





## The Further Mathematics Support Programme

# Introduction to Mechanics for beginners 2017

A one day beginners' course for teachers who are new to teaching mechanics.

Training and Learning Centre, Portsmouth Academy for Girls, Cowper Road, Portsmouth, PO1 5PF
Wednesday 11<sup>th</sup> October 2017



This course for teachers who have not previously taught mechanics. It will cover the key topics of motion and force which underpin the mechanics content in the new Maths AS/A Level.

### Prior knowledge

Knowledge of GCSE Higher tier content and a working knowledge of AS pure mathematics is desirable, but not essential.

#### Course aims:

- ■To introduce the fundamental concepts of motion and force
- ■To provide a basis of understanding of underpinning ideas for teachers to build upon
- ■To explore and discuss classroom activities including simple practical work







#### Timetable for the day:

09.15	Arrival and registration
09:45	Welcome and introductions
10:00	Motion-time graphs
	Exploring kinematics and understanding and using associated language: position; displacement; distance travelled; velocity; speed; acceleration.
11:30	Break
11.45	Modelling constant acceleration
	Deriving equations associated with constant acceleration and making links
12.30	Lunch
13:15	Vectors and Forces
	Combining vectors
	Types of force, including weight
	Drawing force diagrams
14:30	Break
14.45	Newton's Laws of Motion
	A brief introduction to the three laws of motion
15.45	Modelling in Mechanics
16.00	Depart

Venue: Training and Learning Centre, Portsmouth Academy for Girls, Cowper Road, Portsmouth, PO1 5PF

Please note: to get to Cowper Road you need to go via Shakespeare Road and Manor Road; both one way from St Mary's Road.

#### Course/event fees and application:

Fees for this course/event are £50 for FMSP registered school staff; or it is free if you are also registered with the Solent hub <a href="https://solentmathshub.org.uk/">https://solentmathshub.org.uk/</a>.

Cheques for £50 should be made payable to "Little Heath School" and the delegate's name should be written on the back. Please send these to Dawn Guster, FMSP Bookings & Admin, Little Heath School, Tilehurst, Reading, RG31 5TY. All refreshments will be provided and are included in the course fee. If you have been offered a funded place by the FMSP or are registered with the Solent hub, please indicate that below.

To apply, please complete the online form at: <a href="https://tinyurl.com/mechintroportsmouth">https://tinyurl.com/mechintroportsmouth</a>

#### **Further information**

For more information email: kenchamberlain@furthermaths.org.uk