Our Lady Queen of Peace
Catholic High School

Curriculum Overview

YEAR 11 Maths (Foundation)

Careers		
Local Market Information	**Skills**	**Jobs**
Logistics and distribution, manufacturing, engineering, construction, retail, health and social care, business and administration, digital technology, public services.	Problem solving, analytical thinking, logical reasoning, resilience, accuracy, communication, teamwork, decision making, financial literacy, data interpretation, mathematical reasoning, independent learning, organisation, critical thinking, time management.	Engineer, Architect, Surveyor, Electrician, Quantity Surveyor, Data Analyst, Accountant, Computer Programmer, Healthcare Professional, Construction Manager, Logistics Manager, Mechanical Engineer, Scientist, Financial Adviser, Teacher.

	Knowledge & Understanding			Subject Specific Literacy Development	Cultural Capital / Enrichment Opportunities
	Topics (Bigger Picture)	**Knowledge (Key Concepts)**	**Recall & Retrieval Practice Focus**	**Key Vocabulary**	
Half Term 1	Circles, Cylinders, Cones and Spheres	Identify, name and draw parts of a circle Find circumferences and areas enclosed by circles Find radius/diameter, given area/perimeter of a circles Calculate perimeters and areas of composite shapes made from circles and parts of circles Calculate arc lengths, angles and areas of sectors of circles (including halves and quarter circles) Find the surface area and volume of a cylinder Find the surface area and volume of spheres, pyramids, cones and composite solids	Content class specific identified as areas of weakness in the Yr 10 Summer assessments	Tangent – Chord – Circumference – Radius – Diameter –	Engineering and Architecture – Investigating how mathematics is used by engineers and architects to design safe buildings, bridges and structures, using geometry, vectors, similarity and algebra.
	Similarity and Congruence in 2D	Use the basic congruence criteria for triangles Solve angle problems involving congruence Identify the scale factor of an enlargement of a shape as the ratio of the lengths of two corresponding sides Understand the effect of enlargement on perimeter of shapes Solve problems to find missing lengths in similar shapes Know that scale diagrams		Similarity – Congruence – Scale Factor –	
	Vectors	Understand and use column notation in relation to vectors Be able to represent information graphically given column vectors Identify two column vectors which are parallel Calculate using column vectors, and represent graphically, the sum of two vectors, the difference of two vectors and a scalar multiple of a vector.		Vector – Scalar –	

	Knowledge & Understanding			Subject Specific Literacy Development	Cultural Capital / Enrichment Opportunities
	Topics (Bigger Picture)	**Knowledge (Key Concepts)**	**Recall & Retrieval Practice Focus**	**Key Vocabulary**	
	Quadratic Equations	Multiply together two algebraic expressions with brackets Square a linear expression Factorise quadratic expressions of the form $x^2 + bx + c$ Factorise a quadratic expression $x^2 – a^2$ using the difference of two squares Solve quadratic equations by factorising Find the roots of a quadratic function algebraically		Quadratic – Factorise – Roots –	
Half Term 2	Quadratic Graphs	Generate points and plot graphs of quadratic functions Find approximate solutions to quadratic equations using a graph Interpret graphs of quadratic functions from real-life problems Identify and interpret roots, intercepts and turning points of quadratic graphs.	Content identified from fortnightly assessment that is a class specific weakness		
	Rearranging Equations and Graphs of Cubic and Reciprocal Functions	Change the subject of a formula involving the use of square roots and squares Answer 'show that' questions using consecutive integers, squares, even numbers and odd numbers Solve problems involving inverse proportion using graphs, and read values from graphs Find the equation of the line through two given points Recognise, sketch and interpret graphs of simple cubic functions Recognise, sketch and interpret graphs of the reciprocal function $y = 1/x$ with $x \neq 0$; Use graphical representations of inverse proportion to solve problems in context; identify and interpret the gradient from an equation $ax + by = c$;			Students explore how graphs are used to model business performance, profit and population growth. They investigate different graph shapes and use formulae to make predictions and solve problems.
Half Term 3	Simultaneous Equations	Write simultaneous equations to represent a situation Solve simultaneous equations (linear/linear) algebraically and graphically Solve simultaneous equations representing a real-life situation, graphically and algebraically, and interpret the solution in the context of the problem	Mark Maximisers	Unknowns Linear Elimination	Students investigate how event organisers use simultaneous equations to calculate ticket sales, costs and profits. They solve problems involving different ticket types (e.g. adult and child tickets) to determine attendance and income.
	Bespoke Scheme of Work	Content based on Question Level Analysis from Rehearsal Exam 1			
Half Term 4	Bespoke Scheme of Work	Content based on Question Level Analysis from Rehearsal Exam 2	Mark Maximisers		
Half Term 5	Bespoke Scheme of Work	Content based on Question Level Analysis from Rehearsal Exam 2	Mark Maximisers		

Key Assessments			
When	**What will be assessed?**	**Why is this being assessed?**	**How will results be stored & students receive feedback?**
Every 2 weeks throughout yr 11 – 11x Week 1 p	Each exam is approximately 60 marks of a previous GCSE paper sat in order (Paper 1, 2 then 3) focusing on content that has been delivered up to that point in the Foundation GCSE SoW	To allow pupils the most opportunities to see GCSE exam questions as they appear in the actual exams. Areas of strength and development can then be determined	Feedback given Friday Week 1 for both x and y groups. QLA to be generated from Pupil Progress to highlight areas of strength and concern to link in starter activities.
HT2 Week 5 & 6	Year 11 Mock 1 exams – All 3 papers sat in full by pupils	To allow pupils the most opportunities to see GCSE exam questions as they appear in the actual exams. Areas of strength and development can then be determined. To assess the students understanding of the topics taught which will inform the content that makes up the bespoke scheme of work for each class.	Feedback given by staff using their visualiser to demonstrate methods and areas of improvement to pupils. QLA to be generated from Pupil Progress to highlight areas of strength and concern to link in starter activities and help staff identify topics needed to be retaught in the Bespoke content
HT4 Week 3	Year 11 Mock 2 exams – papers to be decided by need, probably a non-calculator and calculator paper.	To allow pupils the most opportunities to see GCSE exam questions as they appear in the actual exams. Areas of strength and development can then be determined. To assess the students understanding of the topics taught which will inform the content that makes up the bespoke scheme of work for each class.	Feedback given by staff using their visualiser to demonstrate methods and areas of improvement to pupils. QLA to be generated from Pupil Progress to highlight areas of strength and concern to link in starter activities and help staff identify topics needed to be retaught in the Bespoke content