support learning:
Students will be given login details by their class teacher. Homework will be linked to clip numbers on this website.

FFET Award Challenge for this Learning Programme:
Attend an extra-curricular club, represent the academy at an event, attend an enrichment day, receive a subject praise postcard, attend a day trip, attend a head of year breakfast or afternoon tea, achieve 100 positive points on class charts, receive a letter of commendation from SLT, be invited to a wonderful Wednesday, receive a principals letter or be invited to a principals lunch, attend a residential trip, achieve the Duke of Edinburgh bronze award.