Compass School Southwark

Mathematics Curriculum – Year 10 - 11
2022-2023

Getting GCSE Ready – Students in Set 4

UNIT 1: Number, powers, roots, decimals and rounding to 10,100,1000

- 1a Integers and place value
- 1b Decimals
- 1c Indices, powers and roots
- 1d Factors, multiples and primes

UNIT 2: Fractions, decimals and percentages

- 2a Fractions
- 2b Percentages
- 2c Fractions, decimals and percentages

UNIT 3: Drawing and interpreting tables and charts

- Time & timetables
- Tables (data collection)
- Questionnaires
- Pictograms
- Line Graphs
- Bar charts
- Stem & Leaf

UNIT 4: Mensuration & Properties of 2D shapes

- Measurement and units
- Circles
- 2D Shapes
- Symmetry
- Simple constructions

UNIT 5: Perimeter and area, Angles, 3D forms shapes

- Perimeter & Area
- Simple Angle Facts
- 3D Forms

UNIT 6: Expressions & substituting into simple formulae

- 6a Algebra: the basics
- 6b Expressions and substitution into formulae

UNIT 7: Probability .

- 7a Probability Scale
- 7b Theoretical Probability.

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Foundation Topics – All students

Unit	Topic
01	Two Way Tables
02	Frequency Trees
03	Rounding and Error Intervals
04	Estimation
05	Use of Calculator
06 / 07	Product of Primes/HCF/LCM
08	Real-life Multiples
09 / 10	Fractions
11 / 12	Ratio
13	Direct Proportion
14 15 16	Proportion - Best Value
	Proportion - Recipes
	Proportion - Exchange Rates
17	Inverse Proportion
18 / 19	Percentages
20 / 21	Interest and Growth
	Depreciation and Decay
22	Reverse Percentages
23	Index Laws
24	Expand and Simplify
25	Sequences
26	Inequalities

Unit	Topic
27	Solving Equations
28 / 29	Forming and Solving Equations
30 / 31	Factorising
32	Changing the Subject
33 / 34	Standard Index Form
35	Angles in Parallel Lines
36	Interior and Exterior Angles
37	Plans and Elevations
38	Constructions and Loci
39	Bearings
40 - 45	Pythagoras' Theorem
	Trig - Finding Sides
	Trig - Finding Angles
	Trig - Non Calculator
	Pythagoras with Trig
46 - 48	Circles
	Arcs and Sectors
49 / 50	Surface Area and Volume
51	Sampling
52	Averages
53 / 54	Averages from a Table
	Averages from Grouped Data

Unit	Topic
55	Frequency Diagrams
56	Scatter Graphs
57	Time Series
58	Pie Charts
59 / 60	Coordinate Geometry
61	Straight Line Graphs
62	Non-linear Graphs
63 / 64	Speed, Distance, Time
	Compound Measures
65	Real-life Graphs
66 / 67	Congruence
	Similar Shapes
68 - 72	Reflections
	Rotations
	Translations
	Enlargements
	Combined Transformations
73	Vectors
74	Probability from a Table
75 / 76	Probability Trees
77	Venn Diagrams
78 / 79	Simultaneous Equations

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Higher Paper Topics – Students in Set 1

Unit	Topic	Unit	Topic
1	a. Recurring fractions	10	Similarity in 2D & 3D
	b. Fractional/negative indices	11	a. Graphs of trig functions
	c. Product rule		b. Further trigonometry
	d. Upper & lower bounds	12	a. Sampling
	e. Surds including rationalising		b. Cumulative frequency & box plots
2	a. Expanding & factorising		c. Histograms
	b. Rearranging equations	13	a. Using graphs of circles, cubes and quadratics
	c. Sequences (including quadratics)		b. Gradient and area under graphs
3	Coordinate geometry	14	Circle geometry – gradients/tangents
4	Surface area & volume - cylinders, cones, spheres & frustums	15	Circle theorems
5	Transformations	16	Algebraic fractions
6	Quadratics including the formula & iteration	17	Functions
7	Simultaneous equations	18	Algebraic Proof
8	Conditional probability	19	Congruence and geometric proof
9	Direct and inverse proportion	20	Vectors

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