

Pearson AS-Level Further Mathematics – 8FM0K: WBHS Summer 2021 Assessment Record

Record produced and finalised by:

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Role: HEAD OF MATHS

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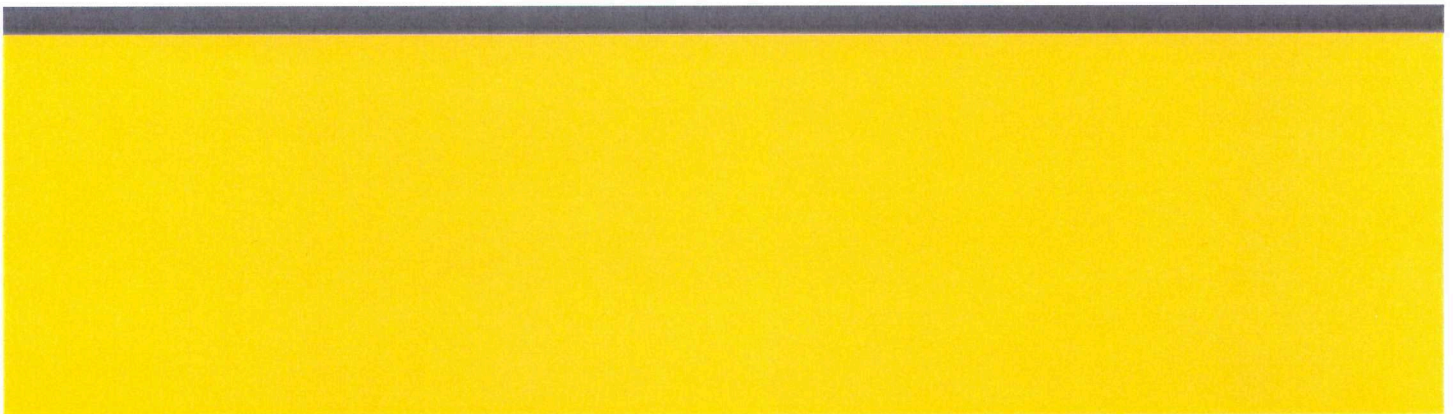
Date: 6/7/21

Second Verifier: CHRIS JOHNSON

Role: 2nd IN MATHS

Signature: Chris Johnson

Date: 6/7/21



Assessment Record Rational for all Centre Assessed Grades

We have used formal, written assessments to help determine what grades students are working at as we feel this is the best way to test student understanding. This is also how students are assessed under normal circumstances in maths. These assessments have been taken in high control conditions (unless where this has not been possible due to lockdown) to ensure the work assessed is a students' own. Across these assessments we have covered all topic areas and within each topic area (in most cases) there have been questions assessing all assessment criteria's so we are confident that there has been a breadth of coverage.

We either created our own assessments using past exam questions to ensure an appropriate level of challenge or used past papers created by the exam boards. Both enabled us to use mark schemes provided by the exam board to ensure consistency in marking. Across the selection of assessments, students were told which broad topics would be on each assessment to ensure that students had a fair chance to show us what they could and couldn't do. Grade boundaries have been produced using historical grade distributions for the relevant qualification at this school.

For any students who have missed an assessment, we used the remaining assessments to inform their assessed grade. For the very small number of students who missed several assessments we have also used classwork and homework tasks to help inform their grade.

Edexcel AS Level Further Mathematics 8FM0 (Option K – Decision 1 and 2) – Information

Subject Content

Pure Content Overview

- Topic 1 – Proof
- Topic 2 – Complex Numbers
- Topic 3 – Matrices
- Topic 4 – Further Algebra and Functions
- Topic 5 – Further Calculus
- Topic 6 – Further Vectors
- Topic 7 – Polar Coordinates (A2 only)
- Topic 8 – Hyperbolic Functions (A2 only)
- Topic 9 – Differential Equations (A2 only)

Decision 1 Content Overview

- Topic 1 - Algorithms and graph theory
- Topic 2 - Algorithms on graphs
- Topic 3 - Algorithms on graphs II
- Topic 4 - Critical path analysis
- Topic 5 - Linear programming

Decision 2 Content Overview

- Topic 1 - Transportation problems (A2 only)
- Topic 2 - Allocation (assignment) problems
- Topic 3 - Flows in networks
- Topic 4 - Dynamic programming (A2 only)
- Topic 5 - Game theory
- Topic 6 - Recurrence relations
- Topic 7 - Decision analysis (A2 only)

Assessment Objectives

AO1: Use and apply standard techniques

AO2: Reason, interpret and communicate mathematically

AO3: Solve problems within mathematics and in other contexts

Whitley Bay High School – Maths Department – Edexcel AS Level Further Mathematics 8FM0 (Option K – Decision 1 and 2)

Assessment Grid

Students assessed - all entries

Assessment	Pure Topic 1			Pure Topic 2			Pure Topic 3			Pure Topic 4			Pure Topic 5			Pure Topic 6			Pure Topic 7			Pure Topic 8			Pure Topic 9			Level of control			
	AO 1	AO 2	AO 3	AO 1	AO 2	AO 3	AO 1	AO 2	AO 3	AO 1	AO 2	AO 3	AO 1	AO 2	AO 3	AO 1	AO 2	AO 3	AO 1	AO 2	AO 3	AO 1	AO 2	AO 3	AO 1	AO 2	AO 3				
Driving Test 24 th September 20																															High SI High*
Pure Assessment 14 th May 21																															High SI High*

Assessment	D1 Topic 1			D1 Topic 2			D1 Topic 3			D1 Topic 4			D1 Topic 5			Level of control
	AO1	AO2	AO3	AO1	AO2	AO3	AO1	AO2	AO3	AO1	AO2	AO3	AO1	AO2	AO3	
Live Assessment 3 rd March																Limited – completed remotely
Decision Assessment 6 th May 21																High SI High*

Assessment	D2 Topic 1			D2 Topic 2			D2 Topic 3			D2 Topic 4			D2 Topic 5			D2 Topic 6			D2 Topic 7			Level of control
	AO1	AO2	AO3	AO1	AO2	AO3	AO1	AO2	AO3	AO1	AO2	AO3	AO1	AO2	AO3	AO1	AO2	AO3	AO1	AO2	AO3	
Live Assessment 3 rd March	A2 Only									A2 only									A2 only			Limited – completed remotely
Decision Assessment 6 th May 21																						

*SI – Students self-isolating completed assessment in school at later date

Comments

- All content was taught
- All topics have been covered in assessments. Some Assessment Objectives haven't, however is due to them being omitted in the real exam papers which we used to assess.
- Standardisation: All assessments are made up of exam questions from past papers and are marked using exam board mark schemes. Teachers have been trained to follow mark schemes and can consistently award marks as the mark scheme indicates. Any additional special cases or areas of perceived ambiguity are discussed and agreed as a department to ensure absolute consistency between teachers.
- A2 only – This strand of the specification is only assessed if taking course to the full A Level