MATHEMATICS CURRICULUM OVERVIEW

Pearson
iLowerSecondary

Pearson Edexcel iLowerSecondary is not just a curriculum, but a complete teaching toolkit.

As well as the English, Mathematics and Science curricula, developed specifically for the international student, a complete suite of teaching support is included as part of the whole-school package.Furthermore, a comprehensive programme of Professional Development support is also available face-to-face, via webinar, and as part of our community forum.

Exemplar schemes of work and mapping enable you to access Pearson's world-renowned teaching resources. In addition fully integrated internal (Progress Tests) and external (Year Nine Achievement Tests) assessments are available, all created through Pearson Edexcel's World Class Qualifications framework.

The iLowerSecondary curriculum is organised into three year groups, each building on the knowledge and skills of the last. Each provides comprehensive learning objectives that ensure clear targets and progression for students. For iLowerSecondary Mathematics, the curriculum contains four main strands, with each split into sub-strands. The curriculum
promotes engagement and enjoyment while ensuring students are well placed to achieve highly in later examinations.
The strands and sub-strands are:

Number

- Integers
- Fractions and Decimals
- Percentages
- Calculation Skills
- Ratio and Proportion
- Standard Form (Year 9)

Algebra

- Expressions and Formulae
- Sequences
- Graphs
- Equations (from Year 8)
- Inequalities (Year 9)

Geometry and Measure

- Measure
- Angles
- Polygons
- Symmetry
- Transformations
- Constructions (Year 9)
- Congruence and Similarity (Year 9)
- Pythagoras' Theorem and Trigonometry (Year 9)

Statistics

- Data
- Charts and Diagrams
- Probability

The curriculum is designed to ensure that key Mathematics skills are properly embedded and that students are secure in their understanding of the concepts
needed to be strong mathematicians. Developed with the needs of second language learners in mind, the iLowerSecondary Mathematics curriculum gives an excellent platform for later learning and ensures students are well-prepared for their International GCSEs learning from Year 10.

On the following pages are examples of objectives from the iLowerSecondary Mathematics curriculum. These cover **Algebra: Expressions and formulae** for Years 7, 8 and 9.

Year 7

Algebra: Expressions and Formulae

- Use letters to represent unknown values
- Write simple expressions using correct algebraic notation and the four operations
- Simplify simple linear algebraic expressions by collecting like terms
- Simplify simple linear algebraic expressions involving multiplication and division
- Expand brackets by multiplying a single positive number term over a bracket
- Substitute positive integers into simple formulae written in words
- Substitute integers into formulae written in letters
- Write simple formulae using letters
- Solve missing number problems and problems involving formulae

Year 8

Algebra: Expressions and Formulae

- Use index notation for algebraic powers
- Simplify simple algebraic expressions involving powers using the index laws
- Expand and simplify expressions involving brackets by multiplying a negative number term, or terms involving letters and numbers, over a bracket
- Factorise expressions
- Substitute values into expressions and formulae involving powers or brackets
- Solve problems involving formulae

Year 9

Algebra: Expressions and Formulae

- Substitute values into expressions and formulae involving powers, roots and brackets
- Write expressions and formulae involving more than one variable
- Substitute values into a formula and find the value of a variable that is not the subject
- Change the subject of a simple formula involving one or two of the four operations
- Expand and factorise expressions involving powers
- Use index notation and index laws for positive and negative integer powers, including 0
- Expand the product of two linear expressions (where both expressions have x coefficient 1)
- Factorise quadratic expressions of the form $x^2 + bx + c$ (where the squared term has the coefficient 1)
- Distinguish between expressions, identities and equations
- Solve problems involving formulae and expressions

Accessing the full programme for iLowerSecondary

Only registered iLowerSecondary centres will be able to access the full programme. If you are not an iLowerSecondary centre and would like find out more then complete our Expression of Interest form on the Pearson Edexcel website.