

# Space across the Science Curriculum – a hands-on masterclass for science teachers

How to use inspirational contexts from space science to boost student attainment and engagement in the KS3 and KS4 curriculum

Thursday, 24<sup>th</sup> March 2016 9.30am – 3.30pm

Space Studio West London, Middlesex, London, TW13 5DD



## The day includes:

**Keynote lecture** : “Space - so what?": What do we mean by space science? How is it relevant to all of us in our everyday lives? Where does all the money spent on space go – and could space science help save life on Earth?

**Teacher workshops**: These are a range of exciting hands-on masterclasses delivered by some of the UK's leading experts in using space education in the school science curriculum – current teachers with ongoing track records of success in boosting student attainment and engagement.

## Course Outcomes:

Delegates will leave with greater knowledge and understanding of how space science can be related to the science curriculum, and with a range of inspiring, curriculum focused hands-on activities and teaching methodologies that can be immediately implemented in the classroom.\*

*\*97% of teachers agreed or strongly agreed that National Space Academy CPD was useful for their work or practise*

## Concurrent Workshops (delegates choose 3 to attend):

### Physics - Anu Ojha OBE: Director, UK National Space Academy programme

Anu is a former Physics AST, National Lead Practitioner (Physics) for the SSAT and is leading international education and skills development programmes at school and undergraduate level for the UK space sector, including collaboration with ESA (the European Space Agency) and China.

### Biology - Caroline Molyneux: Assistant Headteacher, Sharples School

Formerly a postgraduate researcher in Molecular Microbiology, Caroline has led training sessions across the UK and in 2010 was winner of the Royal Society's Hauksbee award for STEM Education.

### Chemistry - Steve Althorpe: Robert Smyth Academy

Steve has over 20 years' teaching experience. He has led the development of international chemistry teaching methodologies focused on ESA's Rosetta mission and other space chemistry themes and in 2009 was invited to present at NASA's largest education conference at the Johnson Space Centre, Texas

### Astronomy - Andy McMurray: Head of Teaching and Learning, National Space Academy

Formerly an Assistant Principal with 25 years experience of teaching physics, Andy is currently also an A level physics lecturer for Loughborough College's Space Engineering course. He co-led the development of educational experiments conducted on the International Space Station by ESA astronauts Samantha Cristoforetti (Italy) and Tim Peake (UK) and is supporting the UK education programme for NASA's InSight mission to Mars, scheduled for launch in 2018.

## National Space Academy - [www.nationalspaceacademy.org](http://www.nationalspaceacademy.org)

Led by the National Space Centre and supported by the UK Space Agency, Science and Technology Facilities Council (STFC) and various UK space/aerospace companies, the National Space Academy uses inspirational contexts from space science to boost student attainment at high school level, develop greater teacher effectiveness and highlight career pathways in the UK space and wider science and engineering sectors. Its 30+ strong team is located across the UK and includes some of the country's best current science teachers who work with space science researchers to deliver its programmes. Each year, nearly 7000 students and over 1000 teachers participate in its intensive masterclass sessions. The Academy established the UK's first full-time course for A level students in Space Engineering (now being delivered at multiple locations across England), was instrumental in the development of the UK's first schools with space contexts embedded throughout the curriculum (Space Studio Schools) and co-led the development of the National Higher Apprenticeship Programme for the Space Sector.



*“Inspiring, absolutely excellent ideas, resources and delivery”*

The National Space Academy has extensive experience in developing classroom methodologies linking science to the curriculum through projects including:

- Rosetta - UK programme on behalf of the Science and Technology Facilities Council (STFC) and international work for ESA
- Astro Academy: Principia – physics education experiments to be carried out by Tim Peake on the International Space Station (ISS), commissioned by the UK Space Agency
- James Webb Space Telescope - UK programme on behalf of ESERO-UK (the UK's European Space Education Resource Office)
- Gaia space telescope - European Space Agency (ESA) education programme
- International science demonstrations conducted on the ISS – commissioned by ESA
- NASA InSight – Martian seismology project with the British Geological Survey

Cost: **£45.00+VAT** per teacher  
(lunch and refreshments included)

To book your place please contact us

Email: [nsa@spacecentre.co.uk](mailto:nsa@spacecentre.co.uk)

Telephone: 0116 258 2147

*“A very enjoyable, highly useful presentation which will have a positive practical impact on my teaching”*



**Space Studio West London**  
an Aspirations Academy