Mathematics Department
C3 - Planning

Time	Chapter	Reference
2 to 3 Lessons 1:1 & 1.2 1:3 & 1:4 **And** **4 Lessons** 2.1 & 2,2 2.3 2.4 2.5 **Continued!**	**1. Algebra and Functions** 1.1 Simplify algebraic fractions by cancelling common factors 1.2 Multiplying and dividing algebraic fractions 1.3 Adding and subtracting algebraic fractions 1.4 Dividing algebraic fractions and the remainder theorem **Summary of Key Points** 2.1 Mapping diagrams and graphs of operations 2.2 Functions and function notation 2.3 Range, mapping diagrams, graphs and definitions of functions 2.4 Using composite functions 2.5 Finding and using inverse functions **Summary of Key Points**	 Exercise 1A Exercise 1B Exercise 1C Exercise 1D **Mixed Exercise 1E** Exercise 2A Exercise 2B Exercise 2C Exercise 2D Exercise 2E **Mixed Exercise 2F**

3 to 4 Lessons 5.1 to 5.3 5.4 5.5	5.1 Sketching graphs of the modulus function y = I f(x) I	Exercise 5A
	5.2 Sketching graphs of the function y = f (I x) I	Exercise 5B
	5.3 Solving equations involving a modulus	Exercise 5C
	5.4 Applying a combination of transformations to sketch curves	Exercise 5D
	5.5 Sketching transformations and labelling the co-ordinates of a given point.	Exercise 5E
	Summary of Key Points	**Mixed Exercise 5F**
4 to 5 Lessons 6.1 & 6.2 6.3 6.4 6.5	**2. Trigonometry** 6.1 The functions secant θ, cosecant θ and cotangent θ	Exercise 6A
	6.2 The graphs of secant θ, cosecant θ and cotangent θ	Exercise 6B
	6.3 Simplifying expressions, proving identities, and solving equations using sec θ , cosec θ and cot θ	Exercise 6C
	6.4 Using the identities $1 + \tan^2 \theta = \sec^2 \theta$ and $1 + \cot^2 \theta = \mathrm{cosec}^2\theta$	Exercise 6D
And	6.5 Using inverse trig functions and their graphs	Exercise 6E
Continued	**Summary of Key Points**	**Mixed Exercise 6F**
	7.1 Using addition trig identities and their applications	Exercise 7A

4 to 5 lessons 7.1 7.2 7.3 7.4 7.5	7.2 Using double angle trig formulae	Exercise 7B
	7.3 Solving equations and proving identities using double angle formulae	Exercise 7C
	7.4 Using the form $a\cos\theta + b\sin\theta$ in solving trig problems	Exercise 7D
	7.5 The factor formulae	Exercise 7E
	Summary of Key Points	**Mixed Exercise 7F**
3 lessons 3.1 3.2 3.3	**3. Exponentials & Logarithms** 3.1 Introducing exponential functions of the form $y = a^a$	
	3.2 Graphs of exponential functions and modelling using $y = e^x$	Exercise 3A
	3.3 Using e^x and the inverse of the exponential function $\log_e x$	Exercise 3B
	Summary of Key Points	**Mixed Exercise 3C**
5 to 6 Lessons 8.1 8.2 & 8.3 8.4 & 8.5 8.6 & 8.7 & 8.8 8.9 & 8.10	**4. Differentiation** 8.1 Differentiating using the chain rule	Exercise 8A
	8.2 Differentiating using the product rule	Exercise 8B
	8.3 Differentiating using the quotient rule	Exercise 8C

	8.4 Differentiating using the exponential function	Exercise 8D
	8.5 Finding the differential of the logarithmic function	Exercise 8E
	8.6 Differentiating sin x	Exercise 8F
	8.7 Differentiating cos x	Exercise 8G
	8.8 Differentiating tan x	Exercise 8H
	8.9 Differentiating further trig functions	Exercise 8I
	8.10 Differentiating functions formed by combining trig, exponential, logarithmic and polynomial functions	Exercise 8J
	Summary of Key Points	**Mixed Exercise 8K**
3 Lessons 4.1 4.2 (2 lessons)	**5. Numerical methods** 4.1 Finding approximate roots of f(x) = 0 graphically	Exercise 4A
	4.2 Using iterative and algebraic methods to find approximate roots of f(x) = o	Exercise 4B
	Summary of Key Points	**Mixed Exercise 4C**