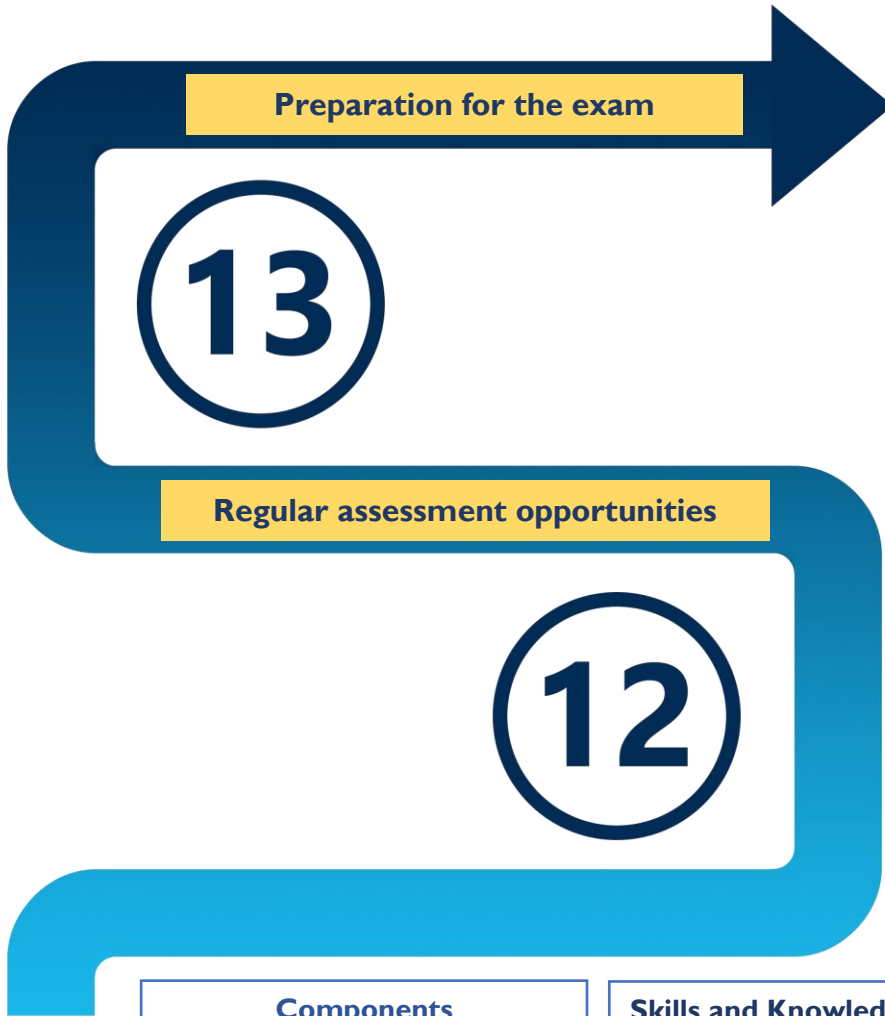


# KS5 Curriculum Journey

## Further Maths

**Next Steps**  
University

**Skill for Life**  
Advanced problem-solving skills  
Ability to deal with abstract concepts



**Components**  
Differential Equations, Maclaurin Series, Further Polar, Calculus and Matrix theory  
Game Theory, Critical Path analysis, Binary Operations  
Centres of Mass, Moments and Couples, Circular Motion

**Components**  
Complex Numbers, Matrices, Advanced series, Roots of polynomials, Polar Geometry, Conic sections, 3D Vectors, Hyperbolic functions, Proof by Induction  
Graph Theory, Linear Programming, Network flows  
Work Energy and Power, Momentum and Collisions

**Skills and Knowledge Building**  
Construct, understand and critique mathematical arguments  
Understand and apply mathematical problem-solving cycle  
Use, interpret and critique mathematical models in a variety of contexts

**Career Ideas**  
Academic Maths / Science  
Engineering  
Computer Scientist  
Actuary

**Builds on**  
Maths and Physics

**Grade Criteria**  
Grade 7 at GCSE Maths (Grade 8 preferred)  
Level 2 Further Maths desirable

