Costings per delegate: Free

However attendance at all sessions is an expectation along with a commitment from your Headteacher

Venue: Malmesbury School

Physics Teacher Subject Specialism Training

Who is this course for?

The TSST course is aimed at teachers with QTS in the state sector (including secondary and middle schools, FE Colleges, special schools and PRUs) who are already teaching or plan to teach some physics at secondary/FE level. The course is also suitable for those returning to teaching after a career break.

For teachers meeting the criteria, this course is **FREE** through funding provided by the National College for Teaching and Leadership (NCTL) and is run by the Avon Teaching School Alliance at Malmesbury School, Wiltshire. This is an IOP enabled, community approved course.

Programme Objectives

Preparing non-specialists to teach physics confidently to GCSE, the course draws on up-to-date research to improve subject knowledge, pedagogy and practical skills. Outcomes for participants:

- raise the overall quality of teaching and learning in lessons and contribute to schemes of learning
- extend subject knowledge and learn and develop skills with others from schools across the region
- wider teaching opportunities after the TSST programme is complete

Outcomes for Schools:

- opens up greater opportunities for the science department, e.g. to run separate sciences at KS4
- more freedom in timetabling science staff at GCSE
- students will have a better grounding in KS3 physics leading to better outcomes at KS4

How to Apply

For more information and to register your interest for a place on the Physics TSST course that we are running at Malmesbury School, please complete the booking form on the website or email booking@avontsa.com

info@avontsa.com
@AvonTSA
www.avontsa.com
01666 829768

IOP Institute of Physics

Venue: Malmesbury School

Session	Session Title	Date	Time
1	**Day one: Intro to KS3 physics** We will carry out a needs analysis to tailor the course to participants. Abstraction, modelling, perceptions of physics and physicists, maths, scale and scope. Energy, common misconceptions in energy, energy transfer, introducing simple circuits at KS3, modelling simple circuits.	6th Dec 2018	09.00 –16.00
2	**Day 2: KS3 physics** Forces and motion, Scalar and vector quantities, Measuring speed and introducing quantitative reasoning. Newton's first law and free body diagrams. Measuring forces. Waves - light and sound.	23rd Jan 2019	09.00 –16.00
3	**Day 3: Forces at KS4** Linear and non-linear motion, understanding rates of change, understanding errors, forces on moving objects, Newton's laws of motion, momentum and impulse.	27th Feb 2019	09.00 –16.00
4	**Day 4: Electricity and electromagnetism** Static electricity and electric fields, circuits at KS4, series and parallel, Ohm's law, the potential divider, semiconductor devices, resistivity, magnetism, the motor effect, simple electromagnetic devices.	26th Mar 2019	09.00 –16.00
5	**Day 5: Energy transfers, thermal physics and gas laws** Sankey diagrams, the joule, work done, potential energy, gravitational potential and kinetic energy, conduction, convection, radiation and mass transfer - SHC and latent heat, thermodynamics.	25th Apr 2019	09.00 –16.00
6	**Day 6: Waves and radiation** Radiation, half-life, uses of isotopes, nuclear power, fission and fusion, electromagnetic radiation Basic optics - optics diagrams, communications technology	25th June 2019	09.00 –16.00
7	**Day 7: Additional physics** Other topics in physics: Special requests! Astrophysics - earth in space at KS2 to stellar evolution and the age of the universe, introduction to basic electronics, bridging the gap to A level, modern physics.	3rd July 2019	09.00 –16.00

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