

History  
Languages  
Maths  
Science



**Subject  
Enrichment  
Residential**

Autumn 2021, Crewe Hall



[www.ptieducation.org](http://www.ptieducation.org)





# Welcome

## Subject Enrichment Residential 2021

We are delighted to welcome you to the PTI Subject Enrichment Residential. Over the next three days, you'll engage with talks and presentations from a wide range of high-profile subject experts. There will also be time to explore subject leadership approaches and enrich your knowledge through workshops, panels, tours and taster sessions. This is a unique opportunity for you to step away from the classroom, to share best practice and to network with inspiring subject leaders from across the country. This weekend, we hope that you will:



**Discover new specialist subject knowledge**



**Develop new ways to extend, enthuse and inspire students and strengthen your curriculum**



**Consider more dynamic and creative practices to revitalise your department**

## About the PTI Residentials

Every year since 2002, these courses have provided an opportunity for teachers to stand back and reflect on the nature of their subjects, on what is most important in the teaching of them, and how they can improve their teaching so as to inspire the next generation of children. Teachers themselves tell us that such opportunities are rare in their professional lives.

This weekend's programme includes a number of sessions by speakers eminent in their various fields to enable you to discuss subject issues in depth with academics and experts.

In the workshop sessions our aim is to offer you a chance to discuss your work with colleagues and to explore some of the more difficult aspects of subject delivery: what parts of our subject should we be teaching and why, and what are the best ways of doing so? To ensure that these discussions do not remain just at the theoretical level, but lead to effective action in the classroom, this residential acts as an introduction to the PTI Subject Leadership Programme which is designed to help you focus your departmental planning on inspiration and enrichment.

The most powerful effect of the PTI courses to date has been that teachers have gone back to their schools feeling it is within their power to change their classroom approach; to put scholarship and a delight in their subjects at the heart of their teaching. For example, one teacher writes, *"This course has given me back my belief in myself and reawakened my passion for my subject. It has also taught me that I am empowered and that I can."*

We have designed a course that we are sure you will find both stimulating and challenging, and we hope you will return to your classrooms inspired to share your experiences with your pupils and your colleagues.

**2021 • HISTORY • LANGUAGES • MATHS • SCIENCE •**





# History



## An overview of the History Enrichment Residential 2021

History teaching has never been more contentious, important nor exciting than now. In order to seize this moment and make our syllabuses even more relevant we have gathered a range of leading academics to stimulate, engage and challenge our notions of what we teach and how we teach it.

Whether it is re-evaluating British history, our relationship with Europe or the issues of race, empire, migration and disproportionate economic power, this Residential has the ambition to give you the ideas, tools and enthusiasm to re-invent your courses and re-invigorate your teaching. Share your enthusiasm, discover new angles and empower yourself to make the difference for all our students.

### Objectives of the course

- » To explore ways to make a broad and deep study of History engaging, rewarding and inspiring for all young people, whatever their ability.
- » To help create a better understanding of Britain's place in the History of the World.
- » To exchange ideas about what kinds of teaching are most likely to develop in pupils a capacity for independent critical thinking combined with intellectual rigour.
- » To find ways to help pupils develop a sense of the big picture in history, while retaining the rigour of history in depth.
- » To help students reflect on what they are taught, what constitutes "truth" or "truths", and how they learn History.



### PTI History Residential participant

*Hearing others enthuse and talk with pride about their subject has made it easy to remember and focus on the importance of my subject and its ability to change lives.*

## Speakers

### KEYNOTE



#### MICHAEL OHAJURU | *The John Blanke Project - imagine the Black Tudor trumpeter*

Michael Ohajuru is Senior Fellow of the Institute of Commonwealth Studies. He blogs, writes and speaks regularly on the Black presence in Renaissance Europe and has been featured in TV programs on BBC, ITV and Channel 5. He is founder of *Image of the Black in London Galleries* and founder member of the Black Presence in British Portraiture network.



#### PROFESSOR DAVID ABULAFIA FBA

##### Talk: *The Boundless Sea: A Human History of the Oceans*

David Abulafia is Emeritus Professor of Mediterranean History at Cambridge, and a Fellow of Gonville, Caius College and the British Academy. His books include *The Boundless Sea: a Human History of the Oceans*, which won the Wolfson History Prize for 2020, and *The Great Sea: a Human History of the Mediterranean* which won the British Academy Medal.



#### GRAHAM DODD

##### Talk: *The history of Crewe Hall*

Graham Dodd is Vice-chairman of Nantwich Historical Society. He gained a PhD at the University of Reading with a thesis concerned with the integrated control of cabbage aphids. He has worked as a consultant providing commercial and technical support to the non-agricultural pest control industry.



#### DR ALTHEA LEGAL-MILLER

##### Talk: *Black Freedom and People Power in late 1960s America*

Althea Legal-Miller is a Senior Lecturer in American History and Culture at Canterbury Christ Church University. She is a contributor to the edited collection *Reclaiming the Great World House: The Global Vision of Martin Luther King Jr* (University of Georgia Press, 2019) and the forthcoming ninth volume of *Developments in American Politics* (Palgrave).



#### DR JOHN MCALEER

##### Talk: *The East India Company: The corporation that changed the world*

John McAleer is Associate Professor of History at the University of Southampton. He was previously Curator of Imperial and Maritime History at the National Maritime Museum. His monographs include *Monsoon Traders: The Maritime World of the East India Company* (2011), and *Picturing India: People, Places and the World of the East India Company* (2017).



#### MARTIN SPAFFORD

##### Talk: *Peopling the silences - 'small' stories opening up big histories in the classroom*

Martin Spafford, after retiring from secondary school history teaching, helped OCR develop its GCSE migration units, for which he co-wrote textbooks. He has worked with the Runnymede Trust on their Our Migration Story website and helped advise the Migration Museum on their 'No Turning Back' and 'Departures' exhibitions.

# Languages



## An overview of the Languages Enrichment Residential 2021

How can we lead languages into the future? How do we point the way forward for MFL in schools? How do Languages teachers inspire the next generation of linguists? Together, we will explore how our passion for languages, our subject knowledge and our experience can be used to enliven our teaching, enrich our curriculum and inspire students to become the successful, confident and adventurous linguists of the future.

### Objectives of the course

- » To explore why we teach Modern Languages, what language learning contributes to education in a wider sense and why it should be part of core study for young people.
- » To identify what is important and what is relevant in the teaching of Modern Languages, to ask what languages we should teach, and what literature should be taught to allow students to better explore and understand different cultures.
- » To exchange ideas about how we can best teach Modern Languages and which teaching and learning strategies inspire, excite and are most effective.
- » To gain, as well as contribute to, real-life ideas of examples and activities of best practice.



### PTI Languages Residential participant

*It has opened me up to new ideas and ways of thinking and given me the time and space to consider what I truly believe is the right approach for our students. It has been enormously thought provoking and inspiring.*



## Speakers

### KEYNOTE



#### BISHOP NICK BAINES | *Language matters*

The Rt Revd Nick Baines is the Bishop of Leeds, and was previously the Bishop of Bradford and the Bishop of Croydon. He read German and French at Bradford University and, before ordination, worked for four years as a Russian linguist at GCHQ. Nick has 16.5 thousand followers on Twitter and his blog has been viewed more than 2 million times. He has been a member of the House of Lords since 2014.

#### IAN BAUCKHAM CBE

**Talk: *Evidence informed language teaching: building competence and confidence for success***



Ian Bauckham has worked in education since graduating from Cambridge University. He now leads a trust of 8 schools including a free school. He chaired a review of Modern Languages in 2016, is interim chair of Ofqual, and a Department for Education advisor. He has been Chair of Oak National Academy since its inception in April 2020.

#### DR AMANDA CRAWLEY JACKSON

**Talk: *Lectures croisées: L'Etranger d'Albert Camus et Meursault, contre-enquête de Kamel Daoud***



Amanda Crawley Jackson is Associate Dean for Knowledge Exchange at the University of the Arts London, London College of Communication. Her research focuses on place in contemporary literature and art from France and the French-speaking world. Her curatorial projects include *Invisible Wounds* (2020) at the Graves Gallery in Sheffield.

#### DR STUART GREEN

**Talk: *Are You X-perienced? La música y la inmigración en España***



Stuart Green is Senior Lecturer in Spanish at the University of Leeds. His research explores various aspects of popular culture of the twentieth and twenty-first centuries in Spain, such as the dialogues between screen and stage in the 1930s and 1940s, theatre posters and branding, and questions of race and discrimination in the performing arts.

#### DR MARTIN A. RUEHL

**Talk: *The awful German language***



Martin Ruehl is Senior Lecturer in German Intellectual History at the University of Cambridge. His research concentrates on the ideas and ideologies that shaped German society and culture in the period between Bismarck and Hitler. In 2017, he was awarded the Pilkington Prize for Teaching Excellence.

#### JAMES STUBBS

**Talk: *Grammar in the target language***



Over 25 years, James Stubbs has taught Spanish, French and English as a Foreign Language in the UK and Spain and, for the whole of this time, through the medium of the target language. Following two years in a Prep School as Head of French, he now serves as Head of MFL in its associated Senior School, teaching Years 7-13.



# Maths



## An overview of the Maths Enrichment Residential 2021

Welcome to the PTI Mathematics Enrichment Residential. We have designed this course as a chance to go back to our subject and explore why we loved Mathematics so much we wanted to teach it. This will be a chance to bring the latest ideas to your school; from looking at the Mathematics of Trafalgar, statistics in the media, and applications in industry and knitting. We hope there will be something for everyone.

The residential is also a chance to work with gifted and inspirational teachers who are determined that all their pupils should enjoy the riches of Mathematics. At the end of the course you will have developed a clear structure on how to take the ideas and principles discussed back into your school setting to share with colleagues and pupils.

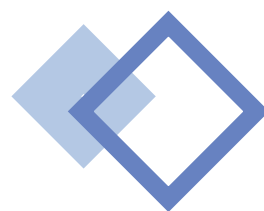
### Objectives of the course

- » To promote self-confidence in teachers to present curriculum ideas in a more flexible, creative and mathematically rigorous way.
- » To share and refine ideas for challenging, exciting and sustainable developments in the Mathematics programme at school.
- » To consider how we make the most of pupils arriving from Key Stage 2 with a better understanding of mathematical concepts.
- » To consider applications of Mathematics, such as engineering and the use of data, and to look at the links between Mathematics and other subjects, for example Science, History and Geography.
- » To promote greater challenge for both teachers and students in the classroom and give students a better understanding of mathematical reasoning.



### PTI Maths Residential participant

*It has made me feel invigorated and excited about teaching again. My head is full of amazing ideas which I can not wait to try out in our school to encourage students to think about a career in Maths.*



## Speakers

### KEYNOTE

#### DR VICKY NEALE | Scarves, symmetry, and solving equations

Vicky is the Whitehead Lecturer at the Mathematical Institute, University of Oxford and a Supernumerary Fellow at Balliol College. Her most recent book is *Why Study Mathematics?*, for students considering a maths degree and their teachers and families. Vicky has experience of giving talks and leading workshops for a wide range of audiences, and has appeared on several BBC Radio 4 and TV programmes.



#### DR NIRA CHAMBERLAIN

**Talk: *What is the point of mathematics? An industrial mathematician's point of view on why maths matters!***

For 30 years, Nira Chamberlain has worked all over Europe solving complex industrial problems through mathematical modelling. He has been recognised as the World's Most Interesting Mathematician and The FT Top 100 Most Influential BAME leaders in UK Tech.



#### HEATHER DAVIS

**Talk: *Building on learning from primary school***

Heather Davis was a Maths teacher for 30 years. She worked as a Local Authority Advisor and now is an independent consultant. Heather is Chair of trustees of The Association of Teachers of Mathematics.



#### ROB EASTAWAY

**Talk: *Putting the mystery back into maths***

Rob Eastaway has written numerous books on the maths of everyday life, including *Maths On the Back of an Envelope*. He is the Director of Maths Inspiration, a national programme of interactive lecture shows that has reached over 150,000 teenagers.



#### CHARLIE GILDERDALE

**Talk: *Teaching secondary mathematics using NRICH resources***

Charlie Gilderdale is the NRICH Secondary Coordinator. He contributes to the NRICH website, developing classroom content which offers opportunities for learning mathematics through exploration and discussion.



#### DR EMILY GROSSMAN

**Talk: *Lies, damned lies and newspapers***

Emily Grossman is an internationally acclaimed science writer, public speaker and TV personality. She has a Double First in Natural Sciences from Queens' College Cambridge, a PhD in cancer research and has worked as a Maths and Science teacher.



#### PETER RANSOM MBE

**Talk: *Yo Ho Ho-ratio: Some mathematics of Trafalgar***

Peter Ransom is past President and Chair of Council of The Mathematical Association and a freelance Mathematics educator. He is a Fellow of the Institute of Mathematics and its Applications and also belongs to the British Society for the History of Mathematics.

# Science



## An overview of the Science Enrichment Residential 2021

Science is everywhere. Never has this been more obvious than in recent times with coverage of 'big science' across society, not limited to but most notably in the form of the pandemic and climate change. As teachers, we need to ensure that our own knowledge continues to develop so that we can answer questions about current scientific developments and achievements and help students intelligently interact with science.

The residential aims to inspire and enthuse by immersing you in a series of talks from academics, expert panels and teacher led workshop discussions. These activities not only focus on cutting edge science but also the wider role of science, allowing you the opportunity to take practical, real ideas back to your own schools.

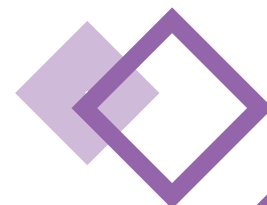
## Objectives of the course

- » To explore how to best promote exceptional and exciting teaching that inspires and creates a passion about science in all students both inside and outside of the classroom.
- » To ensure that colleagues have access to cutting edge research and developments in science so that they themselves continue to have opportunities to learn and then, through teaching about these innovations, further engage their students in the rapidly evolving scientific world.
- » To foster opportunities for deeper discussion about the importance of science in the wider world, how science will play a vital role in tackling some of the world's greatest problems and how science will directly impact on the lives of our students including potential career choices.
- » To highlight the links and impact that science has had and will continue to have in all areas including beyond STEM such as literature, religion, history, music and art.
- » To further explore how to engage, inspire and support students to develop their intellectual understanding, curiosity and problem solving through science.



## PTI Science Residential attendee

*Networking and talking with others in similar roles as mine has been reassuring and thought provoking, the ideas produced in the space of 48 hours is phenomenal.*



## Speakers

### KEYNOTE

#### PROFESSOR ANU OJHA OBE

Anu Ojha is Director of the UK's National Space Academy programme, a Director of the National Space Centre and in 2018 was appointed to STFC Council. He is also a member of ESA's Human Spaceflight and Exploration Science Advisory Committee (HESAC) and in 2019 was invited by the UAE Space Agency to join the Advisory Board of the Global Space Congress. A former Advanced Skills Teacher and Assistant Headteacher, he still teaches A level physics as part of the NSA's Space Engineering course.



#### DR SAZ AHMED

**Talk: *The development of the adolescent brain***

Saz Ahmed is a postdoctoral Research Fellow in Professor Sarah-Jayne Blakemore's lab based at the UCL Institute of Cognitive Neuroscience and the University of Cambridge, researching adolescent social cognitive development.



#### PROFESSOR ANDREW GREGORY

Andrew Gregory is Professor of History and Philosophy of Science in the Department of Science and Technology Studies at University College London. His main research interest is science from the ancient world to around the seventeenth century, focussing on astronomy, cosmology and idea of the origins of the universe.



#### DR EMILY GROSSMAN

**Talk: *Lies, damned lies and newspapers***

Emily Grossman is an internationally acclaimed science writer, public speaker and TV personality. She has a Double First in Natural Sciences from Queens' College Cambridge, a PhD in cancer research and has worked as a Maths and Science teacher.



#### DR SUJAI KUMAR

**Talk: *Sequence everything: How collecting the DNA code of every species will change biology and save the world!***

Sujai Kumar is a genome informatician working on the Darwin Tree of Life project which will map the complete genome of every eukaryotic species found in Britain and Ireland. Sujai builds systems for managing and understanding the astronomical amounts of data being generated for sequencing more than 70,000 species.



#### DR ROBERT MULVANEY OBE

**Talk: *Frozen in time: climate and atmosphere through the millennia***

Robert Mulvaney is the Science Leader of the Ice Dynamics and Palaeoclimate team at British Antarctic Survey. He leads a group of around 30 scientists and postgraduate students seeking to understand how the climate and atmosphere has evolved over many thousands of year, and how the polar ice sheets will respond to future changing climate.





# The Subject Leadership Programme

This Residential acts as an induction onto the PTI Subject Leadership Programme. The Programme is an ongoing, high-quality professional development pathway which offers guidance, celebration of your achievements and annual recognition of your department's work through the award of the PTI Mark.



## You will be encouraged to reflect on your current provision and then develop subject-focused objectives across four areas:

- \* Promoting coherence and quality of challenge within the curriculum
- \* Extending and enthusing pupils through subject-based activities that go beyond the curriculum
- \* Encouraging teachers to develop, explore and share their own specialist subject knowledge
- \* Raising the profile of your subject in school and beyond



Joining the PTI Subject Leadership Programme was one of the best professional decisions I've ever made; it's opened up so many opportunities for me, my department and our students. From fascinating lectures to networking and sharing brilliant lesson ideas and resources, the Subject Leadership Programme is the best CPD available and I've been so lucky to have been involved in its development over the years. As Coordinator, my aim is to deliver outstanding subject-based professional development and to make use of our fantastic network of teachers to share their experience, expertise and enthusiasm.

### JACQUELINE PIERCE

Subject Leadership Programme Coordinator

Year-round support is available from our programmes team. Please contact [nicola.bentley@ptieducation.org](mailto:nicola.bentley@ptieducation.org) or call 020 3174 0127.

Programme **membership is free** for the first year (or included in PTI Unlimited membership!)

## Benefits of being a PTI Programme Member



### A FREE PLACE AT OUR ANNUAL SUBJECT LEADERSHIP DAY

*Join us in July 2022 for a reunion day with colleagues from this course*

Listen to high-quality speakers, share expert practice and discuss rich subject provision within and beyond the classroom. Reconnect with those on this course and meet inspiring teachers from all across the country to share your achievements for the year.



### EARN THE AWARD OF THE PTI MARK

*Gain recognition for excellent subject teaching within your department*

At the Subject Leadership Day, you'll be awarded the PTI Mark once you demonstrate progress in your objectives which you will begin to define during this Residential. During your journey, you'll get academic support proven to help deliver exceptional subject leadership.



### A WEALTH OF SUBJECT-SPECIFIC CPD AND RESOURCES

*Your membership includes free access to online courses and much more*

As a member, you can log in to the PTI Staffroom which contains over 5,000 resources. This includes recorded lectures, presentations and lesson ideas. You can also book onto our subject-focused CPD Online Courses, which take place throughout the year, for free.

## After the Residential - what's next?

### Before the end of November

Confirm your objectives with your department and your SLT.

### November 2021 to May 2022

1. Work on your objectives and strengthen your department.
2. Upload a unique teaching resource onto the PTI's online Staffroom, to add to our collection of thousands of resources available exclusively to our members.

### July 2022

Attend the Subject Leadership Programme Day, where the cohort from this residential will join the rest of our members for a day of inspiring subject-knowledge enhancement, networking and sharing experiences with like-minded colleagues. You will set objectives for the following year to build on your achievements, and those who have made progress will be awarded the PTI Mark.

### September 2022

Formal award of the PTI Mark. Certificate sent to you in the post.

### November 2022

PTI banner sent to your school to recognise departments that have achieved the Mark.

## PTI Unlimited

Schools can join PTI Unlimited, our most comprehensive membership option, and get full and free access to all of our CPD courses, events, programmes and resources for leadership, subject departments and teachers. Some of the benefits are listed below:

- ✓ Places on one-day subject-focused CPD and online courses for teachers at all levels
- ✓ Places for subject leaders on three-day Subject Enrichment Residential
- ✓ Places for early career teachers on a four-day Saturday development course
- ✓ A place for headteachers on a two-day School Leadership Residential
- ✓ Places on an 18-month accreditation course for aspiring and established subject leaders

### Subjects

We currently run courses in the following subjects:

Art, English, Geography, History, Maths, Music, MFL, Science and Leadership.

We are also excited to announce new courses in D&T and PE this year!

### Contact us

If your school would like to find out more about PTI Unlimited, they can contact Heidi Mitchell by emailing [heidi.mitchell@ptieducation.org](mailto:heidi.mitchell@ptieducation.org) or calling 020 3174 3106.

PTI Unlimited price per  
school per annum just

**£3500**  
+VAT

## What's coming up at the PTI

### CPD FOR TEACHERS AT ALL LEVELS

**CPD Subject Days** | Autumn, Spring and Summer Term

**CPD Online Courses** | Autumn, Spring and Summer Term

### CPD FOR NEW TEACHERS

**New Teacher Subject Days** | starting Saturday 20th November 2021

### CPD FOR SUBJECT LEADERS & ASPIRING SUBJECT LEADERS

**Subject Leadership Certificate Level 1** | Autumn, Spring and Summer Term

**Art, English, Geography & Music Subject Enrichment Residential** | Summer 2022

**Subject Leadership Day** | Summer 2022

### CPD FOR LEADERSHIP & ASPIRING SCHOOL LEADERS

**Subject Leadership Certificate Level 2** | Spring and Summer Term

**School Leadership Residential** | Spring 2022

**School Leadership CPD** | Autumn, Spring and Summer Term

### CPD FOR PRIMARY

**Primary Leadership Residential** | Spring 2022

**Primary Hubs** | Autumn, Spring and Summer Term

**Virtual Primary Hubs** | Autumn, Spring and Summer Term





Inspirational professional development  
*for teachers and school leaders*

INSPIRING TEACHERS  
CHANGING LIVES



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