

## SDCC Mathematics Year 12 A-level Further

### Course Information

Students are following the MEI Further Maths AS-level course, consisting of three parts each is examined with its own examination paper

Core Pure	1 hour 15minutes	33.3%
Mechanics a	1 hours 15 minutes	33.3%
Modelling with Algorithms	1 hour 15 minutes	33.3%

Grades available: A, B, C, D, E

AS examinations do not contribute towards an A-level award but will be indicative of likely A-level grade.

A mock exam will take place during the second week of January. Further mocks will take place around Easter.

### Term One - What will we be learning?

Proof	Dimensional analysis
Complex Numbers	Forces
Matrices and transformations	Work, energy and power

### Term Two - What will we be learning?

Vectors	Momentum and impulse
Algebra	Centre of mass
Series	Algorithms
	Networks


### Term Three - What will we be learning?

Further proof	Linear programming
3x3 Matrices	Complete AS course
Further complex numbers	Revision and AS examination

### How will we be learning?

Teaching and learning will focus on problem solving, with use of technology a key requirement. Our aim is that teaching is student led using inquiry and investigation to foster independent learners with a passion for maths. We endeavour to develop the intellectual maturity of our students to enable them to take risks and overcome the challenges that they encounter. Home learning is set weekly to consolidate and extend the learning in class. Students must also consolidate their learning by writing up their notes, completing class work and reading further into a topic.

### Try this at home

- **Textbook** Students will be required to purchase course textbooks. These are available as either hard copies or e-books.
- **Integral:** Make sure you know your username and password to access additional resources, revision aids and practice tests and exam papers.
- Download and use Geogebra APP on smartphones, tablets or laptops
-  **MyMaths:** Many of the topics in year 12 are covered in MyMaths
- **Practise basic skills** regularly. It's important that your algebra skills are solid as is your use of surds and powers.
- **Research** real life applications of topics taught e.g. Who uses Calculus? Hypothesis testing?
- **Visit** [www.examsolutions.net](http://www.examsolutions.net) for videos explaining certain topics