Mathematics Department
C2 - Planning

Time	Chapter	Reference
5 Lessons 1:1 1.2 (2 lessons) 1:3 1:4	**1. Algebra and Functions** 1.1 Simplifying algebraic fractions by division 1.2 Dividing a polynomial by (x ± p) 1.3 Factorising a polynomial using the Factor Theorem 1.4 Using the Remainder Theorem **Summary of Key Points**	 Exercise 1A Exercise 1B & 1C Exercise 1D Exercise 1E **Mixed Exercise 1F**
5 Lessons 4:1 (2 lessons) 4:2 (2 lessons) 4.3 (1 lesson)	**2. Coordinate geometry in the (*x*,*y*) plane** 4.1 The midpoint of a line 4.2 The distance between two points of a line 4.3 The equation of a circle **Summary of Key Points**	 Exercises 4A & 4B Exercises 4C & 4D Exercise 4E **Mixed Exercise 4F**

3 to 4 Lessons	**3. Sequences and series**	
7.1,7.2 & 7.3 **7.4** **7.5**	7.1 Geometric sequences	Exercise 7A,
	7.2 Geometric progressions & the *n*th term of a sequence	Exercise 7B
	7.3 Using geometric sequences to solve problems	Exercise 7C
And	7.4 The sum of a geometric sequence	Exercise 7D
3 to 4 lessons	7.5 The sum to to infinity of a geometric series	Exercise 7E
5.1 & 5.2 **5.3** **5.4**	**Summary of Key Points**	**Mixed Exercise 7F**
	5.1 Pascal's Triangle	Exercise 5A
	5.2 Combinations and factorial notation	Exercise 5B
	5.3 Using $\binom{n}{r}$ in the Binomial expansion	Exercise 5C
	5.4 expanding $(a + bx)^n$ using the binomial expansion	Exercise 5D
	Summary of Key Points	**Mixed exercise 5E**
	4. Trigonometry	
5 Lessons	2.1 Using the Sine rule to find missing sides	Exercise 2A
2.1 2.2 & 2.3	2.2 Using the Sine rule to find unknown angles	Exercise 2B

2.4 & 2.5 2.6 2.7 **And** **3 lessons** 6.1, 6.2 6.3 & 6.4 **And** **4 lessons** 8.1, 8.2, 8.3 8.4 & 8.5 **And** **4 lessons** 10.1, 10.2, 10.3 10.4	2.3 The rule and finding two solutions for a missing angle 2.4 Using the cosine rule to find an unknown side 2.5 Using the Cosine rule to find a missing angle 2.6 Using the Sine rule, the cosine rule and Pythagoras' theorem. 2.7 Calculating the area of a triangle using sine. **Summary of Key Points** 6.1 Using radians to measure angles 6.2 The length of the arc of a circle 6.3 The area of a sector of a circle 6.4 The area of a segment of a circle **Summary of Key Points** 8.1 Sine, cosine and tangent functions 8.2 The values of trigonometric functions in the four quadrants 8.3 Exact values and surds for trig functions 8.4 Graphs of Sine θ, Cos θ and Tan θ 8.5 Simple transformations of Sine θ, Cos θ and Tan θ **Summary of Key Points**	Exercise 2C Exercise 2D Exercise 2E Exercise 2F Exercise 2G **Mixed Exercise 2G** Exercise 6A Exercise 6B Exercise 6C **Mixed Exercise 6D** Exercises 8A & 8B Exercise 8C Exercise 8D Exercise 8E Exercise 8F **Mixed Exercise 8G**

	10.1 Simple trig identities 10.2 Solving simple trig equations 10.3 Solving equations of the form $\sin(n\theta + \alpha)$, $\cos(n\theta + \alpha)$ and $\tan(n\theta + \alpha) = k$ 10.4 Solving quadratic trig equations **Summary of Key Points**	Exercise 10A Exercise 10B Exercise 10C Exercsie 10D **Mixed Exercise 10E**
2 to 3 Lessons 3:1 & 3:2 & 3:3 3:4 & 3.5 3:6	**5. Exponential and logarithms** 3.1 The function $y = a^a$ 3.2 Writing expressions as logarithms 3.3 Calculating using logarithms to base 10 3.4 Laws of logarithms 3.5 Solving equations of the form $a^x = b$ 3.6 Changing the base of logarithms **Summary of Key Points**	Exercise 3A Exercise 3B Exercise 3C Exercise 3D Exercise 3E Exercise 3F **Mixed Exercise 3G**

4 Lessons 9:1 9:2 9:3 (2 lessons)	**6. Differentiation** 9.1 Increasing & decreasing functions 9.2 Stationary points, maximum, minimum and points of inflexion 9.3 Using turning points to solve problems **Summary of Key Points**	 Exercise 9A Exercise 9B Exercise 9C **Mixed Exercise 9D**
4 Lessons 11:1 & 11.2 11:3 & 11:4 11.5 (2 lessons)	**7. Integration** 11.1 Simple definite integration 11.2 Area under a curve 11.3 Area under a curve that gives negative values 11.4 Area between a straight line and a curve 11.5 the trapezium rule **Summary of Key Points**	 Exercise 11A Exercise 11B Exercise 11C Exercise 11D Exercise 11E **Mixed Exercise 11F**