

**Year 11 - 12 Maths Transition  
Work  
2022**

## Welcome to Maths

This pack contains information regarding the course structure, equipment/ reading and website lists and transition work to prepare you to start your Year 12 course in September.



# Course Structure

What do I need to do in A Level Mathematics?

**Year 12** is made up of 14 Units of Pure making up 2/3 of the Edexcel course namely:

1. Algebraic expressions
2. Quadratics
3. Equations and inequalities
4. Graphs and transformations
5. Straight line graphs
6. Circles
7. Algebraic methods
8. The binomial expansion
9. Trigonometric ratios
10. Trigonometric identities and equations
11. Vectors
12. Differentiation
13. Integration
14. Exponentials and logarithms

It also has 11 units of Statistics and Mechanics making up 1/3 of the course, unit 1-7 is statistics and unit 8-11 is mechanics. The units are:

1. Data collection
2. Measures of location and spread
3. Representations of data
4. Correlation
5. Probability
6. Statistical distributions
7. Hypothesis testing
8. Modelling in mechanics

9. Constant acceleration
10. Forces and motion
11. Variable acceleration

**Year 13** is made up of 12 Units of Pure making up 2/3 of the Edexcel course namely:

1. Algebraic methods
2. Functions and graphs
3. Sequences and series
4. Binomial expansion
5. Radians
6. Trigonometric functions
7. Trigonometry and modelling
8. Parametric equations
9. Differentiation
10. Numerical methods
11. Integration
12. Vectors

It also has 8 units of Statistics and Mechanics making up 1/3 of the course, unit 1-3 is statistics and unit 4-8 is mechanics. The units are:

1. Regression, correlation and hypothesis testing
2. Conditional probability
3. The normal distribution
4. Moments
5. Forces and friction
6. Projectiles
7. Application of forces
8. Further kinematics

At the end of year 13 there are 3 exam papers to sit that are a hundred marks each. These are made up of 2 pure papers and 1 mechanics and statistics paper.

# Equipment List

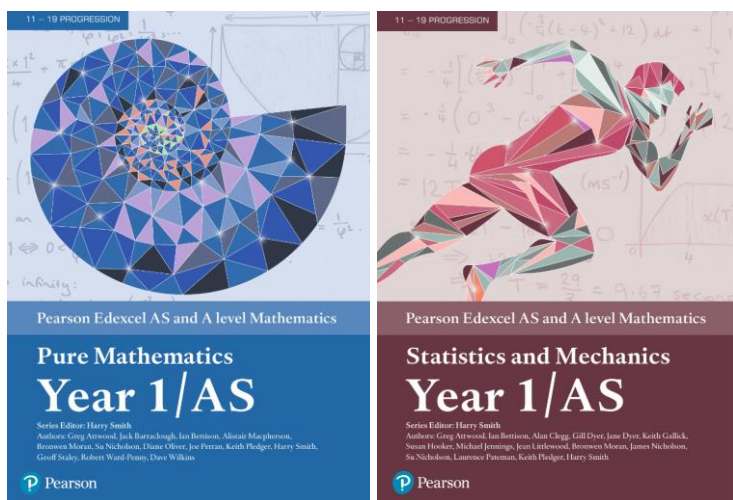
Please find below a list of materials for A Level Mathematics

## Equipment required for course

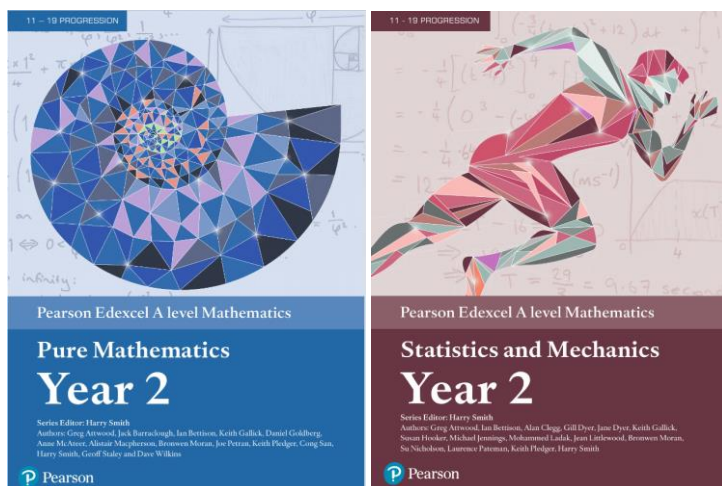
- Casio FX-991EX 10-Digit Scientific Calculator
- Geometry kit

## Books

### Year 12



### Year 13



## **Websites**

<https://www.pearsonactivelearn.com/app/library>

<https://www.mathsgenie.co.uk/newalevel.html>

## **Video links**

<https://www.mathsgenie.co.uk/newalevel.html>

## **Transition Work**

Over the holidays you will complete the booklet and check your answers and bring it with when you start in September. We will then go over any queries that you have before starting the syllabus. The booklet is attached separately as a pdf file.