

HOW TO PASS:

Higher Maths



DGS Unit 1

- Straight Line
- Functions and Graphs
 - Trig Graphs
 - Polynomials
 - Quadratics
- ~~Recurrence Relations~~

DGS Unit 2

- Differentiation
- Applications of Differentiation
 - ~~Vectors~~
 - Integration
- Applications of Integration

DGS Unit 3

- Trigonometric Equations
 - Wave Function
 - Addition Formulae
 - Circles
- Logs and Exponentials



SQA EXAM

Friday 6th of May

Mathematics Higher Paper 1
Non-calculator 09:00 – 10:15

Mathematics Higher Paper 2
Calculator 10:45 – 12:15



SQA EXAM

Paper 1 – Non – Calculator Paper

55 marks 1 hour and 15 minutes

Paper 2 - Calculator Paper

65 marks 1 hour and 30 minutes

Revision Plan

- Organise all jotters and notes.
- Split up the course and topics to ensure everything is covered.
- Begin with a review of examples and notes.
- Complete relevant textbook questions for each topic.
- Complete the past paper questions matching each topic.
- Complete past papers under timed conditions.

Available Resources

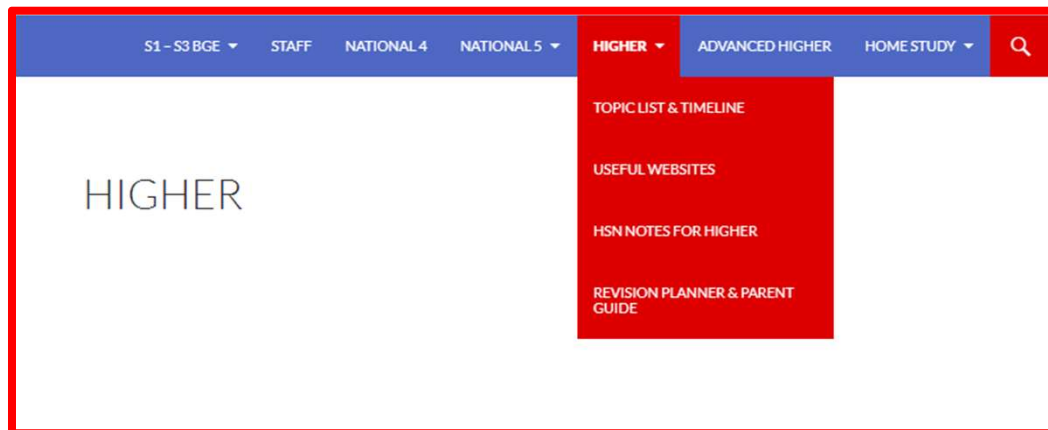
- Access google classroom.
- Various sites are identified here.

The screenshot shows a Google Classroom interface for a class titled "Mr White - Col4 Higher - 21/22". The class code is "dbhdnhu". The page features a green header with a book illustration and a "Select theme Upload photo" button. Below the header, there is a "Meet" button with a "Join" button and a "Visible to students" toggle. A central announcement box shows a post by "Chris White" about a new assignment: "Unit 1 Assessment", due on 27 Oct. The post includes a "Posted 5 Oct" timestamp, the text "You will sit your unit 1 assessment on 27th October 2021.", and statistics showing 0 "Handed in" and 19 "Assigned". Below the announcement, there is a "Create" button and a list of resources: "Unit 1 Assessment" (Due 27 Oct), "Senior Maths Challenge" (Posted 13 Sept), and a "Course Info & Revision" section containing: "Top Tips For Passing" (Posted 5 Sept), "Course Outline" (Posted 5 Sept), "Higher Formula Sheet" (Posted 5 Sept), "Higher Maths Past Papers" (Posted 5 Sept), "Higher Additional Question Bank" (Posted 5 Sept), "HSN Unit 1 Summary" (Posted 4 Sept), "HSN Unit 2 Summary" (Posted 4 Sept), "HSN Unit 3 Summary" (Posted 4 Sept), and "HSN Whole Course Summary" (Posted 4 Sept). A sidebar on the left lists "All topics" including "Course Info & Revisi...", "Polynomials", "Trigonometry", "Functions", "Straight Line", and "NS Trig Graphs & Eq...".

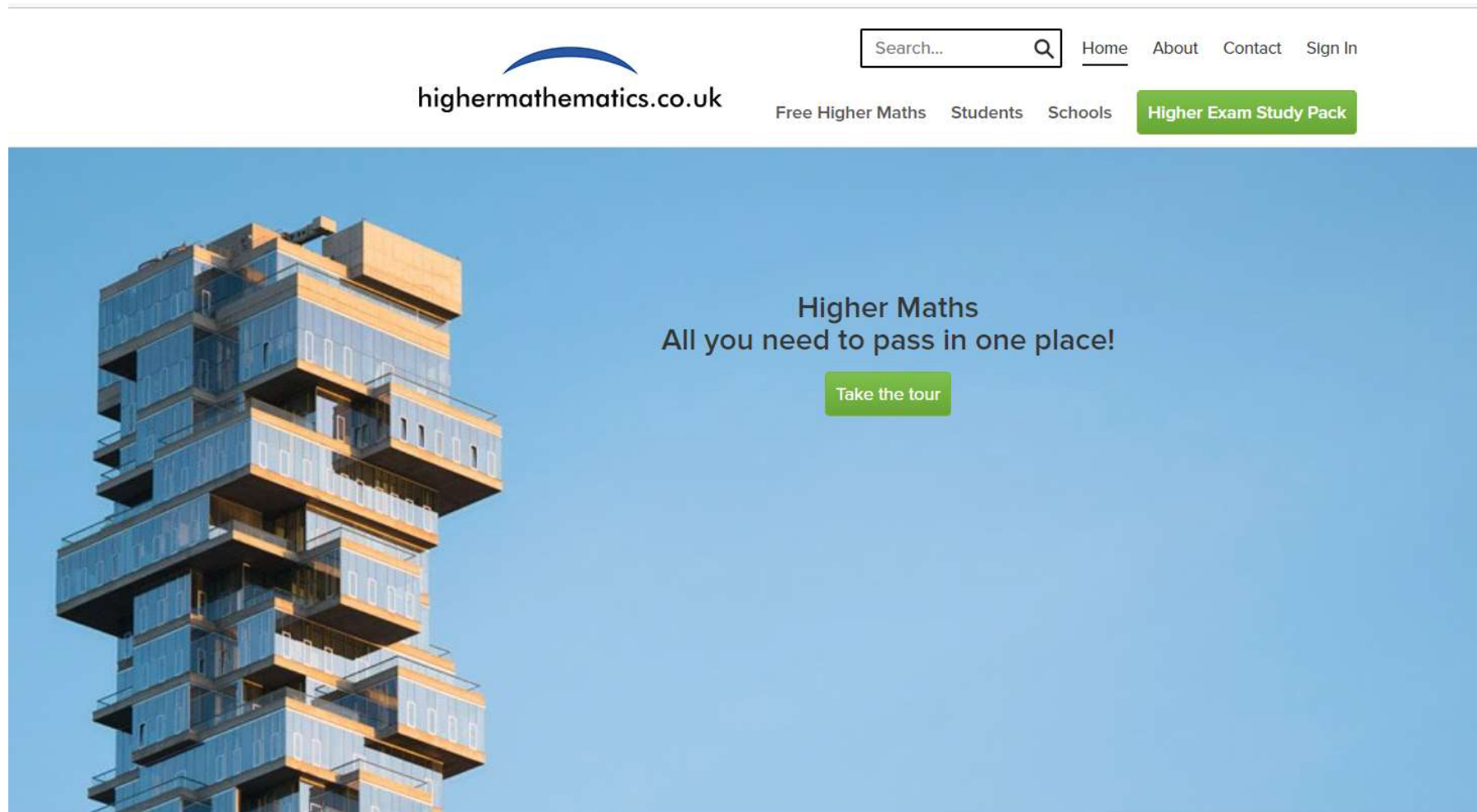
Available Resources

- School website – the Higher Maths page provides live links.

https://www.edubuzz.org/dgs_maths/



Available Resources



✓ Covers the whole of the Higher Maths

✓ Created by an experienced maths

✓ Resources used with students in Scottish

Available Resources

- Prelim Analysis Sheet

DGS Higher Maths Prelim 2020



A N OTHER

Suggested Examples To Help Improve Performance
Taken From SQA Past Papers

Paper 1							Paper 1	Paper 2	Overall	
Qu	Topic	Marks	Out Of	Past Paper Questions From Paper 1 Unless Otherwise Stated			Marks	46	36	82
1	Evaluate $f'(x)$	2	3				Overall Percentage 59%			
2	Discriminant	3	3							
3	Perpendicular Bisectors	4	4							
4ai & ii	Collinearity	2	4							
4b	Perpendicular Vectors	0	4	2015 Q1, 2014 Q16, 2013 Q14, 2012 Q17, 2009 P2 Q7, 2008 Q12 and 18						
5	Composite Functions	5	6							
6	Recurrence Relations	0	5	2018 P2 Q17, 2017 Q9, 2016 Q3, 2015 P2 Q3, 2014 Q1 and 10						
7a	Sketch Related Functions	3	3							
7b	Sketch Derived Graph	3	3							
8a	Stationary Points	6	6							
8b	Factorise a Cubic	5	5							
8c	Curve Sketching	4	4							
9	Equation of a Tangent	2	7	2018 Q7, 2015 Q2, 2014 P2 Q2, 2013 Q2, 2012 Q2 2011 Q4						
10	Integration	2	4							
11	$m = \tan(\theta)$	0	3	2018 Q8, 2012 Q4, 2011 Q8						
12	Area Between Curves	5	6							

Overall % for each topic

Unit 1			
Topic	Mark	Out of	%
St Line	12	15	80%
Functions	13	18	72%
Polynomials	7	12	58%
Quadratics	5	10	50%
Rec Rels	0	5	0%

Unit 2			
Topic	Mark	Out of	%
Differentiation	23	36	64%
Integration	14	20	70%
Vectors	8	24	33%

Paper 2						
Qu	Topic	Marks	Out Of	Past Paper Questions From Paper 2 Unless Otherwise Stated		
1	Straight Line - Intersecting Lines	8	8			
2	Polynomials - Missing Coefficients	2	7	T/book Ex7F and 2018 Q7, 2017 Q2, 2016 Q3, 2015 Q3, 2014 Q22		
3	Finding a Function	1	5	2014 P1 Q15, 2013 P1 Q17, 2011 P1 Q17, 2010 P1 Q16		
4	Integration - Missing Limit	5	5			
5	Completing The Square	1	4	2018 Q4, 2017 Q4, 2006 Q12, 2015 Q2, 2014 P1 Q17, 2013 P1 Q21		
6	Vectors - Pts Dividing Lines	4	7			
7	Differential Equation	2	5	2018 P1 Q10, 2016 Q9, 2015 P1 Q15, 2007 Q10		
8	Quadratic Inequation	1	3	2017 Q8, 2015 P1 Q8, 2013 P1 Q19, 2012 P1 Q19, 2011 P1 Q18		
9	Optimisation	5	9			
10a&b	Vector Pathways	0	4	2018 P1 Q9, 2017 Q5, 2016 P1 Q7, 2015 Q6, 2014 P1 Q19		
10c	Angle Between Vectors	2	5	2018 Q2, 2017 Q5, 2016 Q5, 2014 Q4, 2012 Q5		
11	Max & Min Over a Closed Interval	5	8			

Useful Maths Sites For Revision

Larbert High School Video Lessons
<http://bit.ly/LHSvids>

Scholar: scholar.hw.ac.uk

Edubuzz Past Papers Site:
<http://bit.ly/sqappqs>

Higher Maths Revision Sheets:
<http://bit.ly/HMathsrev>

Available Reosurces

- Revision Booklet



DUNBAR GRAMMAR SCHOOL

Higher Mathematics Revision for final exam



To revise the topics indicated, attempt the selected questions from the exam papers, check answers and method and ask your teacher to give help when required.

"The best way to eat an elephant is one bite at a time. The secret is not to waste too much time deciding where to take the first bite."

Unknown

"The secret of getting ahead is getting started. The secret of getting started is breaking your complex, overwhelming tasks into small manageable tasks, and then starting with the first one."

Mark Twain

Completed by	Topic	
13 weeks to go	Straight Line	Differentiation
11 weeks to go	Sequences	Vectors
9 weeks to go	Functions	Quadratics
8 weeks to go	Trig Equations	Addition and Double Angle Formulae
7 weeks to go	Integration & Areas	Trig. Graphs
6 weeks to go	Inc. and Dec. Functions and Turning Points	Circles
5 weeks to go	Polynomials and Remainder Theorem	Wave Function
4 weeks to go	Logs & Exponentials	2011 Paper
2 week to go	2016 Paper 1	2016 Paper 2
Exam week	2017 Paper 1	2017 Paper 2

About the revision plan

The aim of this revision guide is to help you plan out your revision and shows just how much there is to revise for. Can you imagine trying to revise all of this the week before the exam?!! It pays dividends to begin revising early.

Attempt the tasks each week and come to the after school revision sessions to get help with questions you found difficult.



After School Support Classes

- Wednesday in M19 with Mr Laidlaw
- Thursday in M17 with Mr Morrison

Helping your Child with their Revision

- ❖ Access the SQA website and download past papers and marking instructions they are also available on the DGS maths page.
- ❖ Encourage your child to seek help if they feel they are struggling to understand.
- ❖ Encourage your child to use the prelim analysis sheet provided.
- ❖ Encourage your child to attend maths revision classes. These are available on a Wednesday and Thursday after school.

Tips for maximising success on exam day

- ❖ Read questions thoroughly – make sure you answer what is actually asked.
- ❖ Write an unrounded answer before you round.
- ❖ Include units in all questions.
- ❖ Communicate answers clearly and concisely.
Don't add additional detail that is not needed in a written answer.
- ❖ Give a reason to explain any decision you make.
e.g. "On average Jim did better than Bob as 85% is more than 80%."



Any Questions ?