Watling Academy - Maths- Learning Journey

A-Level

Revision and recap
Preparation for GCSE's

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Transformations
Transformation of functions
Vectors, Loci, Proof
Ethos: STEM
Habits: Making links and applying knowledge, imagining, innovating and creating

Circle Theorems
Functions
Graphs
Ethos: STEM, Sustainability
Habits: Making judgements, problem-solving

Quadratics
Simultaneous Equations
Inequalities
Direct and Inverse Proportion
Ethos: STEM
Habits: Concentrating, making links, perseverance

Linear graphs and sequences
Equation of a circle
Surds
Probability
Ethos: STEM
Habits: making links, resilience, communication

GCSE Year 11 Higher

GCSE Year 10

Brackets
Solve and rearrange equations
Quadratics
Ethos: STEM
Habits: resilience, making link, communicating, reasoning

Indices and standard form
Rounding, estimation and bounds
Fractions, decimals and ratio
Ethos: STEM, Milton Keynes
Habits: problem-solving, creating, imagining and innovating

Area, surface area and volume
Percentages, growth and decay
Ethos: STEM
Habits: Problem-solving, making links, resilience

Similar shapes
Pythagoras
Trigonometry
Ethos: STEM
Habits: Problem-solving, noticing, making links

Angles and bearings
Ethos: STEM, Milton Keynes
Habits: Making links and applying knowledge, noticing

Compound units and real life graphs
Charts and graphs
Ethos: STEM, Sustainability, Milton Keynes
Habits: collecting, using and distilling data, reasoning

KS3 Year 9

Pythagoras and Trigonometry
Area and volume
Surface area, plans and elevations
Ethos: Sustainability, Milton Keynes
Habits: Creating, imagining and innovating, noticing

Measures and compound units
Similar shapes
Ethos: STEM
Habits: Making links, resilience, problem solving

Ratio notation, Angles
Percentages
Charts and graphs
Ethos: STEM, Sustainability, Milton Keynes
Habits: Problem solving, making links and applying knowledge

Directed numbers
Standard form
Fractions
Loci
Ethos: STEM
Habits: noticing, problem solving, making links, thinking

Rounding, estimation and bounds
Solving equations
Averages
Ethos: STEM, Milton Keynes
Habits: collecting and using data, resilience, communication

Algebraic notation
Sequences
Graphs (linear and quadratic)
Properties of Number
Ethos: STEM, Milton Keynes
Habits: resilience, making links, noticing

KS3 Year 8

Directed numbers
Algebraic notation (brackets)
Sequences
Coordinates and linear graphs
Ethos: STEM
Habits: resilience, making links, questioning, noticing

Properties of Number
Transformations
Measures
Area
Ethos: STEM
Habits: Noticing, questioning, making links, problem solving

Calculations involving fractions
Probability
Solving equations
Ethos: Milton Keynes
Habits: Creating, reasoning, problem solving

Percentages
Ratio
Rounding and estimation
Ethos: STEM, Sustainability
Habits: Making links, thinking, creating

Angles
Plans, elevations and surface area
Ethos: STEM, Sustainability
Habits: Problem solving, making judgements, noticing

Volume, Charts and graphs
Averages
Ethos: STEM, Milton Keynes, Sustainability
Habits: Collecting, using and distilling data

KS3 Year 7

Sequences, Ratio Notation
Probability
Angles
Ethos: STEM, Sustainability
Habits: Reasoning, analysis, research

Averages, calculations involving fractions and
Ethos: STEM, Milton Keynes
Habits: Thinking, reasoning, problem solving

Algebraic thinking, Solving equations
Properties of shape
Ethos: STEM, Sustainability, Milton Keynes
Habits: Reasoning, communication, noticing, listening

Properties of number, Directed Numbers
Perimeter, Area
Ethos: STEM, Milton Keynes
Habits: Problem solving, reasoning, communication

FDP, 4 operations., measures, place value and standard form
Ethos: STEM
Habits: problem solving, perseverance, noticing, making links

Project: How to make a profit running a shop in Centre MK
Charts and graphs
Ethos: Sustainability, Milton Keynes
Habits: Problem solving, research, planning