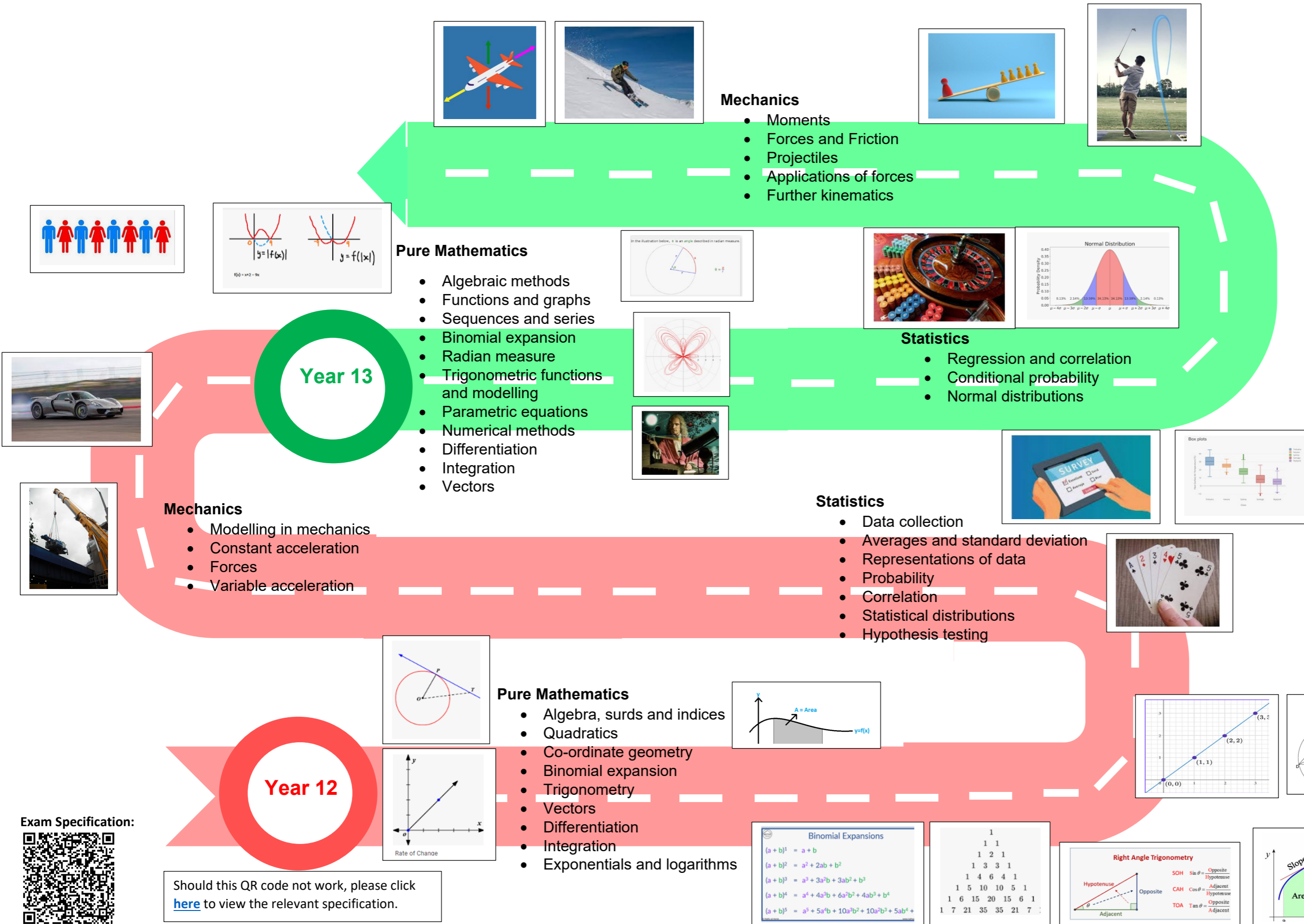




# Gordon's School Mathematics Department



## A-Level - Curriculum Map



**Key Words / Skills:**

**Command words**

**Show that** - Show a result is true. Because you are given the result, your explanation has to be sufficiently detailed to cover every step of your working.

**Hence** - An indication that the next step should be based on what has gone before.

**Prove** - Provide a formal mathematical argument to demonstrate validity.

**Exact** - An exact answer is one where numbers are not given in rounded form.

**Verify** - Substitute given values to demonstrate the truth of a statement.

**Sketch** - Draw a diagram, not necessarily to scale, showing the main features of a curve.

**Determine** - Justification should be given for any results found, including working where appropriate.

**Find, Solve, Calculate** - While working may be necessary to answer the question, no justification needs to be given for any results found.



Should this QR code not work, please click [here](#) to view the relevant specification.

**Binomial Expansions**

$$(a + b)^1 = a + b$$

$$(a + b)^2 = a^2 + 2ab + b^2$$

$$(a + b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$$

$$(a + b)^4 = a^4 + 4a^3b + 6a^2b^2 + 4ab^3 + b^4$$

$$(a + b)^5 = a^5 + 5a^4b + 10a^3b^2 + 10a^2b^3 + 5ab^4 + b^5$$

	1						
1	2	1					
1	3	3	1				
1	4	6	4	1			
1	5	10	10	5	1		
1	6	15	20	15	6	1	
1	7	21	35	35	21	7	1

**Right Angle Trigonometry**

SOH:  $\sin \theta = \frac{\text{Opposite}}{\text{Hypotenuse}}$   
 CAH:  $\cos \theta = \frac{\text{Adjacent}}{\text{Hypotenuse}}$   
 TOA:  $\tan \theta = \frac{\text{Opposite}}{\text{Adjacent}}$

**Slope** =  $\frac{dy}{dx}$

**Area** =  $\int y dx$

