Cambridge International Resource Plus Mapping

OCR A Level Mathematics A (H240) mapped to resources originally produced for Cambridge International AS and A Level Mathematics (9709)

There are many resources on the Cambridge International Resource Plus site that can be used when teaching OCR A Level Mathematics A. The resources include Teaching Packs (available in PDF and Word formats) containing lesson plans and activity sheets, PowerPoints for use in each lesson, interactive tools, videos and some practice questions.

The Teaching Packs have been written by classroom teachers to help deliver topics and skills that can be challenging. Use these materials to supplement your teaching and engage your students. You can also use them to help you create lesson plans for other skills. This content is designed to give you and your students the chance to explore mathematical skills. It is not intended as specific practice for exam papers.

We have also produced a student version of this Resource Plus course that you can now use more flexibly to teach your students while they aren't in class. Use the student course to:

- Link students directly to materials through your own VLE or web page

- Give students access to materials without exposing the teaching resources

- Allow access to student materials on any device.

Ignore reference that graphical calculators are not permitted: Graphical calculators are permitted in UK A Level Maths but not International.

OCR A Level Mathematics A content	Resources	Notes
Quadratic functions 1.02e Quadratic functions 1.02f Curve sketching 1.02n Inequalities 1.02g	Pure Mathematics 1 : Quadratics	Lesson 1: Completing the square: Recap of GCSE topic.
		Lesson 2: Solving quadratic equations: Recap of GCSE topic and leads into solving disguised quadratic equations.
		Lesson 3: Sketching quadratic functions: Recap of GCSE topic and leads into future work on transforming functions.
		Lesson 4: Solving quadratic inequalities: Although this introduces this concept it does not include the requirement to express solutions in set notation.
Straight lines 1.03a Straight lines 1.03b Straight lines 1.03c Circles 1.03d, 1.03e Circles 1.03f	Pure Mathematics 1 : Coordinate geometry	Lesson 1: Equations of a straight line: Investigates the different standard forms to define a straight line.
		Lesson 2: Parallel, perpendicular or neither: Set of activities to develop confidence with different related sets of lines.
		Lesson 3: Problems with straight lines: Apply the properties of straight lines to problem solving questions.
		Lesson 4: Equations of circles: Develops GCSE circles about the origin to general equation of a circle expressed in either standard form.
		Lesson 5: Problems with circles: Activities to introduce the skills necessary to answer problem solving questions involving circles and lines.

OCR A Level Mathematics A content	Resources	Notes
Trigonometric equations 1.05o Trigonometric equations 1.05o Further Trigonometric identities 1.05l	Pure Mathematics 2: Trigonometry	Lesson 1: Solving Trigonometric equations: Covers the common error of missing solutions by cancelling common factors.
		Lesson 2: Solve equations with multiple/fractional angles: Focuses on identifying all solutions in the defined region.
		Lesson 3: Proving Identities: Focuses on determining whether to work with LHS or RHS as the more straightforward option.
Vectors 1.10a Position vectors 1.10e Problem solving with vectors 1.10g	Pure Mathematics 3: Vectors	Lesson 1: Notation and basics: focus is on 2D but includes notes on 3D.
		Lesson 2: Equation of a line: Links equations of a line to vectors in 2D.
		Lesson 3: Problem solving: links geometrical properties with vectors in 2D.
Newton's first law 3.03a Newton's second law 3.03e Newton's third law 3.03l	Mechanics: Forces and equilibrium	Lesson 1: Forces as vectors: Tackles misconception that resolving forces should only be in x and y directions (stage 2).
		Lesson 2: Forces in equilibrium: Focuses upon how to determine if a system is in equilibrium.
		Lesson 3: Newton's third law: Focus on identifying where forces are acting.
Further Maths	Probability and Statistics 1: Permutations and Combinations	Further Maths.
Further Maths	Probability and Statistics 2: The Poisson Distribution	Further Maths.

For each topic the set of Resource Plus resources can be used before attempting the OCR check in tests.

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