BELLERIVE L3 Core Maths SOW

Content: This scheme is the Bellerive adaptation of the AQA L3 Mathematical Studies scheme of work to suit needs of pupils.

Timings: This scheme of work is a working document, timings require adjustments each academic year depending on setting and term length.

Assessment points: Formal assessments will be sat in line with the Y12 LP calendar

Pupil Requirements: Students studying Core Maths (Level 3 – Mathematical Studies) are expected to have achieved a grade 5 or above at GCSE having studied the Higher specification. They will also be expected to purchase a Casio fx-991EX calculator.

Teaching: The course can be taught by a single teacher or pair of teachers. It requires 8 hours a fortnight teaching time (7 minimum).

Timeline · *1 Teacher*

AUTUMN

Estimation & Analysis of Data

Week	Page	Topic
1		Intro & Fermi Estimation
2		Fermi Estimation
3-7		Analysis of Data
		LP1

HALF TERM

Personal Finance

8 - 9		Percentages and Tax
10 - 11		NI and Loans
12 - 13		APR and AER
14 - 15		Mortgages

SPRING

Personal Finance & Critical Analysis

Week	Page	Topic
1		Compound Interest and AER
2		VAT, %, Exchange Rates & Inflation
		LP2
3-6		Critical Analysis, Data and Sampling

HALF TERM

Critical Analysis & Correlation and Regression

7		Misleading with Data and Critical Analysis Calculations
9		*Work Experience*
10-12		Correlation, Regression Lines
		Mock Exam

SUMMER

Normal Distribution & Confidence Intervals

Week	Page	Topic
1		Normal Distribution
2 - 3		Confidence Intervals
4 - 5		Paper 1 Revision & Exams

HALF TERM

Exams & Finished

6 - 7		Paper 2A Revision & Exams
		Preliminary Material
		Working with prelim material embedded but included at an appropriate time at teacher discretion.

Overview ***Exam Info*** ***Internal Exams*** ***Teaching Resources*** ***Assessments*** ***Revision Materials***

Course Overview

Aims

This Level 3 Certificate Mathematical Studies qualification will consolidate students' mathematical understanding, build their confidence and competence in applying mathematical techniques to solve a range of problems and introduce them to new techniques and concepts that will prepare them for further study and future employment within a broad range of academic, professional and technical fields.

Mathematical Studies aims to prepare students for the mathematical demands of higher education and work where there is a distinct mathematical or statistical element, but where the mathematical demands do not stretch to a requirement for A-level Mathematics.

A course of study leading to this qualification should enable students to:

- study a mathematics curriculum that is integrated with other areas of their study, work or interest leading to the application of mathematics in these areas
- develop mathematical modelling, evaluating and reasoning skills
- solve problems some of which will not be well defined and may not have a unique solution
- solve substantial and real life problems encountered by adults
- use ICT as an exploratory tool for developing mathematical understanding and when solving problems
- develop skills in the communication, selection, use and interpretation of their mathematics
- enjoy mathematics and develop confidence in using mathematics.

(AQA, 2020, p27)

Assessment Objectives

AO1: Use and apply standard techniques (weighting 25-30%).
AO2: Select appropriate techniques to solve problems in a mathematical or non-mathematical context and analyse data and represent situations mathematically (weighting 31-40%).
AO3: Devise strategies to solve problems where the method is not obvious and communicate processes and results (weighting 31-40%).

(AQA, 2020, p27-28)

Pupil Requirements

Students studying Core Maths (Level 3 – Mathematical Studies) are expected to have achieved a grade 5 or above at GCSE having studied the Higher specification. They will also be expected to purchase a Casio fx-991EX calculator.

Examination Information

Paper 1

60 marks – 90 minutes

1. Analysis of Data
   a. Types of data and sampling methods.
   b. Measures of spread.
   c. Representing data through histograms, cumulative frequency, box plots and stem and leaf diagrams.

2. Personal Finance
   a. Budgeting
   b. Income tax and National insurance.
   c. VAT and
   d. APR, mortgages & debt.
   e. AER & savings.
   f. Exchange rates.
   g. Inflation.

3. Modelling and Estimation
   a. Standard form
   b. Estimation techniques (Fermi estimations and stating assumptions, subdividing, and scaling)
   c. Useful facts, formulae, and lessons from history.

Paper 2

60 marks – 90 minutes

4. Critical Analysis
   a. What critical analysis is.
   b. Clarity and coincidence.
   c. Selectivity of data and misleading with data.
   d. Sampling and trialling.
   e. Critical analysis of models.

Option A – Statistical Techniques

5. Normal Distribution
   a. Features of the normal distribution.
   b. Standard normal distribution and calculating probabilities.

6. Confidence Intervals
   a. Quality control.
   b. The sample mean.
   c. Confidence intervals.

7. Correlation and Regression
   a. Lines of best fit.
   b. Regression lines.
   c. Pearson's product moment correlation coefficient (PMCC).

Option B - Critical Path and Risk Analysis

8. Critical Path Analysis
   a. Networks, algorithms, and activity networks.
   b. Early and late times and critical activities.
   c. Gantt charts.

9. Expectation
   a. Venn diagrams.
   b. Equally likely events.
   c. The birth of probability theory,
   d. Probability and tree diagrams.
   e. Conditional probability and expected value.

10. Cost-Benefit Analysis
   a. Cost-benefit principle.
   b. Control measures and uncertainty.
   c. Insurance myths.

Option C – Graphical Techniques

11. Graphical Methods
   a. Understanding graphs.
   b. Linear graphs and sketching.
   c. Solving equations graphically.

12. Rates of Change
   a. Straight line graphs.
   b. Estimating the gradient of a curve.
   c. Optimisation.
   d. Speed and acceleration.

13. Exponential Functions
   a. Exponential growth and functions.
   b. e, the base of choice.
   c. Exponential function e^x
   d. The need for inverse functions.
   e. Solving $a = b^x$

Internal Assessments

Approx. Date	Assessment		Potential Topics Covered	Additional info
October	Baseline	1	Percentages and averages; standard deviation with comparison; box plot and IQR; stem and leaf; cumulative frequency; estimation.	Assessment to cover some assumed GCSE knowledge alongside some new content taught from the beginning of this course. (No paper 2 if one teacher)
		2	Scatter graphs and correlation; PMCC; calculating and plotting regression lines.	
November	LP1	1	Box plot and IQR with comparison; histograms; standard deviation; percentages and fractions; estimation; tax and NI	If taught by one teacher paper 2 not taught yet.
		2	PMCC; scatter graphs and correlation; probability; confidence intervals; standard deviation and mean.	
January/February	LP2	1	Estimation; student loads; income tax; national insurance; APR and loans.	Paper 1 complete by now so any topics eligible. Place greater focus on paper 2.
		2	Analysis of data; PMCC; equation of regression line; standard deviation; normal distribution.	
March	LP3*	1		*Potential mock paper.
		2		

Additional Dates

- Parent's evening – January
- Exam: Paper 1 –
- Exam: Paper 2 –

Abbreviations Used

- PK: Prior Knowledge
- DF: Developed Further
- LP: Learning Programme

Other Notes

- The lesson breakdown is written as a guide; depending on the group's ability and prior knowledge some lessons may take more or less than a 1-hour teaching slot as deemed suitable by the teaching staff.
- GCSE to Core transition booklet included to support students as they move from KS4 to KS5 (Core Maths\0. Introduction)
- Based on 2020-21, advise that paper 1 teacher starts with estimation (chapter 3) as it is a new topic which will engage the interest of students.
- Embed preliminary material as required – make specific lesson time during each paper teaching on this.

PAPER 1

1: Analysis of Data

Assumed Knowledge	Key Objectives
• Calculating proportion. • Calculating a fraction of an amount. • Mean, median, mode and range. • Stem and leaf diagrams. • Drawing box plots. • Cumulative frequency graphs. • Basic histograms.	• Understanding sampling. • Construct stem and leaf diagrams and finding the mode and median. • Calculate the standard deviation. • Calculate IQR and construct box plots to compare data sets. • Can calculate outliers of a data set as $\pm(1.5 \times \text{IQR})$ and show on a box plot. • Construct and interpret cumulative frequency diagrams to form conclusions about data sets. • Draw and interpret histograms to form conclusions about data sets.

L	Lesson Objective	Learning Outcomes	GCSE	Textbook	Resources
1	**Understanding types of data and introducing methods of sampling.**	Understand the difference between primary and secondary data.		Chapter 1.1 Page 10-11	Core Maths\1. Analysis of Data • PPT 1 • Handout 1a & 1b • Homework 1
		Understand the difference between qualitative and quantitative data.	PK		
		Apply the stratified sampling method.	PK		
2	**Representing data using back-to-back stem and leaf diagrams.**	Can choose a correct sampling method and explain why or why not it is suitable.		Chapter 1.2 Page 14-15	Core Maths\1. Analysis of Data • PPT 2 • Handout 2 • Excel Starter Answers 2
		Can sort clustered data into back-to-back stem and leaf diagrams.	DF		
		Can find the mode and median for each data cluster from a back-to-back stem and leaf diagram.	DF		

3	**Calculating the standard deviation and IQR.**	Can recall mean, median and mode and range.	PK	Chapter 1.3 Page 16-17	Core Maths\1. Analysis of Data • PPT 3 • Handout 3a & 3b • Worksheet 3 • Homework 3
		Can calculate the median, LQ, UQ and IQR of a data set and look it up using a calculator.	DF		
		Can calculate standard deviation using a calculator.			
4	**Constructing and comparing box and whisker plots.**	Can construct a box and whisker plot having calculated or looked up the relevant values on a calculator.	DF	Chapter 1.3-1.4 Page 16-21	Core Maths\1. Analysis of Data • PPT 4 • Handout 4a & 4b • Worksheet 4
		Can calculate outliers of a set of data and show them on a box plot.	DF		
		State conclusions and make comparisons based on box and whisker plots.	DF		
5	**Using cumulative frequency graphs to interpret and compare data sets.**	Can complete a cumulative frequency table and construct a cumulative frequency curve.	PK	Chapter 1.5 Page 26-29	Core Maths\1. Analysis of Data • PPT 5 • Handout 5 • Worksheet 5a - Matching task • Worksheet 5b – Exam Qs
		Can estimate the median, LQ, UQ and IQR by using a cumulative frequency curve.	PK		
		Can use a cumulative frequency curve to answer questions about, and make comparisons of, data sets.	DF		
6	**Drawing and interpreting histograms.**	Recall that frequency is shown by the area of a bar for a histogram.	PK	Chapter 1.6 Page 34-35	Core Maths\1. Analysis of Data • PPT 6 • Handout 6a & 6b • Worksheet 6
		Can construct histograms from a given data set.	PK		
		Can interpret histograms to draw conclusions and solve problems.	DF		

7	**Choosing the most appropriate method.**	Can choose the most appropriate measure of average and spread to best represent the data and justify this decision.	DF	Chapter 1.7 Page 38-40	Core Maths\1. Analysis of Data • PPT 7 • Handout 7
		Can choose the most suitable chart to represent the given data.	PK		
		Can assess data given using both the above by identifying errors and listing improvements that could be made.			

2: Personal Finance

Assumed Knowledge	Key Objectives
• Budgeting from a bank statement. • Percentage of an amount. • Percentage increase and decrease. • Using multipliers. • Simple and compound interest. • Substitution into formulae. • Exchange rates.	• Calculate deductions from salaries including income tax, national insurance, student loan. • Using APR to understand loans. • Understanding mortgages. • Using AER to understand savings and investment. • Working with exchange rates. • Calculating VAT and other percentages. • Understanding and calculating inflation.

L	Lesson Objective	Learning Outcomes	GCSE	Textbook	Resources
1	**Revising percentages** *(Optional)*	Can calculate percentage change & reverse percentages.	PK	N/A	Core Maths\2. Personal Finance • PPT 1 • Handout 1 • Worksheet 1
		Can calculate percentage increase and decrease.	PK		
		Can calculate simple and compound interest.	PK		
2	**Calculating Income Tax**	Can read and complete a bank statement.	PK	Chapter 2.1-2.2 Page 50-53	Core Maths\2. Personal Finance • PPT 2 • Handout 2a & 2b
		Can identify which bands of tax a salary will fall into.			
		Can calculate the income tax for a given salary.			

3	**Calculating National Insurance**	Can calculate NI contributions for a given salary.		Chapter 2.3 Page 54-57	Core Maths\2. Personal Finance • PPT 3 • Handout 3
		Can calculate net pay for a given salary.			
		Understands how to calculate the above in terms of weekly or monthly (exam q's vary).			
4	**Calculating Student Loan contributions**	Can differentiate between loan plans for the given timeline.		Chapter 2.4 Page 58-59	Core Maths\2. Personal Finance • PPT 4 • Handout 4
		Can calculate the total loan amount including interest applied yearly.			
		Can calculate the first repayment amount.			
5a	**Working with APR: Loan value & finding the APR**	Can calculate the original amount borrowed using the APR formula.		Chapter 2.5 Page 60-62	Core Maths\2. Personal Finance • PPT 5a • Handout 5a – Loan Value • Handout 5a – Finding APR
		Can calculate the APR and determine if the stated APR is correct.			
		Can compare loan offers and choose which is best.			
5b	**Working with APR: Finding a payment & each instalment**	Can calculate a missing repayment.		Chapter 2.5 Page 60-62	Core Maths\2. Personal Finance • PPT 5b • Handout 5b
		Can calculate the value of equal instalments paid.			

5c	**Working with APR: Calculating a single repayment**	Can rearrange the APR formula to make i the subject.		Chapter 2.5 Page 60-62	Core Maths\2. Personal Finance • PPT 5c • Handout 5c
		Can calculate the APR for a loan repaid in a single repayment.			
		Can calculate APR for single repayments and compare loans.			
6a	**Mortgages: Finding the remaining balance**	Understand what a mortgage is and how it operates.		Chapter 2.6 Page 64-65	Core Maths\2. Personal Finance • PPT 6a • Handout 6a
		Can write a recurrence relation for a mortgage.			
		Can calculate remaining balance for a mortgage given loan amount, interest, year, and repayment amount.			
6b	**Mortgages: Calculating repayments**	Recognises that in many cases the balance remaining on a mortgage can increase initially due to interest (link to previous lesson).		Chapter 2.6 Page 64-65	Core Maths\2. Personal Finance • PPT 6b • Handout 6b
		Understand the given formula for repayments (N being total number of repayments).			
		Can substitute values into the formula to find a repayment amount.			
6c	**Mortgages: Calculating interest**	Can calculate the balance remaining.		Chapter 2.6 Page 64-65	Core Maths\2. Personal Finance • PPT 6c • Handout 6c
		Can use the amount owed and amount paid to calculate the value of interest.			
		Can determine if a statement about interest is true.			

7	**AER**	Recall simple and compound interest and solve problems.	PK	Chapter 2.7 Page 66-67	Core Maths\2. Personal Finance • PPT 7 • Handout 7a & 7b
		Calculate AER using the given formulae or as a percentage.			
		Use the AER to provide comment or justification.			
8	**Vat and Other Percentages**	Can calculate a new amount after VAT has been applied.	PK	Chapter 2.8 Page 68-69	Core Maths\2. Personal Finance
		Can calculate the original cost before VAT applied given the cost after (reverse percentages)	DF		
		Solve budgeting and finance problems including VAT	DF		
9	**Exchange Rates**	Can convert currency using a given exchange rate.	PK	Chapter 2.9 Page 70-71	Core Maths\2. Personal Finance • PPT 9 • Handout 9 • Worksheet 9
		Can compare value of items in different currencies.	PK		
		Understand currency exchange terminology: e.g. bid and ask.			
10	**Inflation**	Understand what inflation is		Chapter 2.10 Page 72-73	Core Maths\2. Personal Finance
		Understand the effect of RPI and CPI			
		Calculate adjustments using RPI and CPI			

3: Modelling and Estimation

Assumed Knowledge	Key Objectives
• Estimation by rounding to significant figures. • Volume of cuboids and cylinders. • Index laws. • Converting to and from standard form. • Calculating with standard form. • Calculating percentages.	• Understand the use of assumptions is required to constrain a problem. • Understand that problems can modelled based on the assumptions made. • Can state clear assumptions that direct and support the modelling and calculations completed. • Can critique their estimation and indicate refinements that could improve it. • Are aware of estimated values for typical information required (e.g. Earth's human population).

L	Lesson Objective	Learning Outcomes	GCSE	Textbook	Resources
1	**Exploring estimation: an introduction**	Recall estimation by rounding to 1 significant figure.	PK	Chapter 3.3-3.4 Page 86-90	Core Maths\3. Estimation • PPT 1 • Handout 1a & 1b • Worksheet 1 • Homework 1
		Estimate values for given contexts (age, height, quantity).			
		State assumptions to help refine a given problem.			
2	**Estimation: an investigation**	Develop writing of assumptions.		Chapter 3.5 Page 92-93	Core Maths\3. Estimation • PPT 2 • Excel Calcs 2 • Worksheet 2a – map • Worksheet 2b – task
		Identifying information needed to solve a problem.			
		Solving a typical Fermi estimation problem: can the world's population fit on the Isle of Wight?			

3	**Estimation: exam questions**	Understand how to simplify and constrain an exam question by making assumptions.		Chapter 3.6 – 3.7 Page 94-97	Core Maths\3. Estimation • PPT 3 • Worksheet 3
		Estimate & calculate suitable values for the required information to solve the problem.			
		Stating clear assumptions to demonstrate working and indicate refinements to help improve your estimation.			

PAPER 2

4: Critical Analysis

Assumed Knowledge	Key Objectives
• How to interpret graphs and charts. • Able to pick out information from text.	• Pick out information of text and analyse it from a scrutinous standpoint. • Understand that although data can be accurate and analysed correctly, it can still be misleading. • Recognising indicators of misleading/vague language. • Compare correlation and causation, knowing which event caused the other.

L	Lesson Objective	Learning Outcomes	GCSE	Textbook	Resources
1	**Understand and Apply Critical Analysis**	Applying logical reasoning to a given scenario.		Chapter 4.1 Page 104-105	Core Maths\4. Critical Analysis • PPT 1 • Worksheet 1
		Form well-structured arguments from robust evidence.			
		Form an appropriate conclusion.			
2	**Understand Clarity of Arguments**	Understand how different types of language can effect the clarity of an argument.		Chapter 4.2 Page 106-107	Core Maths\4. Critical Analysis • PPT 2
		To comment on/analyse the strength of an argument.			
		To draw conclusions based on an argument.			

3	**Selectivity of Data**	Understand that data can be selected in such a way that it proves the point of the person conducting the investigation.		Chapter 4.3 Page 108-109	Core Maths\4. Critical Analysis • PPT 3
		To find indications in articles showing that data has been misrepresented.			
4	**Sampling and Trailing**	Understand the process of a clinical trial.		Chapter 4.4 Page 110-111	Core Maths\4. Critical Analysis • PPT 4a • Homework 4 • PPT 4b – Application Task
		Recognise the importance of fair sampling and what a sample should include.			
		Understand the importance of placebos and control groups.			
5	**Misleading with Data**	Interpret graphs and charts.	PK	Chapter 4.5 Page 112-113	Core Maths\4. Critical Analysis • PPT 5
		Recognise misleading features of graphs and identify improvements.			
6	**Coincidence**	Understand types of correlation.	PK	Chapter 4.6 Page 114-115	Core Maths\4. Critical Analysis • PPT 6
		Relate correlation to causation. Work out which event causes the other.	DF		
		Identify possible causal links from articles.			
7	**Critical analysis of models**	Analyse and interpret climate change models.		Chapter 4.7 Page 116-117	Core Maths\4. Critical Analysis • PPT #
		Critically analyse arguments made based on models.			

PAPER 2A

5: The Normal Distribution

Assumed Knowledge	Key Objectives
• Rules of probability • Measures of average • Standard deviation	• Understand many things closely follow a normal distribution • Recognise and use a bell shaped curve • Understand normal distribution is symmetrical • Understand the area under the bell curve represents probability • knowledge that approximately two thirds of observations lie within 1 standard deviation of the mean and that approximately 95% of observations lie within 2 standard deviations of the mean • **NOTE: Students are not required to be able to find an unknown mean or standard deviation from a normal distribution for this course.**

L	Lesson Objective	Learning Outcomes	GCSE	Textbook	Resources
1	**Features of a normal distribution**	Understand many things closely follow a normal distribution		Chapter 5.1 Page 122-123	Core Maths\ 5. Normal Distribution
		Recognise and use a bell shaped curve and know it is symmetrical			
		Understand the area under the bell curve represents probability			
2	**The standard normal distribution**	Understand the link between standard deviation and the mean of a normal curve.		Chapter 5.2 Page 126-127	Core Maths\ 5. Normal Distribution
		Calculate the mean to describe a normal distribution			
		Calculate the variance to describe a normal distribution			

3	**Calculating probabilities using a normal distribution**	Understand the area under the curve shows the probability		Chapter 5.3 Page 128-131	Core Maths\ 5. Normal Distribution
		Use calculator to find a probability for a normal distribution			

6: Confidence Intervals

Assumed Knowledge	Key Objectives
• Measures of average • Standard deviation • Sampling	• Calculate standard error • Construct confidence intervals • Use confidence intervals to effectively analyse claims made • Understanding that the mean of a sample is called a ‘point estimate’ for the mean of the population • Understand the larger sample, the greater the accuracy • Calculating sample mean and finding standard deviation and variance from this.

L	Lesson Objective	Learning Outcomes	GCSE	Textbook	Resources
1	**Quality Control**	Understanding that the mean of a sample is called a ‘point estimate’ for the mean of the population.		Chapter 6.1 Page 138-139	Core Maths\6. Confidence Intervals
		Calculate a point estimate for the mean.	DF		
2	**The Sample Mean**	Can calculate standard error.		Chapter 6.2 Page 140-141	Core Maths\6. Confidence Intervals
		Understand the larger sample, the greater the accuracy			
		Calculate sample mean and use this to find probabilities.			

3	**Constructing 95% Confidence Intervals**	Understand the application of confidence intervals		Chapter 6.3 Page 142-143	Core Maths\6. Confidence Intervals
		Can calculate a 95% confidence interval			
		Justify claims based on given confidence intervals			
4	**Constructing 98% and other Confidence Intervals**	Can calculate a 98% confidence interval		Chapter 6.3 Page 142-143	Core Maths\6. Confidence Intervals
		Can calculate a confidence interval given a percentage (e.g. 90%)			
		Justify claims based on given confidence intervals			

7: Correlation and Regression

Assumed Knowledge	Key Objectives
• Describing correlation • Scatter graphs • Lines of best fit	• Develop understanding of correlation • Calculate the PMCC • Calculate and plot regression lines • Use regression equations to calculate values • Appreciating the significance of a positive, zero or negative value of PMCC in terms of correlation of data • Understanding that PMCC always has a value in the range from – 1 to + 1 • Understanding that the strength of correlation is given by the PMCC

L	Lesson Objective	Learning Outcomes	GCSE	Textbook	Resources
1	**Correlation and Lines of Best fit**	Understand correlation & draw lines of best fit	PK	Chapter 7.1 Page 150-152	Core Maths\ 7. Correlation and Regression
		Understand the significance of a positive, zero or negative value of pmcc in terms of correlation of data			
2	**Product Moment Correlation Coefficient**	Understand what the PMCC represents and its range $-1 \leq r \leq 1$		Chapter 7.3 Page 162-163	Core Maths\ 7. Correlation and Regression
		Calculate the PMCC			
		Use the PMCC to describe correlation in context			

3	**Calculating & Using Regression Lines**	Calculate values for regression line equation		Chapter 7.2 Page 156-158	Core Maths\ 7. Correlation and Regression
		Plot regression line			
		Compare regression line with LOBF and make predictions			

8: Revision – Paper 1

Assumed Knowledge	Key Objectives
• All previous chapters	• To consolidate learning • Practice exam questions • Develop exam technique

L	Lesson Objective	Learning Outcomes	GCSE	Revision Guide	Resources
1	**Analysis of Data**	To consolidate learning of this chapter and develop confident exam technique.	PK	Page 4-13	Core Maths\ 8. Revision
2	**Representing Data**	To consolidate learning of this chapter and develop confident exam technique.	PK	Page 14-17	Core Maths\ 8. Revision
3	**Tax and NI**	To consolidate learning of this chapter and develop confident exam technique.	PK	Page 28	Core Maths\ 8. Revision

4	**Student Loans**	To consolidate learning of this chapter and develop confident exam technique.	PK	Page 24-25	Core Maths\ 8. Revision
5	**APR**	To consolidate learning of this chapter and develop confident exam technique.	PK	Page 23	Core Maths\ 8. Revision
6	**AER**	To consolidate learning of this chapter and develop confident exam technique.	PK	Page 23	Core Maths\ 8. Revision
7	**Estimation**	To consolidate learning of this chapter and develop confident exam technique.	PK	Page 32-39	Core Maths\ 8. Revision
8	**Paper 1 Mixed Revision**	To effectively answer exam questions on any topic in Paper 1.	PK		Core Maths\ 8. Revision

8: Revision – Paper 2A

Assumed Knowledge	Key Objectives
• All previous chapters	• To consolidate learning • Practice exam questions • Develop exam technique

L	Lesson Objective	Learning Outcomes	GCSE	Revision Guide	Resources
1	**Critical Analysis**	To consolidate learning of this chapter and develop confident exam technique.	PK	Page 42-53	Core Maths\ 8. Revision
2	**Normal Distribution**	To consolidate learning of this chapter and develop confident exam technique.	PK	Page 56-58	Core Maths\ 8. Revision
3	**Confidence Intervals**	To consolidate learning of this chapter and develop confident exam technique.	PK	Page 60-66	Core Maths\ 8. Revision
4	**Correlation and Regression**	To consolidate learning of this chapter and develop confident exam technique.	PK	Page 68-71	Core Maths\ 8. Revision

9: Preliminary Material

Assumed Knowledge	Key Objectives
• All chapters relevant to the preliminary material chosen	• To consolidate dissect and interpret preliminary material • To apply the preliminary material to exam questions.

L	Lesson Objective	Learning Outcomes	GCSE	Textbook	Resources
1	**Paper 1 Preliminary**	To develop use of preliminary material in answering questions.			Core Maths\ 9. Revision
		Develop fermi estimation skills.			
		To develop written communication skills to present findings.			
2	**Paper 2 Preliminary**	To develop use of preliminary material in answering questions.			Core Maths\ 9. Revision
		Develop critical analysis skills using given preliminary material.			
		To develop written communication skills to present findings.			

References

AQA (2020), L*evel 3 Mathematical Studies (1350): Specification V1.3* [online]. Available at: https://filestore.aqa.org.uk/resources/mathematics/specifications/AQA-1350-SP-2014.PDF (Accessed: 11/09/20)