Welland Park Academy

Maths KS3 Curriculum Map Year 7-9

		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 9	Focus:	1. Algebra - Linear and Quadratic Expressions 2. Linear Equations 3. Indices 4. Quadratic Equations	5. Standard Form 6. Rearranging Formulae 7. Fractions, Decimals and Bounds	8. Proportion and Scales 9. Angles 10. Pythagoras and Trigo-nometry	11. Substitution 12. Graphs	13. Inequalities 14. Transformations	15. Similarity and Congruency 16. Equations and Simultaneous Equations 17. Area
	Assessment:	Assessment 1		Assessment 2	Assessment 3		End of Year
Year 8	Focus:	Unit 1: Number Unit 2: Area & Volume	Unit 8: Calculating with Fractions	Unit 3: Statistics, Graphs & Charts Unit 4: Expressions & Equations	Unit 6: Decimals & Ratio	Unit 10: Percentages, Decimals & Fractions	Unit 7: Lines & Angles
	Assessment:		Assessment 1	Assessment 2		End of Year	
Year 7	Focus:	1. Expressions 2. Using a Calculator 3. Probability	4. Expanding Brackets 5. Rounding 6. Angles 1 7. Pie Charts 8. Averages 1	9. Factors, multiples, primes and factorising 10. FDP 11. Substitution 12. Decimals	13. Angles 2 14. Averages 2 15. Division	16. Units of Measure 17. Data Handling 18. Representing Data 19. Function Machines 20. Solving Equations	21. Properties of Shapes 22. Area 23. Coordinates and Graphs
	Assessment:	Baseline	Assessment 1	Assessment 2		End of Year	

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Maths KS3 Curriculum Map Year 7-9

Year 7

CEIAG

- Exploration of Maths in real life, making connections to Units of Measure and Areas.
- Statisticians use Averages, Graphs and Charts to analyse results, see patterns in data and predict future trends.

SMSC

- Developing an enquiring mind, a sense of wonder, using logic, problem-solving.
- Articulating and discussing mathematical ideas.
- Ethics around probability and gambling.

Enrichment

- Monthly Maths Mind Twister
- Maths Surgery - one-to-one
- UKMT Junior Maths Challenge

Year 8

CEIAG

- Area, Perimeter and Volume used by Designers and Engineers, who need to know exact areas and volumes when designing projects.
- Percentages, Decimals and Fractions used in Business and Retail, to calculate percentage profit and discounts on their products.
- Statisticians use Averages, Graphs and Probability to analyse results, see patterns in data and predict future trends.

SMSC

- Describing and modelling reality.
- Learning to look out for misleading graphs and charts.

Enrichment

- Monthly Maths Mind Twister
- Maths Surgery - one-to-one
- UKMT Junior Maths Challenge

Year 9

CEIAG

- Percentages used by a Sports Analyst to measure performance and track improvement and also in the Financial Sector, to calculate investment performance, borrowing and lending costs.
- Interest and depreciation calculations covered in Percentages.
- Standard Form used by Scientists when working with molecules and atoms, and Astronomers to measure large distances in space.
- Financial officers use Formulae to work out pricing structures for car hire, gas/electricity pricing.

SMSC

- Using logic and mathematical reasoning to tackle problems faced in real life.

Enrichment

- Monthly Maths Mind Twister
- Maths Surgery - one-to-one
- Problem-solving
- UKMT Intermediate Maths Challenge

Maths KS4 Curriculum Map Year 10

	Pathway		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 10	GCSE Higher	Focus:	Unit 5: Trigonometry Unit 6: Graphs	Unit 7: Area & Volume	Unit 8: Transformations & Constructions	Unit 9: Equations & Inequalities	Unit 10: Probability	Unit 11: Multiplicative Reasoning
		Assessment:	End of Unit Assessments Mock Assessments—March and June					
	GCSE Foundation	Focus:	Unit 6: Equations, Inequalities & Sequences	Unit 7: Averages & Range Unit 8: Perimeter, Area & Volume 1	Unit 9: Graphs	Unit 10: Transformations	Unit 11: Ratio & proportion	Unit 12: Right-angled Triangles
		Assessment:	End of Unit Assessments Mock Assessments—March and June					

CEIAG

- Transformations / Enlargement used by Designers, who draw plans to scale.
- Pythagoras and Trigonometry used in navigation by Sailors to calculate distances and bearings and by Surveyors and Architects to calculate angles and lengths.
- Area calculations required for decorating, whether painting, tiling or laying carpets.
- Statisticians use Averages, Graphs and Probability to analyse results, see patterns in data and predict future trends. Linked to Sciences and Geography at 'A' level and University degrees.

SMSC

- Harder problem-solving and real-life applications.
- Recognising bias and misleading graphs and questionnaires.
- Multiplicative reasoning used to determine best value for money.

Enrichment

- Monthly Maths Mind Twister
- Maths Surgery - one-to-one
- UKMT Intermediate Maths Challenge

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Maths KS4 Curriculum Map Year 11

	Pathway		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1&2
Year 11	Higher	Focus:	Unit 12: Similarity & Congruence Unit 13: Further Trigonometry	Unit 14: Further Statistics Unit 15: Equations & Graphs	Unit 16: Circle Theorems Unit 17: More Algebra	Unit 18: Vectors & Geometric Proof Unit 19: Proportion & Graphs	Revision & Exam Preparation GCSE Examinations
		Assessment:		Mock Examinations: November & March			
	Foundation	Focus:	Unit 13: Probability Unit 14: Multiplicative Reasoning	Unit 15: Constructions, Loci & bearings Unit 16: Quadratic Equations & Graphs	Unit 17: Perimeter, Area & Volume 2 Unit 18: Fractions, Indices & Standard Form	Unit 19: Congruence, Similarity & Vectors Unit 20: More Algebra	
		Assessment:		Mock Examinations: November & March			

CEIAG

- Architects and Designers produce accurate plans using Construction techniques.
- Standard Form used by Scientists when working with molecules and atoms, and Astronomers to measure large distances in space.

SMSC

- Discovering proofs, seeking truth, articulating with logical reasoning/argument.
- Understanding financial terms through finance day

Enrichment

- Monthly Maths Mind Twister
- Maths Surgery: one-to-one
- Finance Day
- Boost and A-Level taster sessions
- GCSE Statistics
- Level 2 Further Maths