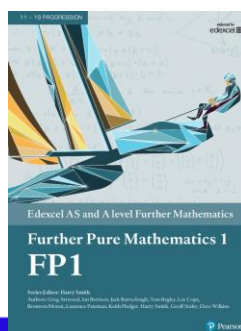# Year 13 Further Maths

LEARNING JOURNEY

FHS

Revision

Exams

Revision/review

Revision/review

Elastic Collisions in 2 Dimensions (FM1)

Further Mechanics 1 FM1

Numerical Methods (FP1)

Further Pure Mathematics 1 FP1
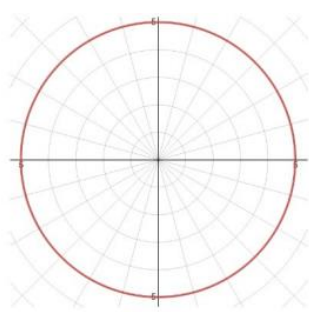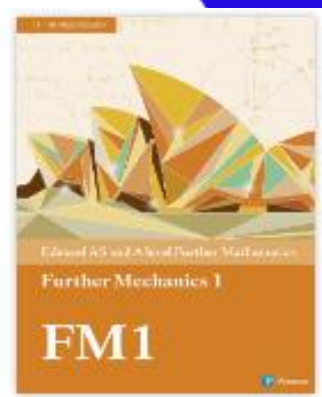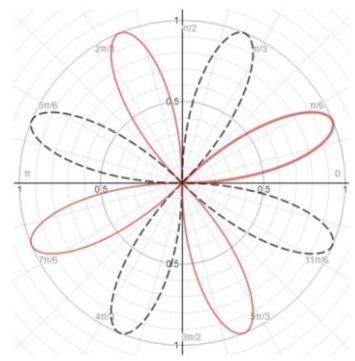
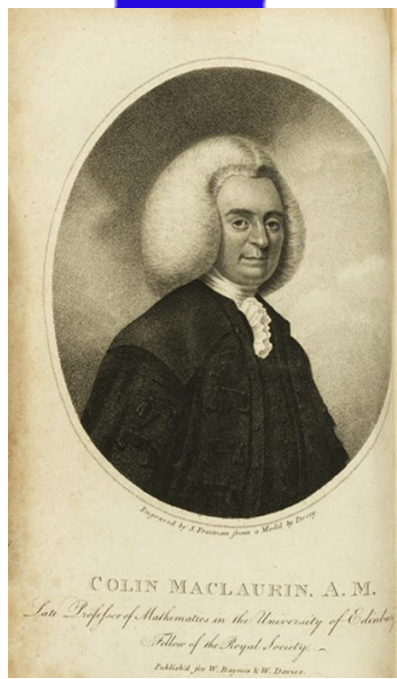**Methods in Calculus (FP1)**

Inequalities (FP1)

Momentum as a vector (FM1)

Conic Sections (FP1)

Taylor series (FP1)

Elastic strings and springs (FM1)

Volumes of revolutio

COLIN MACLAURIN, A. M.

$$\theta = \frac{\pi}{2}$$
$$a$$
$$\theta = \pi \qquad \theta = 0$$
$$2a$$
$$a$$

Core Pure Mathematics Book 2

Hyperbolic Functions
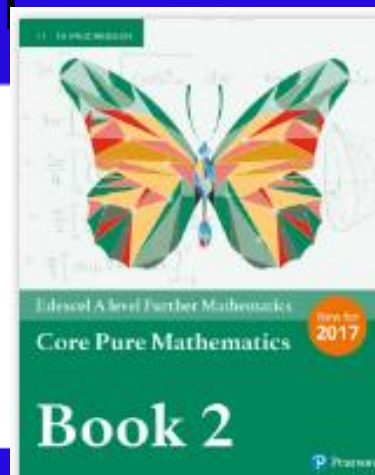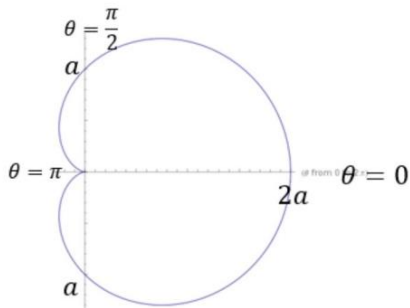
Modelling with differential equations

Methods in Differential Equations

Polar Coordinates

Methods in calculus

Complex number

Series

YEAR 13

Year 13 Further Maths learning summary:

During the Further Maths course we will:
- understand mathematics and mathematical processes in a way that promotes our confidence, fosters enjoyment and provides a strong foundation for progress to further study.
- extend our range of mathematical skills and techniques over and above the A-Level Maths syllabus, giving us a deep insight into the processes used in mathematics.
- approach very complex multi-step problems with tenacity, producing solutions which require manipulating very complex algebra over many steps
- understand coherence and progression in mathematics and how different areas of mathematics are connected
- apply mathematics in other fields of study and be aware of the relevance of mathematics to the world of work and to situations in society in general
- use our mathematical knowledge to make logical and reasoned decisions in solving problems both within pure mathematics and in a variety of contexts, and communicate the mathematical rationale for these decisions clearly
- reason logically and recognise incorrect reasoning
- generalise mathematically
- construct mathematical proofs using a variety of approaches
- use our mathematical skills and techniques to solve challenging problems that require t to decide on the solution strategy
- make deductions and inferences and draw conclusions by using mathematical reasoning