

### International GCSE

# Mathematics (Specification A) (9–1) (Modular)

### Getting Started Guide

Pearson Edexcel International GCSE in Mathematics (Specification A) (Modular) (4XMAF/4XMAH)

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Issue 1



Through initiatives such as onscreen marking and administration, Pearson is leading the way in using technology to modernise educational assessment, and to support teachers and learners.

This guide is Issue 1. We will inform centres of any changes to this issue. The latest issue can be found on the Pearson Edexcel website:

https://qualifications.pearson.com/

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### 1. Introduction

This Getting Started Guide provides an overview of our new International GCSE in Mathematics (Specification A) (Modular) (4XMAF/4XMAH) qualification, to help you get to grips with the content and assessment, and to help you understand what these mean for you and your learners.

Our package of support to help you plan and implement the specification includes:

#### **Planning**

We will provide a separate course planner and a separate editable scheme of work for the Foundation and Higher Tier, which you can adapt to suit your department. We also provide face-to-face and online training for international schools.

#### **Teaching and learning**

To support you in delivering the new specification, we will provide suggested activities.

#### **Understanding the standard**

Sample Assessment Materials will be provided.

#### **Tracking learner progress**

**ResultsPlus** provides the most detailed analysis available of your learners' examination performance. It can help you identify topics and skills where learners could benefit from further learning. We also offer **examWizard**, which is a free exam preparation tool containing a bank of past Edexcel exam questions, mark schemes and examiners' reports for a range of GCSE and GCE subjects.

#### **Support**

Our subject advisor service ensures you receive help and guidance from us when you need it. Email our subject advisor at <u>teachingmaths@pearson.com</u>. You can sign up to receive subject advisor updates at

https://qualifications.pearson.com/en/forms/subject-advisor-updates-for-teachers-and-tutors.html or contact us using the <u>support portal</u>.

### 2. Key features of the qualification

Our new International GCSE in Mathematics (Specification A) (Modular) is designed to closely align to our linear International GCSE in Mathematics (Specification A) (4MA1). It covers the same content as our existing qualification, but the modular approach breaks the journey into two units with an exam at the end of each unit, so students can sit their exams when they feel prepared and ready. It also allows learners to take advantage of multiple re-sit opportunities if needed.

The modular route provides learners with a sensible and authentic form of assessment that reflects how today's students sit other high stakes assessments in their lives, (i.e., when they are ready), such as driving tests, or tests of English proficiency. Spreading their examination load across exam series provides more opportunities to demonstrate their skills and abilities and to receive feedback to help improve their performance and secure the overall grades they need to progress.

#### **How modular International GCSEs work**

- Units can be assessed in any exam series: In the modular route, there are no restrictions on students taking units together; all units can be treated separately, and they can be taken in any International GCSE exam series.
- No time limits on the qualification: Students can take and resit individual unit assessments in any series. This means students have more opportunities to get feedback to improve their performance and get the grades they need to progress.
- Students 'cash in' unit results when ready: Once a student has all their unit results for the qualification they are taking, they 'swap' those for a grade this is called 'cashing in'. To cash in, all units must have been entered.

#### Benefits of a modular approach

Students	Educators and Parents
Reduces students' mental load and	Provides teachers with rich mid-cycle
stress by allowing them to focus on one	data on learner performance via post-
year of curriculum at a time and	exam analysis support tools such as
spreads out their exams over two	Results Plus.
years.	
Provides more opportunities to	Eases the pressures faced by exam
demonstrate their skills and abilities	officers as it allows international
and optimise feedback to improve their	schools to spread the exam admin
performance.	burden.
Allows them to take exams when they	Where parents pay exam fees, it helps
are ready, like they do with other tests,	with budgeting by enabling families to
such as driving tests and take	spread their child's exam fees over two
advantage of multiple resit	years.
opportunities if needed.	

### Why choose Pearson Edexcel International GCSE in Mathematics (Specification A) (Modular)?

The Pearson Edexcel International GCSE in Mathematics (Specification A) (Modular) will engage international learners and give them skills that will support progression to further study of mathematics and to enhance future educational or employment prospects.

The content and assessment approach for this qualification has been designed to maintain the rigorous standards of all Pearson Edexcel qualifications and meet learner needs.

#### Modular structure

The modular assessment structure offers learners the flexibility to sit examinations when they are ready and provides opportunities to resit individual unit assessments before receiving an overall qualification grade.

#### Two-unit assessment

The modular approach retains the same content as the existing linear specification but splits the content across the two units and tiers. Both Unit 1 and Unit 2 will cover topic areas from Number, Algebra, Shape, space and measure and Handling data.

#### Tiered papers

Provided at two tiers of entry: Foundation and Higher. This allows learners to be entered for a level appropriate to them, with questions in each tier that are accessible to learners of all abilities within that tier.

#### Clear and straightforward question papers

Our question papers are clear and accessible for learners of all ability ranges. A range of question types will be used. Our mark schemes are straightforward so that the assessment requirements are clear.

#### Entirely calculator-based assessment

Assessments are entirely calculator-based, reflecting the skills needed in the modern world, and allowing students to focus on problem-solving rather than crunching the numbers. Students can also use advanced graphical calculators in the exam.

#### Broad and deep development of skills

The design of this International GCSE in Mathematics (Specification A) (Modular) aims to extend learners' knowledge by broadening and deepening their skills; for example, learners will:

- develop their problem-solving skills by translating problems in mathematical or non-mathematical contexts at both Higher and Foundation tiers
- develop reasoning skills through exercises such as presenting arguments and proofs, as well as making deductions and drawing conclusions from mathematical information.

#### Progression

The International GCSE in Mathematics (Specification A) (Modular) qualification enables successful progression to Level 3 qualifications (such as the International A Level in Mathematics) and beyond, in mathematics and other subjects. Throughout our qualification development process, we have consulted with International A Level and GCE A Level teachers, as well as higher education professionals to validate this qualification, including its content, skills and assessment structure.

### 3. Qualification overview

This section provides an overview of the course to help you see what you need to teach and how learners will be assessed.

Pearson Edexcel International GCSE in Mathematics (Specification A) (Modular) is offered at Foundation and Higher Tier, with each tier consisting of two mandatory units of equal weighting. We strongly advise that unit assessments are sat in order for first entry of the units, and resists can be sat in any order. Assessments must be cashed in to obtain a final grade for the qualification.

#### Key points:

- Our current linear qualification is structured in a way where all topics can be assessed in both exam papers. This means all content needs to be taught before a student is ready to sit either paper.
- In the modular form, the overall content of the specification remains the same, but is split across the two units and tiers. Each unit assesses 50% of the overall content.
- The overall modular assessment structure is the same exam structure as the linear approach.
- The expected standard of performance in exams in both linear and modular routes is Year 11 standard. All assessments in the modular route are designed to be at the same standard, and there is no step up in difficulty between Unit 1 and Unit 2.
- To achieve an International GCSE (9-1) Mathematics A modular qualification, students can sit either Unit 1 and Unit 2 (higher) or Unit 1 and Unit 2 (foundation).

#### Unit 1 and Unit 2 Foundation Tier content and assessment overview

Unit 1 and Unit 2 Foundation Tier	Unit codes: Unit 1: 4WM1F/01 Unit 2: 4WM2F/01
Externally assessed Written examination: 2 hours for each unit assessment Availability: June and November 100 marks for each unit assessment	Each unit assessment is 50% of the total International GCSE (Modular)

#### Content overview

- Number
- Algebra
- Geometry
- Statistics

For more detail under these key content areas, please see *Modular content summary* on page 11.

#### Assessment overview

- Each unit will assess the full range of targeted grades at Foundation Tier (5-1).
- Each unit has approximately equal marks available for each of the targeted grades.
- Approximately 40% of common questions targeted at grades 5 and 4 appear across Unit 1 assessment at Foundation Tier and Unit 1 assessment at Higher Tier, as well as across Unit 2 assessment at Foundation Tier and Unit 2 assessment at Higher Tier to aid standardisation and comparability of award between tiers.
- Knowledge of the Foundation Tier Unit 1 content is assumed for learners being prepared for Foundation Tier Unit 2.
- A Foundation Tier formulae sheet will be included in the written examinations.
- Calculators may be used in the examinations.

#### Unit 1 and Unit 2 Higher Tier content and assessment overview

Unit 1 and Unit 2 Higher Tier	Unit codes: Unit 1: 4WM1H/01 Unit 2: 4WM2H/01	
Externally assessed  Written examination: 2 hours for each unit assessment  Availability: June and November	Each unit assessment is 50% of the total International GCSE	
100 marks for each unit assessment	(Modular)	

#### Content overview

- Number
- Algebra
- Geometry
- Statistics

For more detail under these key content areas, please see *Modular content summary* on page 11.

#### Assessment overview

- Each unit will assess the full range of targeted grades at Higher Tier (9-4, with an allowable grade 3).
- Each unit has approximately equal marks available for each of the targeted grades.
- Approximately 40% of common questions targeted at grades 5 and 4 appear across Unit 1 assessment at Foundation Tier and Unit 1 assessment at Higher Tier, as well as across Unit 2 assessment at Foundation Tier and Unit 2 assessment at Higher Tier to aid standardisation and comparability of award between tiers.
- Knowledge of the Foundation Tier Unit 1 content is assumed for learners being prepared for Foundation Tier Unit 2 or Higher Tier Unit 2.
- Knowledge of the Higher Tier Unit 1 content is assumed for learners being prepared for Higher Tier Unit 2.
- A Higher Tier formulae sheet will be included in the written examinations.
- Calculators may be used in the examinations.

#### Modular content summary

The table below shows the topic areas covered in each unit for the Foundation (**F**) and Higher (**H**) Tier across Number, Algebra, Shape, space and measure and Handling data.

Unit 1			Unit 2		
Number (AO1)	F	н	Number (AO1)	F	н
Basic number skills	✓	✓	Ratio and proportion	✓	✓
Limits of accuracy	✓	✓	Percentage skills	✓	✓
Surds and indices	x	✓	Standard form	✓	✓
			Repeated percentage change	×	✓
Algebra (AO1)	F	н	Algebra (AO1)	F	н
Basic algebra skills	✓	✓	Inequalities	✓	✓
Set notation	✓	✓	Simultaneous equations	✓	✓
Plotting graphs	✓	✓	Sequences	✓	✓
Solving basic quadratics $x^2 + bx + c = 0$	✓	✓	Change of subject	✓	✓
Solving quadratics $ax^2 + bx + c = 0$	x	✓	Algebraic proof	×	✓
Completing the square	×	✓	Direct and inverse proportion	×	<b>✓</b>
The quadratic formula	×	✓	Summation of arithmetic series	×	✓
			Function notation and transformations	×	✓
			Differentiation	×	✓
Shape, space and measure (AO2)	F	н	Shape, space and measure (AO2)	F	н
Properties and areas of shapes	✓	✓	Angles in polygons and circles	✓	✓
Trigonometry	✓	✓	Symmetry	✓	✓
Pythagoras' theorem	✓	✓	Constructions	✓	✓
Compound measures (speed, density)	✓	✓	Volume	✓	✓
Sine and Cosine rule	×	✓	Similarity	✓	✓
Sine area of a triangle	x	✓	Transformations	✓	✓
3D Pythagoras' theorem	x	✓	Circle theorems	x	✓
			Similar area and volume	×	✓
			Vectors	×	✓
Handling data (AO3)	F	н	Handling data (AO3)	F	н
Basic probability	<b>✓</b>	<b>✓</b>	Statistical measures	✓	✓
Tree diagrams	x	✓	Cumulative frequency diagrams	×	✓
Conditional probability	x	✓			
Histograms	x	<b>✓</b>			

#### Unit 1 and Unit 2 content split

As previously highlighted, in the modular route each unit draws upon a set of discrete content areas. Within the Foundation Tier and Higher Tier content, there is also exclusive content that will never appear in Unit 2. The tables below indicate these content areas.

#### Unit 1 exclusive content (will never appear in Unit 2)

#### Foundation Tier

Specification reference	Letter reference	Content area	Skill
1.5	А	Set language and set notation	understand the definition of a set
1.5	В	Set language and set notation	use the set notation union, intersection and element of and not an element of
1.5	С	Set language and set notation	understand the concept of the Universal Set and the Empty Set and the symbols for these sets
1.5	D	Set language and set notation	understand and use the complement of a set
1.5	E	Set language and set notation	use Venn diagrams to represent sets
1.8	С	Degree of accuracy	identify upper and lower bounds where values are given to a degree of accuracy
1.8	D	Degree of accuracy	use estimation to evaluate approximations to numerical calculations
4.4	F	Measures	understand and use the relationship between average speed, distance and time
6.1	A(i)	Graphical representation of data	use different methods of presenting data (two-way tables)

6.3	А	Probability	understand the language of probability
6.3	В	Probability	understand and use the probability scale
6.3	С	Probability	understand and use estimates or measures of probability from theoretical models
6.3	D	Probability	find probabilities from a Venn diagram
6.3	Е	Probability	understand the concepts of a sample space and an event, and how the probability of an event happening can be determined from the sample space
6.3	F	Probability	list all the outcomes for single events and for two successive events in a systematic way
6.3	G	Probability	estimate probabilities from previously collected data
6.3	Н	Probability	calculate the probability of the complement of an event happening
6.3	I	Probability	use the addition rule of probability for mutually exclusive events
6.3	J	Probability	understand and use the term 'expected frequency'

#### Higher Tier

Specification reference	Letter reference	Content area	Skill
1.3	А	Decimals	convert recurring decimals into fractions
1.5	A	Set language and set notation	understand sets defined in algebraic terms, and understand and use subsets
1.5	В	Set language and set notation	use Venn diagrams to represent sets and the number of elements in sets
1.5	С	Set language and set notation	use the notation n(A) for the number of elements in the set A
1.5	D	Set language and set notation	use sets in practical situations
1.8	A	Degree of accuracy	solve problems using upper and lower bounds where values are given to a degree of accuracy
6.1	А	Graphical representation of data	construct and interpret histograms
6.3	Α	Probability	draw and use tree diagrams
6.3	В	Probability	determine the probability that two or more independent events will both occur
6.3	С	Probability	use simple conditional probability when combining events
6.3	D	Probability	apply probability to simple problems

### 4. Assessment guidance

#### Assessment requirements

The table below outlines the assessment requirements for Unit 1 and Unit 2 at Foundation and Higher Tier.

Unit 1	Unit 2			
Foundation Tier	Foundation Tier			
<ul> <li>Duration: 2 hours</li> <li>Total number of marks: 100</li> <li>Weighting: 50%</li> <li>Grade range: 5-1</li> </ul>	<ul> <li>Duration: 2 hours</li> <li>Total number of marks: 100</li> <li>Weighting: 50%</li> <li>Grade range: 5-1</li> </ul>			
Higher Tier	Higher Tier			
<ul> <li>Duration: 2 hours</li> <li>Total number of marks: 100</li> <li>Weighting: 50%</li> <li>Grade range: 9-4 with an allowable grade 3</li> </ul>	<ul> <li>Duration: 2 hours</li> <li>Total number of marks: 100</li> <li>Weighting: 50%</li> <li>Grade range: 9-4 with an allowable grade 3</li> </ul>			
For each unit exam, a formulae sheet will be included, and a calculator is permitted				
Approximately 40% of questions are the same across Foundation and Higher Tier papers				

On both the Foundation and Higher Tier, the unit assessments are a combination of different question types. These will include, for example, short numerical answers, questions covering standard techniques, longer numerical answers requiring problem-solving skills, graph drawing, accurate drawings, questions requiring reasoning. There will be a mix of different question types on each tier.

#### Assessment objectives

Assessment objectives describe the types of thinking skills required of learners when answering the questions in the examinations. There are **three** assessment objectives for this qualification and the table below summarises these, along with the weightings for each.

Assessment objective	Definition	% in International GCSE
		(Modular)
AO1	Demonstrate knowledge, understanding and skills in number and algebra:         • numbers and the numbering system         • calculations         • solving numerical problems         • equations, formulae and identities         • sequences, functions and graphs.	57-63
AO2	Demonstrate knowledge, understanding and skills in shape, space and measures:  • geometry and trigonometry  • vectors and transformation geometry.	22-28
AO3	Demonstrate knowledge, understanding and skills in handling data:  • statistics • probability.	12-18

#### Relationship of assessment objectives to units

Unit	Assessment objective			
	AO1	AO2	AO3	
Unit 1 and Unit 2	28.5-31.5%	11-14%	6-9%	
Foundation Tier				
Unit 1 and Unit 2	28.5-31.5%	11-14%	6-9%	
Higher Tier				
Total for	57-63%	22-28%	12-18%	
International GCSE				
(Modular)				

#### Relationship of problem-solving and mathematical reasoning skills to tier

Unit	Standard mathematical techniques	Problem solving	Mathematical reasoning
Unit 1 and Unit 2	60%	25%	15%
Foundation Tier			
Unit 1 and Unit 2	50%	30%	20%
Higher Tier			

#### Codes

Type of code	Use of code	Code
Cash-in	Cash-in codes are used in	Foundation Tier: 4XMAF
codes	combination with entry codes to	
	aggregate the learner's unit	Higher Tier: 4XMAH
	scores to obtain the overall	
	grade for the qualification. There is a separate cash-in	
	code for Foundation Tier and	
	Higher Tier.	
Entry	To enter the learner for their	Please refer to the Pearson
codes	examination, unit codes are	Edexcel <i>Information Manual</i> ,
	used as entry codes.	available on the <u>Pearson</u>
		<u>qualifications website</u> .
	To obtain the overall grade for	
	the qualification, entry codes are used in combination with	
	cash-in codes. There is a	
	separate cash-in code for	
	Foundation Tier and Higher	
	Tier.	
Unit codes	Each unit is assigned a unit	Unit 1 Foundation Tier: 4WM1F/01
	code. This unit code is used as	Unit 2 Foundation Tier: 4WM2F/01
	an entry code to indicate that a	
	learner wishes to take the	Unit 1 Higher Tier: 4WM1H/01
	assessment for a particular unit.	Unit 2 Higher Tier: 4WM2H/01

#### Command word taxonomy

There are several key words that will be used consistently in the assessments. These are typically called **command words** and are used to signal to learners how to structure their responses and ensure they are rewarded for demonstrating the necessary skills required in the question.

- Each question will only have one command word
- Command words should generally appear at the start of an item, so that learners are immediately aware of what the expectation of the item is
- Command words are not interchangeable different commands have different evidence requirements.

The International GCSE in Mathematics (Specification A) (Modular) qualification has a consistent command word taxonomy to help learners. The below table lists the command words used in the Sample Assessment Materials, which subsequently may be used in the question papers and a description of the type of response required.

Command word	Definition/guidance
Write down	Information gained by looking at something – e.g. write down the day that has the highest number of students cycling to school (from a bar chart).
Write	Knowledge that should be known e.g. write 67% as a fraction.
Work out	Frequently used throughout the paper.
Find	Generally used to "find the ratio" maybe finding the ratio of two things from a bar chart.  "Find an equation of the line" when given information or a diagram about the line.
List	Generally used to list members of a set.
Solve	Solving an equation or an inequality; find the value or values of the letter involved.
Describe/ Describe fully	Often used for transformations and a student must give all elements needed for the description.
Explain	Explain how you worked out your answer – often used with sequences and generating the next term.
Give a reason	Often used for angle questions – give a reason (words not mathematical working) why the angle is as it is.

Give reasons	Give all the (full) reasons you have used to find an angle
	for instance.
Factorise	Take out the common factor and use brackets correctly.
Factorise fully	Take out all the common factors and use brackets
	correctly.
Simplify	Used in an algebra question a + a + a.
Show that (or show	Show all the stages in your working to show a calculation
your working clearly)	e.g. fractions and surds.
Show clear algebraic	Generally for simultaneous equations, equations etc and
working	often these are assessing the mathematical skill,
	reasoning (in a show that question, students may not
	gain full marks unless they show all stages in their
	working).
Prove (only to be	Show, often algebraically, that a described situation is
used on Higher Tier	always true, e.g. the sum of 2 consecutive numbers is
papers)	always odd.

### 5. Planning

We have provided a separate course planner, and a separate editable scheme of work for the Foundation and Higher Tier, to support you in delivering this qualification.

#### Course Planner Foundation Tier

The 2-year course planner below is an example of one possible model to teach each of the units within the International GCSE Mathematics (Specification A) (Modular) Foundation Tier qualification.

The course planner summarises what can be covered in each term to enable completion of the content and preparation for assessment at the end of each year. It assumes that each year is split into 3 terms.

We strongly advise that Units 1 and 2 are sat in order for first entry of the units and resits can be sat in any order.

This is only a suggested course planner with suggested timings, and it does not need to be followed.

The course planner can also be accessed from our website <u>here</u>.

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### **Getting Started Guide**

Year	Term	Unit/Topic	Notes	GLH*
1	1	Unit 1:	Integers and place value	35
		Foundation Tier	Decimals	
			<ul> <li>Special numbers and powers</li> </ul>	
			Fractions	
			Percentages 1	
			Ratio and proportion 1	
			Arithmetic of fractions	
			<ul> <li>Set language and Venn diagrams</li> </ul>	
			<ul> <li>Algebraic manipulation</li> </ul>	
			<ul> <li>Equations and inequalities</li> </ul>	
			<ul> <li>Real life graphs</li> </ul>	
			<ul> <li>Straight line graphs</li> </ul>	
1	2	Unit 1: Foundation Tier	<ul> <li>Quadratic equations and graphs</li> </ul>	35
			<ul> <li>Angles and measures</li> </ul>	
			<ul> <li>Symmetry, shapes, parallel lines and angle facts</li> </ul>	
			<ul> <li>Compound measures</li> </ul>	
			Perimeter and area	
			<ul> <li>Pythagoras' theorem and trigonometry</li> </ul>	
			<ul> <li>Representing data</li> </ul>	
			Probability	

### Mathematics A (Modular) (4XMAF/4XMAH)

### **Getting Started Guide**

Year	Term	Unit/Topic	Notes	GLH*
1	1st half of Term 3	Revision of Unit 1: Foundation Tier	Revision of topics and practice of examination questions	10
1	2 <sup>nd</sup> half of Term 3	Unit 2: Foundation Tier	<ul> <li>Primes, HCF and LCM, and standard form</li> <li>Percentages 2</li> <li>Ratio and proportion 2</li> </ul>	20
2	1	Unit 2: Foundation Tier	<ul> <li>Expressions, formulae and rearranging equations</li> <li>Inequalities</li> <li>Sequences</li> <li>Graphs of inequalities</li> <li>Simultaneous equations</li> <li>Measures, bearings and scale drawings</li> <li>Symmetry</li> <li>Polygons</li> </ul>	35
2	2	Unit 2: Foundation Tier	<ul> <li>Surface area and volume</li> <li>Circles and cylinders</li> <li>Transformations</li> <li>Similarity and congruence in 2D</li> <li>Constructions and bearings</li> <li>Data</li> <li>Statistical measures</li> </ul>	35
2	3	Revision of Unit 2: Foundation Tier	Revision of topics and practice of examination questions	10

<sup>\*</sup>GLH = Guided Learning Hours

#### Course Planner Higher Tier

The 2-year course planner below is an example of one possible model to teach each of the units within the International GCSE Mathematics (Specification A) (Modular) Higher Tier qualification.

The course planner summarises what can be covered in each term to enable completion of the content and preparation for assessment at the end of each year. It assumes that each year is split into 3 terms.

We strongly advise that Units 1 and 2 are sat in order for first entry of the units and resits can be sat in any order.

This is only a suggested course planner with suggested timings, and it does not need to be followed.

The course planner can also be accessed from our website <u>here</u>.

### Mathematics A (Modular) (4XMAF/4XMAH)

### **Getting Started Guide**

Year	Term	Unit/Topic	Notes	GLH*
1	1	Unit 1: Higher Tier	Decimals	35
			<ul> <li>Fractions and percentages</li> </ul>	
			Ratio and proportion 1	
			<ul> <li>Surds and powers</li> </ul>	
			<ul> <li>Degree of accuracy</li> </ul>	
			<ul> <li>Set language, notation and Venn diagrams</li> </ul>	
			<ul> <li>Algebraic manipulation</li> </ul>	
			<ul> <li>Linear equations</li> </ul>	
			<ul> <li>Linear graphs</li> </ul>	
			<ul> <li>Quadratic equations, inequalities and graphs</li> </ul>	
1	2	Unit 1: Higher Tier	Compound measures	35
			Geometry of shapes 1	
			<ul> <li>Perimeter, area and volume 1</li> </ul>	
			<ul> <li>Pythagoras' theorem and trigonometry</li> </ul>	
			<ul> <li>Advanced trigonometry</li> </ul>	
			Graphical representation of data 1	
			<ul> <li>Probability</li> </ul>	

### Mathematics A (Modular) (4XMAF/4XMAH)

### **Getting Started Guide**

Year	Term	Unit/Topic	Notes	GLH*
1	1st half of Term 3	Revision of Unit 1: Higher Tier	Revision of topics and practice of examination questions	10
1	2 <sup>nd</sup> half of Term 3	Unit 2: Higher Tier	<ul> <li>Special numbers</li> <li>Percentages</li> <li>Ratio and proportion 2</li> <li>Indices and standard form</li> <li>Proof</li> <li>Expressions, formulae and rearranging formulae</li> </ul>	20
2	1	Unit 2: Higher Tier	<ul> <li>Inequalities</li> <li>Sequences</li> <li>Graphs of inequalities</li> <li>Harder graphs and transformation of graphs</li> <li>Simultaneous equations</li> <li>Function notation</li> <li>Calculus</li> <li>Geometry of shapes 2</li> </ul>	35
2	2	Unit 2: Higher Tier	<ul> <li>Constructions and bearings</li> <li>Perimeter, area and volume 2</li> <li>Transformations</li> <li>Circle properties</li> <li>Similar shapes</li> <li>Vectors</li> <li>Graphical representation of data 2</li> <li>Statistical measures</li> </ul>	35
2	3	Revision of Unit 2: Higher Tier	Revision of topics and practice of examination questions	10

#### Schemes of Work

We have a separate Scheme of Work for the Foundation and Higher Tier qualification, which can be accessed <u>here</u>.

These Word documents are editable to allow for any adaptations you may wish to make to best suit your teaching style and learner needs.

## 6. Delivery of the qualification – transferable skills

#### The need for transferable skills

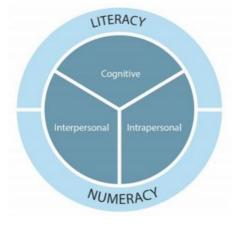
Ensuring students have opportunities to acquire transferable skills, as well as subject specific knowledge, understanding and skills to improve learners' progression outcomes is a central part of our International GCSE qualifications.

In recent years, higher education institutions and employers have consistently flagged the need for learners to develop a range of transferable skills to enable them to respond with confidence to the demands of undergraduate study and the world of work.

The Organisation for Economic Co-operation and Development (OECD) defines skills, or competencies, as 'the bundle of knowledge, attributes and capacities that can be learned and that enable individuals to successfully and consistently perform an activity or task and can be built upon and extended through learning.' [1]

To support the design of our qualifications, the Pearson Research Team selected and evaluated seven global 21st-century skills frameworks. Following on from this process, we identified the National Research Council's (NRC) framework <sup>[2]</sup> as the most evidence-based and robust skills framework and have used this as a basis for our adapted skills framework.

The framework includes cognitive, intrapersonal skills and interpersonal skills.



<sup>&</sup>lt;sup>1</sup>OECD – Better Skills, Better Jobs, Better Lives (OECD Publishing, 2012)

<sup>&</sup>lt;sup>2</sup>Koenig J A, National Research Council – *Assessing 21st Century Skills: Summary of a Workshop* (National Academies Press, 2011)

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