

OVERVIEW

The Maths department at The Lowry Academy aims to provide students with a secure understanding of mathematical knowledge, categorised according to the following areas: number, algebra, geometry, ratio and proportion, probability, and statistics, meeting the needs of the National Curriculum at KS3 and KS4. The focus of the curriculum is to develop procedural knowledge of the fundamental elements of mathematics in order for students to access further problem solving elements and reason mathematically, whilst fostering a love of maths. By the end of Year 7, students will have developed their mathematical skills within the different areas of Maths (number, algebra, ratio and proportion, geometry, probability and statistics)

AUTUMN

Understand and use place value for decimals. Calculate with negative numbers. Estimate calculations by rounding.

Solve calculations requiring the use of BIDMAS. Use basic rules of algebra. Use concepts and vocabulary with the use of prime numbers, factors, multiples, HCF and LCM. Simplify and manipulate algebraic expressions.

Use addition and subtraction including negative numbers. Calculate and solve problems using perimeter of rectangles and compound shapes. Use multiplication and division. Derive and apply formulae to calculate problems using area of rectangles and triangles.

Assessment

Year 7 students will be given a baseline assessment within Maths. In addition they will also complete the following:

KPI tests (after each topic), feedback sheets (twice per half term) and fluency Friday (fortnightly)

Personal Development

The Maths Department look for opportunities throughout the year to enrich the curriculum through trips and guest speakers.

During each half term there is a Reading to Learn Opportunity, in which we look at the life and work of influential mathematicians and political and equality battles they faced.

SPRING

Express one quantity as a fraction of another where the fraction is less than 1 and greater than 1. Use addition and subtraction appropriately to convert proper and improper fractions and mixed numbers. Compare and order fractions by creating the common denominator.

Interpret fractions as operators. Substitute into formulae. Apply the properties of angles into a range of different contexts (on a line, around a point, in a triangle)

Derive, describe and illustrate the properties of triangles, quadrilaterals and other plane figures successfully.

Assessment

Year 7 students will be given a mid-year assessment within Maths. In addition they will also complete the following:

KPI tests (after each topic), feedback sheets (twice per half term) and fluency Friday (fortnightly)

Personal Development

The Maths Department look for opportunities throughout the year to enrich the curriculum through trips and guest speakers.

During each half term there is a Reading to Learn Opportunity, in which we look at the life and work of influential mathematicians and political and equality battles they faced.

SUMMER

Describe sketch and draw regular polygons and other polygons that are reflectively and rotationally symmetric.

Read and plot coordinates of all 4 quadrants.

Describe, interpret and compare observed distribution of a single variable through the use of the mean.

Enumerate sets of unions using tables, grids and VENN diagrams.

Assessment

Year 7 students will be given an end of year assessment within Maths. In addition they will also complete the following:

KPI tests (after each topic), feedback sheets (twice per half term) and fluency Friday (fortnightly)

Personal Development

The Maths Department look for opportunities throughout the year to enrich the curriculum through trips and guest speakers.

During each half term there is a Reading to Learn Opportunity, in which we look at the life and work of influential mathematicians and political and equality battles they faced.

Useful resources for supporting your child at home

- Corbett Maths
- BBC bitesize
- Maths Genie
- SPARX

Homework

Students will complete weekly homework on SPARX (online platform) Homework is set every Monday and is due in every Monday. SPARX club is available on the Maths corridor during every lunch time and also after school on a Tuesday (L6)