BROOKFIELD COMMUNITY SCHOOL

COMMITTED TO EXCELLENCE

Y11 Study Skills Evening 2024 Mathematics

Part Of The
REDHILL ACADEMY TRUST
Exsisto Optimus

Mathematics – essential information

- Three papers – all 80 marks, 90 minutes.

- Paper 1 is non-calculator, 2 & 3 are calculator.

- Formula sheet NOT provided.*

- AQA exam board.

Mathematics – ongoing revision throughout the year

- Bespoke do it now tasks based on prior performance and key topics every lesson.

- Topic tests written from past exam questions, teacher marked and with time devoted to fixing any errors.

- Past paper homework – half a past paper per week to be completed and reviewed live in class every Friday. These can be used to identify areas of weakness.

Mathematics – making revision effective

- Using revision lists (Corbett maths).

- Using books/topic tests.

- Using feedback from the mocks.

Mathematics – going the extra mile

- Using revision lists (Corbett maths).

- Will be shared with students to support independent revision.

GCSE Foundation Tier
AQA
Checklist

Left column:

Angle Facts - Video 35, 30, 34, 39
Types of Angle - Video 38
Angles in Parallel Lines - Video 25
Angles in a Triangle - Video 37
Angles in a Quadrilateral - Video 33
Angles in Polygons - Video 32
Bearings - Videos 26, 27
Scales & Maps - Video 283
Perimeter - Video 241
Area of Rectangles/Triangles - Videos 45, 49
Area of a Trapezium - Video 48
Units - Videos 347, 349
Sensible Estimates - Video 285
Line Symmetry - Video 316
Rotational Symmetry - Video 317
Constructions - Videos 72, 78, 83
Loci - Videos 75, 76, 77
Faces, Edges, Vertices - Videos 5, 3
Nets - Video 4
Views and Elevations - Video 354
Time Calculations - Video 322
Timetables - Video 320
Distance Charts - Video 318
Speed, Distance, Time - Video 299
Travel Graphs - Video 171
Density - Video 384
Pressure - Video 385
Translations - Video 325, 326
Reflections - Videos 272, 273
Rotations - Video 275
Enlargements - Videos 104, 105, 107
Parts of the Circle - Video 61
Circumference - Video 60 , 243
Area of a Circle - Video 59, 47
Arc Length - Video 58
Area of a Sector - Video 46
Volume of a Cylinder - Video 357
Pythagoras - Video 257
Trigonometry - Videos 329, 330, 331
Exact Trig Values - Video 341
Similar Shapes (sides) - Video 292
Congruent Triangles - Video 67
Volume of a Cuboid/Prism - Video 355, 356
Volume of a Sphere/Cone - Videos 359, 361
Surface Area - Video 310
Surface area of Sphere/Cone - Videos 313, 314
Vectors - Video 353a, 353

Middle column:

Multiplication - Video 199, 200
Division - Video 98
Addition - Video 6
Subtraction - Video 304
Rounding - Video 276, 277a, 277b, 278, 280
Estimation - Video 215
Order of Operations - Video 211
Ordering Decimals - Video 95
Arithmetic with Decimals - Videos 90, 91, 92, 93, 94
Multiples and Factors - Videos 220, 216
Prime Numbers - Video 225
Square Numbers and Square Roots - Videos 226, 228
Cube Numbers and Cube Roots - Videos 212, 214
Product of Primes - Video 223
LCM/HCF - Videos 218, 219, 224
Indices - Videos 172, 174
Negative Indices - Video 175
Standard Form - Video 300, 302, 303
Fractions of Amounts - Video 137
Adding Fractions - Video 133
Multiplying Fractions - Video 142
Dividing Fractions - Video 134
Reciprocals - Video 145
Fractions, Decimals, Percentages - Videos 121 to 129
Expressing as Fraction or % - Videos 136, 237
Percentages of Amounts - Videos 234, 235, 238
Percentage Change - Video 233
Simple Interest - Video 236a
Compound Interest - Video 236
Reverse Percentages - Video 240
Ratio - Videos 269, 270, 271
Currency - Video 214a
Recipes - Video 256
Negative Numbers - Videos 205-209
Place Value - Video 222 , 222a
Error Intervals - Video 377
Money - Video 400
Best Buys - Video 210
Proportion - Videos 255a, 254
Use of a Calculator - Video 352

Corbett maths

Right column:

Tally Charts - Video 321
Frequency Trees - Video 376
Two-way Tables - Video 319
Pictograms - Videos 161, 162
Bar Charts - Videos 147, 148
Line Graphs - Video 160
Pie Charts - Video 163, 164
Probability - Videos 245, 246, 248
Relative Frequency - Video 248
Listing Outcomes - Video 253
Scatter Graphs - Videos 165 to 168
Averages & Range - Videos 56, 50, 53, 57
Mode: Frequency Table - Video 56a
Median: Frequency Table - Video 51
Combined Mean - Video 53a
Estimated Mean - Video 55
Venn Diagrams - Video 380
Tree Diagrams - Video 252
Reading Tables - Video 387
Samples - Video 281a
Coordinates - Video 84
Function Machine - Video 386
Writing Expressions - Video 16
Collecting Like Terms - Video 9
Multiplying & Dividing Terms - Videos 18, 11
Laws of Indices - Video 174
Sequences - Videos 286, 287, 290, 287a
Geometric Progressions - Video 375
The nth Term - Video 288
Expanding Brackets - Videos 13, 14
Factorising - Video 117
Factorising Quadratics - Videos 118, 120
Solving Equations - Video 110, 113, 266
Forming Equations - Videos 114, 115
Inequalities - Videos 177, 178, 179
Conversion Graphs - Video 151
Drawing Linear Graphs - Video 186
$y = mx + c$ - Video 191
Gradient - Video 189
Real Life Graphs - Video 171a
Parallel graphs - Video 196
Substitution - Video 20
Changing the Subject - Video 7
Simultaneous Equations - Videos 295, 297
Quadratic Graphs - Video 264
Cubic Graphs - Video 344
Reciprocal Graphs - Video 346

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www.corbettmaths.com/contents

GCSE Higher Tier Checklist
AQA
Corbett maths

Column 1 (red):
Adding Fractions - Video 133
Multiplying Fractions - Video 142
Dividing Fractions - Video 134
Reciprocal - Video 145
Decimals - Video 90, 91, 92, 93, 94
Use of a Calculator - Video 352
Estimation - Video 215
Best Buys - Video 210
Currency - Video 214a
Conversion Graphs - Video 151, 152
LCM/HCF - Videos 218, 219
Product of Primes - Videos 223, 224
Indices - Videos 172, 174
Indices (fractional/negative) - Videos 173, 175
Standard Form - Videos 300, 301, 302, 303
Percentages of Amounts - Videos 234, 235, 238
Percentage change - Video 233
Simple Interest - Video 236a
Compound Interest - Video 236
Reverse Percentages - Video 240
Recurring Decimals to Fractions - Video 96
Ratio - Videos 270, 271, 271a, 271b, 271c
Direct Proportion - Video 254
Inverse Proportion - Video 255
Proportional Graphs - Video 255b
Proportion (application) - Video 255c
Limits of Accuracy - Videos 183, 184
Surds - Videos 305, 306, 307, 308
Product Rule for Counting - Video 383
Error Intervals - Video 377, 280

Column 1 (blue):
Collecting Like Terms - Video 9
Expanding Brackets - Videos 13, 14, 15
Factorising - Video 117
Factorising Quadratics - Videos 118, 119, 120, 119a
Algebraic Fractions - Videos 21, 22, 23, 24
Sequences (nth term) - Videos 288, 289
nth term (quadratics) - Video 388
Substitution - Video 20
Equations - Videos 110, 113, 114, 115
Changing the Subject - Videos 7, 8
Inequalities - Videos 177, 178, 179
Inequalities (Regions) - Video 182
Quadratic Inequalities - Video 378
Linear Graphs - Videos 191, 186, 189, 194
Midpoint of a Line - Video 198
Distance between 2 points - Video 185
Real-life Linear Graphs - Video 171a
Parallel or Perpendicular Lines - Videos 196, 197
Simultaneous Equations - Video 295
Non-linear Simultaneous Equations - Video 298
Graphical Simultaneous Equations - Video 297

Column 2:
Angles in Parallel Lines - Video 25, 39
Bearings - Video 26, 27
Angles in Polygons - Video 32
Constructions - Video 78, 72, 79, 80, 70
Loci - Videos 75, 76, 77
Views - Video 354
Area of a Trapezium - Video 48
Circumference - Video 60
Area of a Circle - Video 40
Arc Length - Video 58
Area of a Sector - Video 48
Volume of a Cylinder - Video 357
Pythagoras - Video 257, 259
Trigonometry - Videos 329, 330, 331
3D Trig and Pythagoras - Videos 259, 332
Exact Trig Values - Video 341
Volume of a Prism - Video 356
Volume of Cone/Pyramid/Sphere - Videos 359-361
Volume of a Frustum - Video 360a
Surface Area of a Prism - Video 311
Surface Area of Cone/Sphere - Videos 314, 313
Metric Units (area/volume) - Videos 350, 351
Translations - Video 325
Reflections - Video 272
Rotations - Video 275
Enlargements - Videos 104, 106, 107, 108
Similar Shapes - Videos 292, 293a, 293b
Circle Theorems - Videos 64, 65
Sine Rule - Video 333
Cosine Rule - Videos 335, 336
1/2abSinC - Video 337
Vectors - Video 353
Column Vectors - Video 353a
Travel Graphs - Video 171
Speed, Distance, Time - Video 299
Density - Video 384
Pressure - Video 385
Geometric Proof - Video 366
Congruent Triangles - Video 67
Invariant Points - Video 392

Column 3 (orange):
Frequency Trees - Video 376
Two-way Tables - Video 319
Pie Charts - Videos 163, 164
Scatter Graphs - Videos 165, 166
Histograms - Video 157, 158, 159
Cumulative Frequency - Videos 153, 154
Box Plots - Video 149
Quartiles - Video 57a
Estimated Mean - Video 55
Combined Mean - Video 53a
Median (frequency table) - Videos 51, 52
Modal class (frequency table) - Video 56a
Probability - Video 250
Relative frequency - Video 248
Samples - Video 281a
Tree Diagrams - Video 252
Conditional Probability - Video 247
Venn Diagrams - Video 380

Column 3 (blue):
Equation of a Circle - Video 12
Equation of a tangent - Video 372
Instantaneous rates of change - Video 390a
Average rates of change - Video 390b
Area under a curve - Video 389
Composite Functions - Video 370
Inverse Functions - Video 369
Quadratic Graphs - Video 264
Solving Quadratics Graphically - Videos 367c, 367d
Sketching Quadratics - Video 265
Trigonometric Graphs - Videos 338, 339
Cubic Graphs - Video 344
Reciprocal Graphs - Video 346
Exponential Graphs - Video 345
Geometric Sequences - Video 375
Algebraic Proof - Video 365
Quadratic Formula - Video 267
Completing the Square - Video 10, 371
Transformations of Graphs - Video 323, 324
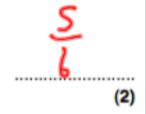Identities - Video 16a
Iteration - Video 373, 373a, 373b

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Mathematics – going the extra mile

- Focus on content you have been taught – use the videos and worked solutions to support you.

1. Work out, as a simplified fraction.

$$\frac{3}{4} + \frac{1}{12}$$

.... (2)

1. Work out, as a simplified fraction.

$$\frac{3}{4} + \frac{1}{12}$$

$$\frac{9}{12} + \frac{1}{12} = \frac{10}{12} = \frac{5}{6}$$

$$\frac{5}{6}$$

.... (2)

Mathematics – going the extra mile

- Use your books and topic tests to support you.

- Every topic test is written from past paper questions, broken down by skill and scored as a percentage to help you compare and prioritise.

- Students complete personalised feedback after every topic test.

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Mathematics – going the extra mile

Mathematics – going the extra mile

Mathematics – going the extra mile

- Using feedback from your mocks effectively is crucial for continuing to improve all the way up to the final exams in the summer.

- Every student will have received personalised feedback corresponding to videos for support in that area of the curriculum.

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Mathematics – going the extra mile

Questions	Topic	Score		Sparx Code
	Mathematics Assessment Feedback			
Paper	November 2019 Paper 1F			
Name	Joe Bloggs			
Teacher	Mr Stewart			sparx
1	Understanding and ordering decimals	1	1	U435
2	Solving equations with one step	1	1	U755
3	Fractions, decimals and percentages	0	1	U594,U888
4	Calculating with roots and powers	1	1	U851
5	Using a written method to multiply integers	1	3	U127
6a	Interpreting bar charts	0	1	U557
6b	Interpreting bar charts	1	1	U557
6c	Interpreting bar charts	1	1	U557
6d	Drawing bar charts	2	2	U363
7a	Using a written method to divide with decimals	1	1	U868
7b	Multiplying and dividing with place value, Using a written method to multiply decima	1	1	U735,U293
8a	Adding and subtracting decimals	2	2	U478
8b	Adding and subtracting decimals	2	2	U478
9	Using a written method to multiply decimals	2	2	U293
10	Multiplying and dividing with place value, Understanding and ordering integers	0	3	U735,U600
11a	Writing probabilities as fractions	1	1	U408
11b	Writing probabilities as fractions	0	2	U408
12	Constructing fractions, Constructing and solving equations	2	3	U163,U599
13	Rounding integers, Rounding decimals, Estimating calculations	2	2	U480,U298,U225
14	Area and perimeter, Writing and simplifying ratios	3	3	U993,U687
15	Angles on a line and about a point	3	3	U390
16	Calculating with roots and powers	0	1	U851
17	Plotting straight line graphs	2	3	U741
18a	Constructing fractions	2	2	U163
18b	Finding percentages of amounts without a calculator	3	3	U554
19a	Writing and simplifying ratios	1	1	U687
19b	Writing and simplifying ratios	1	1	U687
20	Writing probabilities as fractions, Probabilities of mutually exclusive events	1	1	U408,U683
21	Solving equations with the variable on both sides	2	3	U870
22	Sharing amounts in a given ratio, Angles in triangles	2	4	U577,U628
23	Types of data	1	1	U322
24a	Reflection	1	1	U799
24b	Rotation	1	1	U696
25a	Position-to-term rules for geometric sequences	0	1	U958
25b	Special sequences	0	2	U680
26	Simplifying algebraic fractions by cancelling, Substitution into formulae	2	2	U103,U585
27	Index rules with positive indices	3	3	U235
28	Finding the volume of cylinders, Finding the volume of spheres	0	4	U915,U617
29	Sharing amounts in a given ratio	4	4	U577
30a	Multiplying and dividing numbers in standard form	2	2	U264
30b	Adding and subtracting numbers in standard form	0	2	U290
31	Interpreting inverse proportion equations	1	1	U364
	Total	56	80	

Mathematics Assessment Feedback

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4	Calculating with roots and powers	1	/	1	U851
5	Using a written method to multiply integers	1	/	3	U127
6a	Interpreting bar charts	0	/	1	U557
6b	Interpreting bar charts	1	/	1	U557
6c	Interpreting bar charts	1	/	1	U557
6d	Drawing bar charts	2	/	2	U363
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15	Angles on a line and about a point	3	/	3	U390
16	Calculating with roots and powers	0	/	1	U851
17	Plotting straight line graphs	2	/	3	U741
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28	Finding the volume of cylinders, Finding the volume of spheres	0	/	4	U915,U617
29	Sharing amounts in a given ratio	4	/	4	U577
30a	Multiplying and dividing numbers in standard form	2	/	2	U264
30b	Adding and subtracting numbers in standard form	0	/	2	U290
31	Interpreting inverse proportion equations	1	/	1	U364
	Total	56	/	80	

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Mathematics – going the extra mile

- XP Boost homework is an opportunity for each student to continue their learning by answering more consolidation and revision questions from topics previously covered in homework.

- Target homework is made up of up to six bespoke questions that Sparx thinks each student will find challenging.

- There is an after school support session every Tuesday, for students working at all levels.

Mathematics – going the extra mile

- There is no 'magic formula' to suddenly boost a student by one or two grades overnight.

- Improvement in Maths is incremental, and takes time and effort.

- Start early. Little and often.

- Any questions?

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