

W/c	Week	Teacher 1 (Pure and Decision) DMI			Teacher 2 (Pure) HAG	Teacher 3 (Pure) IPR	
02/09	1						
09/09	2	Core Pure ch 3 (Series)	Core Pure ch 3 (Series)		Core Pure ch 1 (Complex Numbers)	Core Pure ch 1 (Complex Numbers)	Core Pure ch 1 (Complex Numbers)
16/09	3	Core Pure ch 3 (Series)	Core Pure ch 3 (Series) <b>DIRT</b>	Catch Up	Core Pure ch 1 (Complex Numbers)	Core Pure ch 1 (Complex Numbers)	
23/09	4	Core Pure ch 4 (Roots and Polynomials)	Core Pure ch 4 (Roots and Polynomials)		Core Pure ch 1 (Complex Numbers)	Core Pure ch 1 (Complex Numbers)	Core Pure ch 1 (Complex Numbers) <b>DIRT</b>
30/09	5	Core Pure ch 4 (Roots and Polynomials)	Core Pure ch 4 (Roots and Polynomials)	Core Pure ch 4 (Roots and Polynomials)	Core Pure ch2 (Argand Diagrams)	Core Pure ch2 (Argand Diagrams)	
07/10	6	Core Pure ch 4 (Roots and Polynomials)	Core Pure ch 4 (Roots and Polynomials)		Core Pure ch2 (Argand Diagrams)	Core Pure ch2 (Argand Diagrams)	Core Pure ch2 (Argand Diagrams)
14/10	7	Core Pure ch 4 (Roots and Polynomials) <b>DIRT</b>	Catch Up	Decision ch1 (Algorithms)	Core Pure ch2 (Argand Diagrams)	Core Pure ch2 (Argand Diagrams)	
21/10	8	Decision ch1 (Algorithms)	Decision ch1 (Algorithms)		Core Pure ch2 (Argand Diagrams)	Core Pure ch2 (Argand Diagrams) <b>DIRT</b>	Catch Up
Half Term							
04/11	9	Decision ch1 (Algorithms) <b>DIRT</b>	Assessment Pure (Chap 1-4)	Decision ch2 (Graphs and networks)	Catch Up	Catch Up	
11/11	10	Decision ch2 (Graphs and networks)	Decision ch2 (Graphs and networks)		Core Pure ch6 (Matrices)	Core Pure ch6 (Matrices)	Core Pure ch6 (Matrices)
18/11	11	Decision ch3 (Algorithms on graphs)	Decision ch3 (Algorithms on graphs)	Decision ch3 (Algorithms on graphs)	Core Pure ch6 (Matrices)	Core Pure ch6 (Matrices)	
25/11	12	Decision ch3 (Algorithms on graphs) <b>DIRT</b>	Catch up		Core Pure ch6 (Matrices)	Core Pure ch6 (Matrices)	Core Pure ch6 (Matrices)
02/12	13	Decision ch4 (Route inspection)	Decision ch4 (Route inspection)	Decision 2 ch3 Algorithms on Graphs	Core Pure ch6 (Matrices)	Core Pure ch6 (Matrices)	
09/12	14	Decision 2 ch3 Algorithms on Graphs	Decision 2 ch3 Algorithms on Graphs		Core Pure ch6 (Matrices)	Core Pure ch6 (Matrices) <b>DIRT</b>	Core Pure ch7 (Linear Transform)
16/12	15	Decision 2 ch3 Algorithms on Graphs	Decision 2 ch3 Algorithms on Graphs	Decision 2 ch3 Algorithms on Graphs	Core Pure ch7 (Linear Transform)	Core Pure ch7 (Linear Transform)	
Christmas Holiday							
06/01	16	Decision 2 ch3 Algorithms on Graphs	Assessment Decision (Ch 1-4 + Ch 3)		Core Pure ch7 (Linear Transform)	Core Pure ch7 (Linear Transform)	Core Pure ch7 (Linear Transform)
13/01	17	Decision 2 ch2 Allocation Problems	Decision 2 ch2 Allocation Problems	Decision 2 ch2 Allocation Problems	Core Pure ch7 (Linear Transform)	Core Pure ch7 (Linear Transform)	
20/01	18	Decision 2 ch2 Allocation Problems	Decision 2 ch2 Allocation Problems <b>DIRT</b>		Core Pure ch7 (Linear Transform)	Catch Up	Assessment Pure (Chap 6-7)
27/01	19	Catch Up	Decision ch6 (Linear Programming)	Decision ch6 (Linear Programming)	Core Pure ch8 (Proof by induction)	Core Pure ch8 (Proof by induction)	
03/02	20	Decision ch6 (Linear Programming)	Decision ch6 (Linear Programming)		Core Pure ch8 (Proof by induction)	Core Pure ch8 (Proof by induction)	Core Pure ch8 (Proof by induction) <b>DIRT</b>

10/02	21	Decision ch6 (Linear Programming)	Decision ch6 (Linear Programming)	Decision ch6 (Linear Programming) <b>DIRT</b>	Core Pure ch9 (Vectors)	Core Pure ch9 (Vectors)	
Half Term							
24/02	22	Decision 2 ch6 (Game Theory)	Decision 2 ch6 (Game Theory)		Core Pure ch9 (Vectors)	Core Pure ch9 (Vectors)	Core Pure ch9 (Vectors)
03/03	23	Decision 2 ch6 (Game Theory)	Catch Up	Decision ch8 (Critical Path Analysis)	Core Pure ch9 (Vectors)	Core Pure ch9 (Vectors)	
10/03	24	Decision ch8 (Critical Path Analysis)	Decision ch8 (Critical Path Analysis)		Core Pure ch9 (Vectors)	Core Pure ch9 (Vectors)	Core Pure ch9 (Vectors)
17/03	25	Decision ch8 (Critical Path Analysis)	Decision ch8 (Critical Path Analysis)	Decision ch8 (Critical Path Analysis)	Core Pure ch9 (Vectors)	Core Pure ch9 (Vectors)	
24/03	26	Decision ch8 (Critical Path Analysis) <b>DIRT</b>	Decision 2 ch7 (Recurrence Relations)		Core Pure ch9 (Vectors)	Core Pure ch9 (Vectors)	Core Pure ch9 (Vectors) <b>DIRT</b>
31/03	27	Decision 2 ch7 (Recurrence Relations)	Decision 2 ch7 (Recurrence Relations)	Decision 2 ch7 (Recurrence Relations)	Core Pure ch5 (Volumes of revolution)	Core Pure ch5 (Volumes of revolution)	
Easter							
21/04	28	Assessment AS Decision Mock	Assessment AS Decision Mock		Core Pure ch5 (Volumes of revolution)	Assessment AS Core Mock	Assessment AS Core Mock
28/04	29	Revision	Revision	Revision	Revision	Revision	
05/05	30	Revision	Revision		Revision	Revision	Revision
12/05	31	Revision	Revision	Revision	Revision	Revision	
19/05	32	Revision	Revision		Revision	Revision	Revision
Half Term							
02/06	33						
09/06	34						
16/06	35						
23/06	36						
30/06	37						
07/07	38						
14/07	39						
21/07	40						

## **Pure Maths**

### **Year 1/AS**

Chapter 1 – Algebraic expressions (not expanding and factorising)

	Topic	Lessons suggested
1.1	Index laws	1 lesson
1.4	Negative and fractional indices	
1.5	Surds	1 lesson
1.6	Rationalise	1 lesson

Total 3 lessons

Chapter 2 – Quadratics (+ expanding and factorising from ch1)

	Topic	Lessons suggested
1.2	Expand brackets	2 lessons
1.3	Factorise	
2.1	Solving quadratics (factorising and formula)	

2.2	Completing the square	
2.3	Functions	1 lesson
2.4	Quadratic graphs	
2.5	Discriminant	1 lesson
2.6	Modelling	1 lesson

Total 5 lessons

### Chapter 3 – Equations and inequalities

	Topic	Lessons suggested
3.1	Linear Simultaneous equations	1 lesson
3.2	Quadratic Simultaneous equations	1 lesson
3.3	Simultaneous equations with graphs (including the discriminant)	1 lesson
3.4	Linear inequalities	1 lesson
3.5	Quadratic inequalities	1 lesson
3.6	Inequality graphs	1 lesson
3.7	Regions	

Total 6 lessons

### Chapter 4 – Graphs and transformations

	Topic	Lessons suggested
4.1	Cubic graphs	1 lesson
4.2	Quartic graphs	1 lesson
4.3	Reciprocal graphs	
4.4	Points of intersection	1 lesson
4.5	Translating graphs	2 lessons
4.6	Stretching graphs	
4.7	Transforming graphs	

Total 5 lessons

### Chapter 5 – Straight line graphs

	Topic	Lessons suggested
5.1	$y = mx + c$	1 lesson
5.2	Equations of straight lines	
5.3	Parallel and perpendicular	1 lesson
5.4	Length and area	1 lesson

5.5	Modelling with lines	1 lesson
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Total 4 lessons

## Chapter 6 – Circles

	Topic	Lessons suggested
6.1	Midpoints	1 lesson
6.2	Equation of a circle	1 lesson
6.3	Intersections of straight lines and circles	1 lesson
6.4	Tangents and chords	1 lessons
6.5	Circles and triangles	1 lesson

Total 5 lessons

## Chapter 7 – Algebraic methods

	Topic	Lessons suggested
7.1	Algebraic fractions	1 lesson
7.2	Divide polynomials	2 lesson
7.3	Factor theorem	1 lesson
7.4	Mathematical proof	1 lesson
7.5	Methods of proof	1 lesson

Total 6 lessons

## Chapter 8 – Binomial Expansions

	Topic	Lessons suggested
8.1	Pascal's triangle	1 lesson
8.2	Factorial notation	1 lesson
8.3	Binomial expansion	1 lesson
8.4	Solving binomial problems	1 lessons
8.5	Binomial estimation	1 lesson

Total 5 lessons

## Chapter 9 – Trigonometric ratios

	Topic	Lessons suggested
9.1	Cosine rule	2 lessons
9.2	Sine rule	
9.3	Area of a triangle	
9.4	Solve triangle problems	1 lesson

9.5	Graphs	1 lesson
9.6	Transforming trigonometric graphs	

Total 4 lessons

#### Chapter 10 – Trigonometric identities and equations

	Topic	Lessons suggested
10.1	Angles in 4 quadrants	1 lesson
10.2	Exact values in trigonometric ratios	
10.3	Trigonometric identities	1 lesson
10.4	Simple trigonometric equations	1 lesson
10.5	Harder trigonometric equations	1 lesson
10.6	Equations and identities	1 lesson
	Revision	1 lesson

Total 6 lessons

#### Chapter 11 – Vectors

	Topic	Lessons suggested
11.1	Vectors	1 lesson
11.2	Representing vectors	
11.3	Magnitude and direction	1 lesson
11.4	Position vectors	1 lesson
11.5	Solving geometrical problems	1 lesson
11.6	Modelling	1 lesson

Total 5 lessons

#### Chapter 12 – Differentiation

	Topic	Lessons suggested
12.1	Gradients of curves	1 lesson
12.2	Finding the derivatives	1 lesson
12.3	Differentiating $x^n$	1 lesson
12.4	Differentiating quadratics	1 lesson

12.5	Differentiating functions with 2 or more terms	
12.8	Second order differentials	1 lesson
12.6	Gradients, tangents and normals	1 lesson
12.7	Increasing and decreasing functions	1 lesson
12.9	Stationary points	1 lesson
12.10	Sketching gradient functions	1 lesson
12.11	Modelling with differentiation	1 lessons

Total 10 lessons

#### Chapter 13 – Integration

	Topic	Lessons suggested
13.1	Integrating $x^n$	1 lesson
13.2	Indefinite integration	1 lesson
13.3	Finding functions	1 lesson
13.4	Definite integration	1 lesson
13.5	Areas under curves	1 lesson
13.6	Areas under x- axis	1 lesson
13.7	Areas between curves and lines	2 lessons

Total 8 lessons

#### Chapter 14 – Exponentials and logarithms

	Topic	Lessons suggested
14.1	Exponential function	1 lesson
14.2	$y = e^x$	
14.3	Exponential modelling	1 lesson
14.4	Logarithms	
14.5	Laws of logarithms	1 lesson
14.6	Solving equations using logarithms	1 lesson
14.7	Working with natural logarithms	1 lesson
14.8	Logarithms and non-linear data	1 lessons
	Chapter assessment	1 lesson

Total 7 lessons

There are chapter assessments for all chapters. Some of these will be completed after-school in period 6:

Baseline assessment

Pure ch 1-4 (algebra, quadratics, inequalities, graphs and transformations)

Pure ch 5/6 (coordinate geometry)

Pure ch 12 (differentiation)

Pure ch 14 (exponentials and logs)

In addition, there are extra chapter assessments which should be completed either in class in test conditions (time permitting) or as a homework

Pure ch 7 and 8 (polynomials and binomial)

Pure ch 9/10 (trig identities and equations)

Pure ch 11 (vectors)

Pure ch 13 (integration)