

primary (stem) LEARNING

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Making time for design and technology

How a vacuum cleaner changed our primary specialist's ideas about design, technology and engineering.



Welcome

Get in touch...

We would welcome your feedback on our new magazine: feedback@stem.org.uk



Welcome to the second edition of STEM Learning magazine.

This year we are celebrating ten years of providing high-quality, high-impact professional development for teachers and support staff in the UK through the National Science Learning Centre. The Centre was opened on 17 March 2006 by the then Prime Minister, Tony Blair.

Across our network we have been supporting teachers and technicians for over 10 years and during that time we have learnt some key lessons:

1. Sustained engagement of schools and colleges with Network support is associated with improved teaching and learning, and increased uptake and achievement in STEM.
2. Professional development from the Network improves teachers' subject and pedagogical knowledge, skills and confidence, resulting in better outcomes for young people.
3. The Network develops strong leadership in STEM – from primary to post-16 – benefitting teachers, schools and young people.
4. Engagement with the Network helps schools and colleges recruit and retain excellent teachers.
5. Professional development from the Network enriches teaching, supporting young people's engagement, progression and awareness of STEM careers.

Full details of these lessons can be found in our Impact Summary: www.stem.org.uk/impact-10-years

We are starting the next ten years with some big changes designed to meet the changing needs of educators. We have changed our online presence taking the National STEM Centre, National Science Learning Network and ESERO websites and combining them so that all our support can be accessed in one place – www.stem.org.uk. We would be interested in your feedback and thoughts on how to improve this in the future.

We have also changed the name of our Centre in York to the National STEM Learning Centre to reflect the support we offer across computing, design and technology, mathematics and science.

As ever, this magazine is full of ideas, interviews and opportunities for bursary supported professional development – we hope you find it useful and look forward to welcoming you on to one of our activities soon.

Yvonne Baker

YVONNE BAKER, CHIEF EXECUTIVE, STEM LEARNING LTD

VISIT US:



www.stem.org.uk

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@NtlSTEMCentre
@ScienceVoice

LIKE US ON FACEBOOK:



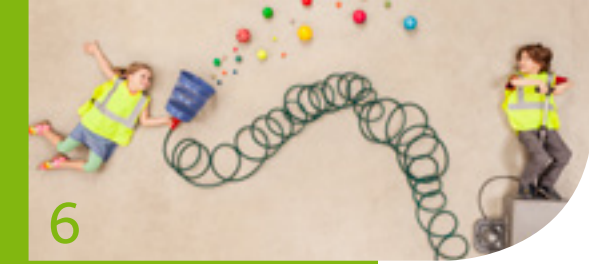
/NationalSTEMCentre
/NationalScienceLearningCentre

The National Science Learning Network is a joint initiative by the Department for Education and the Wellcome Trust.

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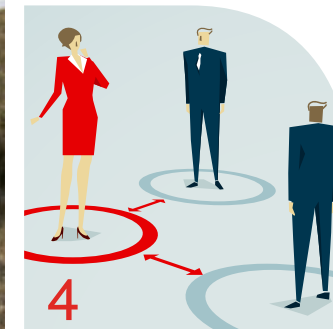
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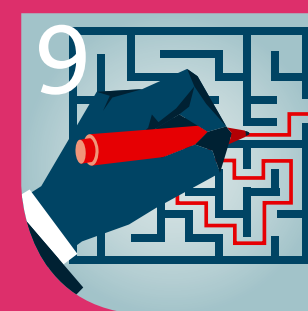
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Stronger together

by **Alison Capstick** Head of Teaching and Learning, The White Horse Federation
@WhiteHorseFed

Can you tell us a little about your primary network and what's involved?

Our network is designed to encourage all our primary schools to adopt a collaborative approach to CPD for science teachers. It was with this end goal in mind that we set up our primary network: to explore current assessment and tracking methods, and to share experiences and develop moderation methods across the region. In essence, our network aims to host long-term, tailor-made professional development that will feed directly into the needs of individual schools, together with an ongoing support mechanism and network of like-minded co-ordinators.

Was there an 'inspired moment' that led to the set up of the network?

It provided an opportunity to raise the profile of science teaching in all the primary schools in Swindon and to improve the learning experience of our young scientists. That was when we thought we could create something that would highlight specific methods of teaching that would ignite that initial passion for science in young pupils that carries them into secondary school and beyond.

How many teachers are in your network and how do you support each other?

29 teachers from 27 schools attended the first

meeting. Through group work and discussion, teachers were able to identify the key areas they would like to focus on during these sessions. There was also an opportunity for hands on practical experience through a circus of experiments focusing on three areas of the curriculum: materials; adaptations; and light.

Attendees were also invited to attend the annual Primary Science Festival which is being run at the Ridgeway School in March 2016 - another opportunity to bring science to life in a supportive environment!

Why would you recommend joining a local network?

In addition to walking away with new learning styles and realistic lesson plans that can be used in the classroom the next day, this type of activity is a great way of sourcing information and keeping yourself in the loop on a local level.

Both primary and secondary teachers involved in the meeting benefited from seeing the delivery of science teaching from each other's perspectives, highlighting the importance of continuity from KS1 through to GCSE and beyond.

The comments we've received have been overwhelmingly positive. Non-specialists commented on the supportive nature of the

guidance and the openness, willingness to share and enthusiasm of those facilitating, while the inclusion of practical activities was another frequently mentioned aspect.

Local networking is worth a go for knowledge expansion, peer interaction and professional development in a non-intimidating environment, plus it's conveniently on your doorstep!

■ Find out more about the range of support we can tailor to your school or network, with our bespoke offer at: www.stem.org.uk/bespoke

INTENSIVE ENTHUSE £5,000 AVAILABLE

First come, first served £5,000 bursaries available to support in-school, consultant led professional development for state schools in England who have not participated in Project ENTHUSE supported CPD activities in the last five years.

■ Apply now: www.stem.org.uk/mp/intensive-enthuse

Becoming a space ambassador

by **Julie Wiscow** Space Ambassador

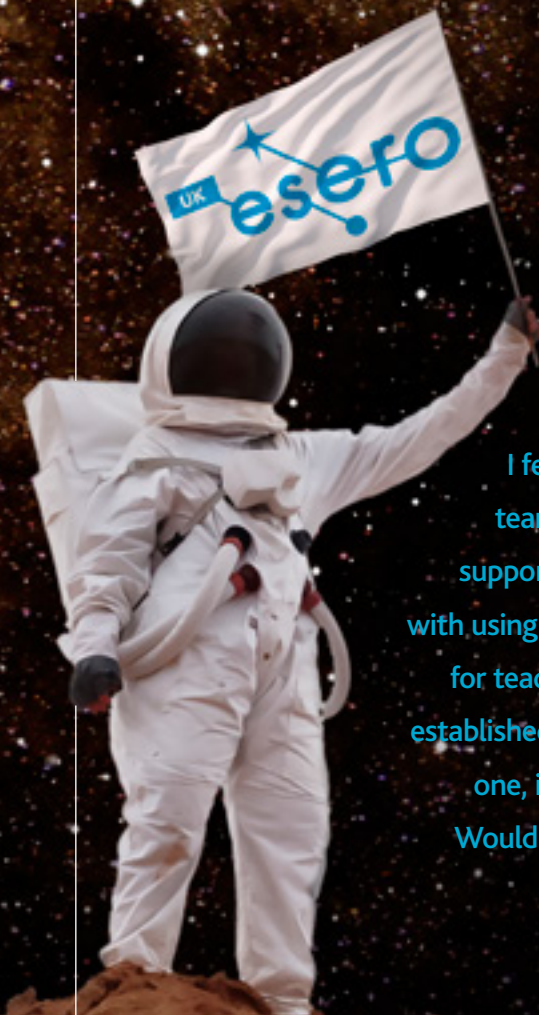
When I first agreed to become a space ambassador for ESERO-UK, I felt quite daunted. The existing team of space ambassadors, who support schools around the country with using space as an engaging context for teaching STEM, seemed very well established and in possession of at least one, if not more, scientific degrees. Would I fit in with this well qualified and established team?

Standing in front of 30 teachers (some of whom had been sent by their head teachers and were wondering what they had let themselves in for) at our professional development event was a great opportunity to share my passion for space as well as my experience of running a successful year long space project with my own school.

The day was packed with plenty to inspire the teachers. We had the Sokol spacesuit on display, there were Astro Pi computers running programmes and a 'Space Case' filled with space-related materials. There were ropes for teachers to climb as part of a challenge from Mission X - a project designed to get children training like astronauts. Wendy Cotterill from the Science and Technology Facilities Council also brought along some lunar rocks with her from their 'Borrow the Moon' loan scheme - schools can borrow lunar rocks for a week.

Tim Peake's Principia mission to the International Space Station is an excellent opportunity for schools to captivate pupils with space and STEM. Engaging with a real astronaut is very motivating and Tim is a great spokesperson for his profession

Tim Peake's Principia mission to the International Space Station is an excellent opportunity for schools to captivate your pupils with space and STEM. Many of the schools I am working with have already taken the plunge and children have been seen carrying homemade solar systems into school and overlaid lunchboxes ready for their trip to various space museums. Engaging with a real astronaut is very motivating and Tim is a great spokesperson for his profession - and I'm very excited to be a space ambassador.



AVAILABLE RESOURCES

GET YOUR STUDENTS TRAINING LIKE ASTRONAUTS WITH MISSION X
■ www.stem.org.uk/mp/mission-x

'BORROW THE MOON' WITH THE SCIENCE AND TECHNOLOGY FACILITIES COUNCIL
■ www.stem.org.uk/mp/timpeake

GET YOUR SCHOOL INVOLVED WITH THE TIM PEAKE PRIMARY PROJECT
■ www.esero.org.uk/timpeake

FIND OUT ABOUT RASPBERRY PIS IN SPACE WITH ASTRO PI
■ www.astro-pi.org

ENRICHING THE PRIMARY CURRICULUM USING SPACE AND ASTRONOMY
■ www.stem.org.uk/ny017

Making time for design and technology

by Rachel Jackson Primary Subject Specialist, STEM Learning Ltd
@JacksonR141



I didn't think that on this particular Monday morning I would be making a vacuum cleaner. In fact, other than the cleaning of my house, I hadn't given them much of a thought, let alone considered them to be something a class of primary school children could make!

So, there we were - experienced teachers - making cardboard blades, investigating the best shape and size for a fan, creating circuits to run motors and discussing how differences in design changed the effectiveness of our creations. Basically, working as a team of top engineers... and enjoying every minute.

As part of our day we thought about our preconceptions of engineering and design and technology. We came up with ideas such as: bridges; cars; machines; tools; trains; and men in overalls. Were our own stereotypes limiting our classroom practise? All these ideas are part of engineering - but it's also so much more: humanitarian engineers help provide shelter and sanitation to refugees and medical engineers design and make the machines that help make us better in hospital. Also, there are some great female role models - Roma Agrawal is one example of an inspiring engineer. She worked on the building of the Shard, utilising skills such as: teamwork, problem solving and creativity.

“ As well as dashing some of our pre-conceived ideas about engineering, we realised the amount of learning children experience through design and technology projects ”

It is important that we move away from stereotypes and offer children the opportunity to experience a variety of focused practical activities in design and technology. They provide links to the world around us around us, increase awareness of engineering at an early age and offer the glimpse of a possible career.

So why not have a go at creating your own vacuum cleaner or hanging sculpture? Or applying knowledge of gears, levers and pulleys to create a mechanical toy? Try building a wind turbine; making musical instruments; designing packaging for a toy; or even building structures from spaghetti and marshmallows!

As well as dashing some of our pre-conceived ideas about engineering, we realised the amount of learning children experience through design and technology projects, whether it is: finding different solutions to problems; applying understanding of science and mathematics; or developing problem-solving skills. Learning is focused around a project, and there are opportunities to make cross-curricular links with writing, computing and art. It may take a little planning to ensure curriculum coverage of all subjects, but think of how much time could be saved in a packed curriculum.

AVAILABLE RESOURCES

PRIMARY ENGINEER COLLECTION

■ www.stem.org.uk/cx3zp

TEACHING ENGINEERING IN THE CLASSROOM

■ www.stem.org.uk/ty005

LEADING AN EFFECTIVE DESIGN AND TECHNOLOGY CURRICULUM

■ www.stem.org.uk/ty011

Building the next generation of great teachers

by **MARGARET SMITH** Independent ITE Consultant

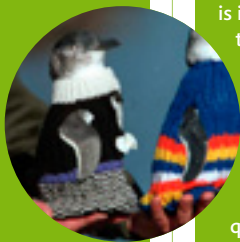
Are you involved in planning training for initial teacher trainees? We look at three of the key issues and how to encourage the next generation of teachers.

WORKING SCIENTIFICALLY

Developing trainees' skills in this area will make sure that there is no decoupling of the development of skills and knowledge. An exposure to the different enquiry types will ensure that a range of skills will be developed with pupils ultimately able to decide for themselves which type of enquiry is needed to answer a question.

JUMPERS FOR PENGUINS!

These jumpers are used when the birds have been exposed to an oil spill absorbing the oil from their feathers and keeping the animals warm in the meantime. Will the jumpers keep the penguin warm? What would be the best material for the jumper?



THE ART OF DIFFERENTIATION

Looking at how to manage questioning and description in the classroom can really help develop expertise in the area of differentiation. Trainees will then find it easier to provide evidence for Teachers' Standard 5.

WHAT'S IN THE MYSTERY BOX?

Pupils work collaboratively using all their senses to describe what is in the mystery box. Targeted teacher questioning supports pupil progress. For example, a low level question might be: what can you hear when you shake the box? A more challenging question would be: how does the sound help you to find out the material it is made from?



FOCUS ON MATERIALS

Whilst working on the area of the curriculum which involves materials and their uses, teachers might ask pupils to use their everyday experience to describe what a material might be used for. Progress would be shown if a pupil could then explain why the properties of that material made it a good choice for that use. Turning this on its head to suggest a poor choice of material is more fun and also requires a firm understanding of the properties of materials.

MATERIAL WORLD

What is a silly use for concrete? Try a concrete pillow- would you get a good night's sleep!



Teaching key areas of primary science KS1 - KS2

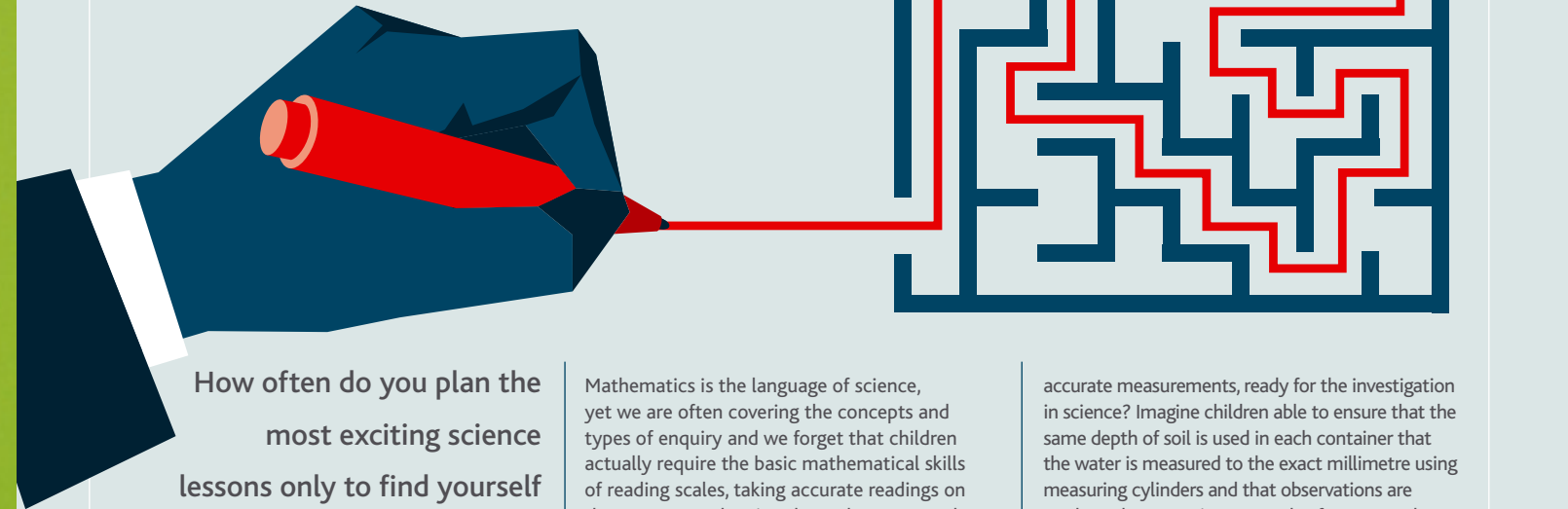
www.stem.org.uk/rp112

Primary science for newly and recently qualified teachers

www.stem.org.uk/ny015

Real-life mathematics and science

by **Rachel Jackson** Primary Subject Specialist, STEM Learning Ltd
@JacksonR141



How often do you plan the most exciting science lessons only to find yourself having to stop the lesson to teach mathematical knowledge and skills so children can access the science? Learning is often lost because of impromptu 'crash courses', designed to fill unforeseen gaps in education.

Mathematics is the language of science, yet we are often covering the concepts and types of enquiry and we forget that children actually require the basic mathematical skills of reading scales, taking accurate readings on thermometers, drawing the scales on a graph or chart and so on.

There are many opportunities for links between mathematics and science, yet often they are undeveloped in schools by teachers under pressure to fit everything in. Yet, surely, these skills are key to learning across mathematics and science, enriching both and providing a more integrated, effective and time efficient way of learning. Linking mathematics and science can provide children with the opportunity to develop skills within real-life contexts, providing them with contextualised hands-on experience that is purposeful and engaging.

One example is provided in the Centre for Industry Education's resource 'Turf Troubles', which explores what makes plants grow well, in the context of the maintaining of a professional football field. This project involves work on the cost of purchasing the raw materials, the weight of each material needed to cover a given surface area and the time taken to grow and treat the turf in order to obtain the perfect pitch. It highlights the mathematical skills required to carry out this project. Children focus on finding the best growing medium to help grow turf for your local stadium, while learning the mathematical skill of measuring accurately using rulers, tape measures and trundle wheels. What could be better than a class with the skills to select appropriate pieces of equipment and to take

accurate measurements, ready for the investigation in science? Imagine children able to ensure that the same depth of soil is used in each container that the water is measured to the exact millimetre using measuring cylinders and that observations are made at the same time every day for two weeks.

Time for science is limited, so it is useful to identify and teach the mathematical skills, so children are ready and able to access the science. Why not learn how to use a thermometer in a mathematics lesson while exploring which materials keep hot drinks hot? Or develop measuring skills while finding out whether people with the longest legs can jump the furthest? When learning how to present data in bars and charts in mathematics why not use the data from your science lesson? No matter how you decide to teach mathematics skills for science, it is impossible to ignore the fundamental relationship between these subjects.

Turf Troubles

www.stem.org.uk/rx7gp

Linking the core subjects: mathematics and science

www.stem.org.uk/rp113

Primary mathematics conference – summer 2016

Check the website for update information
www.stem.org.uk/my007



Exploring the teaching community

by **Ben Wolfson** Year 3 Class Teacher, Gildersome Primary School, Leeds

When someone asks what I do, I give the simple reply of 'teacher'. However, it's a job that varies massively from school to school, and having worked in two schools in the same village, I can testify to the independent kingdoms that evolve behind the school gates. Teachers become immersed in the ways of their school, from planning formats to the sequence of school trips, and it becomes harder to break the mould each year. However, we've come up with some tips to help you develop the connections that could turn into a career defining, community strengthening project.

AVAILABLE RESOURCES

ENTHUSE PARTNERSHIPS £12,000 AVAILABLE

£12,000 is available for groups of between four and eight primary schools located in England, wishing to work together to address local issues of under-achievement in STEM subjects.

■ Visit www.stem.org.uk/mp/enthuse-partnership

SHARE CHALLENGES AND IDEAS ONLINE WITH THE PRIMARY RESOURCE COMMUNITY GROUP

■ www.stem.org.uk/mp/community

PRIMARY SCIENCE SUBJECT LEADERS' NETWORK

■ www.stem.org.uk/rp121

DEVELOPING THE EXPERIENCED SCIENCE SUBJECT LEADER

■ www.stem.org.uk/ny003

GET ONLINE

There is a massive push to make sure teachers act professionally on social media, it's also considered good practice to use these tools to make contact with other teachers from other schools. Most schools these days have a Twitter account which can be used to send messages to fellow teachers, and online conversations using hashtags makes it easy to find other teachers with an online presence. #ASEchat is a great example, where science educators use the hashtag every Monday evening to discuss a wide range of subjects from resources to student motivation. The communities on www.stem.org.uk can be great places to meet like-minded teachers as well as a place to discuss problems and new teaching methods.

FACE-TO-FACE CONTACT



Once you've got the right person's contact details, take the cross-school working to the next level by arranging a face-to-face meeting. Any chance to escape the realm, even for a short while, is something that you should take advantage of. There are huge benefits in simply seeing inside other schools. Every member of staff approaches displays differently, and there's a big difference in the reward systems in place – scavenger ideas!

COMBINED PROJECTS

For teachers willing to take the next step and embark on combined projects with other schools, the benefit to the pupils and themselves are massive, as well as the local community. It gives children the chance to learn the necessary life skill of making connections with new people. Teachers can take strength from a larger working team, as well as developing important leadership and organisational skills. The wider community benefits from a greater understanding between schools as well as the multitude of fairs, enterprise events and performances that are a hallmark result of teachers building bridges between their kingdoms.

TAKING THE PLUNGE



Talking to fellow professionals from different schools gives teachers an opportunity to gauge their own practice, as well as the effectiveness of their own school. Sometimes they'll come away feeling better and sometimes come away aware of shortcomings, but in both cases, the lessons learned can have more of an impact on a teacher's practice than any amount of twilight training sessions.

If you decide to take the plunge and step outside of your castle walls, you'll find yourself invigorated by the experience, and you'll return to your classroom with a fresh set of eyes on what is going well and the potential the future holds.



Outdoor learning and the indoor generation

A growing body of research suggests children in the UK are increasingly disconnected from the natural world, impacting on behaviour, as well as physical and mental wellbeing. We asked three experts to give us their opinions on how teachers can address this issue.



by Helen Minnikin-Spring Independent Education Advisor
@HMinnikinSpring

In his 2005 book, 'Last Child in the Woods', Richard Louv introduced the term Nature Deficit Disorder. Whatever you may think of the term itself, I'm sure the concept will resonate. We all know the children whose interests revolve solely around computer games; we all meet the parents who won't let their children outside because 'it's not safe'. As teachers, we actually want to take children outside – it's just the curriculum that seems to get in the way sometimes!

One of the things that we can do to address this issue is to take advantage of the many free schools visits out there. As an example,

Howsham Mill in North Yorkshire is a refurbished 18th Century flourmill, now generating its own electricity, which offers free school visits allowing children the opportunity to explore an island, cook over a fire and learn about renewable energy – as well as a whole host of curriculum linked activities.



by Dr Katherine Forsey Outdoor Learning Consultant
@DrBiol

Learning outside of the classroom often means learning outside of our comfort zone. So why do it, and more importantly how?

WHY?

Your students love it, the national curriculum requires it and it has proven benefits for your students. With topics such as animals, plants, habitats, evolution and seasonal change it's impossible to cover these areas effectively without going outside.

HOW?

Use your school grounds or local green space as the hook and context for lessons. The highest value outdoor resources are ponds, log piles and hedges or wildflower areas. Each year group can use them for simple exploration or full scale investigations. Gatekeeper and FSC identification charts and keys are fantastic and Nature Detectives' free downloads are perfect for younger children. When you get stuck with identification try iSpot, keep some spare sets of wet weather gear in your cupboard and most importantly, have fun and enjoy seeing your students in a whole new light!



by Graham Hockley Lead Science Teacher and Sea School Coordinator
@CMPS_SeaSchool

Four years ago, when asked what after school provision I would set up, I thought about; what would I want to attend? Something outdoors, possibly using the beach... And so, I created Combe Martin Primary School's 'Rock Pooling Club'. The mixed age club proved so popular and generated such fascinating learning that it has now been brought into the school curriculum. With accreditation from Torbay Coast



and Countryside Trust, South West Schools Federation became the first 'Sea School' in North Devon.

Having the beach so close to school, I believe that the children must be exposed to the environment that makes their home so special. The most significant impact on developing children's understanding of the ecology and science is to experience it. I work on the principle that the Primary Curriculum subjects, if used creatively, enable children to understand concepts and communicate deep understanding to their peers. Furthermore, it is our duty as educators to facilitate this love of learning outdoors.

AVAILABLE RESOURCES

OPEN AIR LABORATORIES
Get outside with OPAL (Open Air Laboratories) who have developed fantastic education packs to get primary pupils exploring food chains, mini-beasts, seeds and fruits – and much more!

■ www.stem.org.uk/cx3sb

WORKING SCIENTIFICALLY OUTSIDE THE CLASSROOM

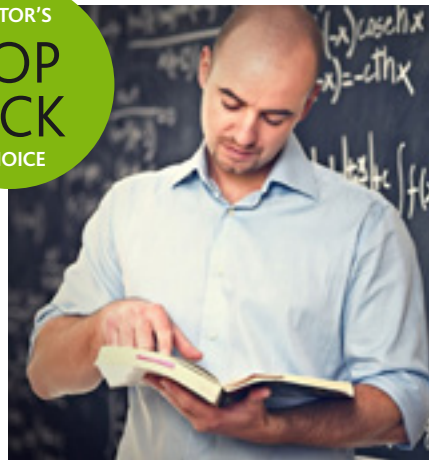
■ www.stem.org.uk/rp111

PLANNING SCHOOL VISITS TO ENHANCE SCIENCE AND MATHS

■ www.stem.org.uk/nv001

Our top picks for you to put in the calendar...

EDITOR'S TOP PICK CHOICE



TEACHER AND SUPPORT STAFF RECOGNITION SCHEME

Make sure you get your entry in for our Teacher and Support Staff Recognition Scheme. It's totally free and has been designed to recognise your commitment to professional learning and the impact it has had on students, colleagues and the wider profession.

■ Apply: www.stem.org.uk/mp/recognition

JANUARY 2016



PENGUIN AWARENESS DAY 20 JANUARY

Yes, you read it right, 20 January is Penguin Awareness Day. Why not celebrate in the classroom through this fun and creative activity, from the ARKive collection, pupils learn about the different types of penguin species and how they have adapted, physically and behaviourally, to live in different environments.

■ www.stem.org.uk/rx5wq

FEBRUARY 2016



LIBRARY LOVERS MONTH FEBRUARY

Our free eLibrary hosts over 10,000 quality assured teaching resources. As well as videos, games and worksheets to use in the classroom, we also have the latest policy and research documents as well as information on careers in STEM subjects.

With curriculum support, dedicated pages for different subjects and age groups, and curated lists of our top resources, what's not to love?

■ Visit today: www.stem.org.uk/elibrary



INTERNATIONAL DARWIN DAY 12 FEBRUARY

Did you know Darwin's works, 'The Origin of Species' which is considered to be the foundation of evolutionary biology is now over 156 years old?

To celebrate Darwin Day and his contributions to science we have handpicked a selection of our top evolution resources into a handy list for you to use in the classroom.

■ www.stem.org.uk/mp/evolution

FREE ONLINE CPD, ASSESSMENT FOR LEARNING 22 FEBRUARY

Our free online CPD is ideal for all teachers looking to improve their understanding and use of Assessment for Learning.

Led by Dylan Wiliam and Chris Harrison, two leading authorities on assessment for learning, and supported by Andrea Mapplebeck, this course will help to improve your understanding and use of assessment for learning, a term that is widely used in education, but applied in ways that are variable in their effectiveness. Learn how to write, judge and use the hinge questions that are central to assessment for learning in STEM.

■ Book today to secure your place, visit: www.stem.org.uk/mp/online-cpd

MARCH 2016

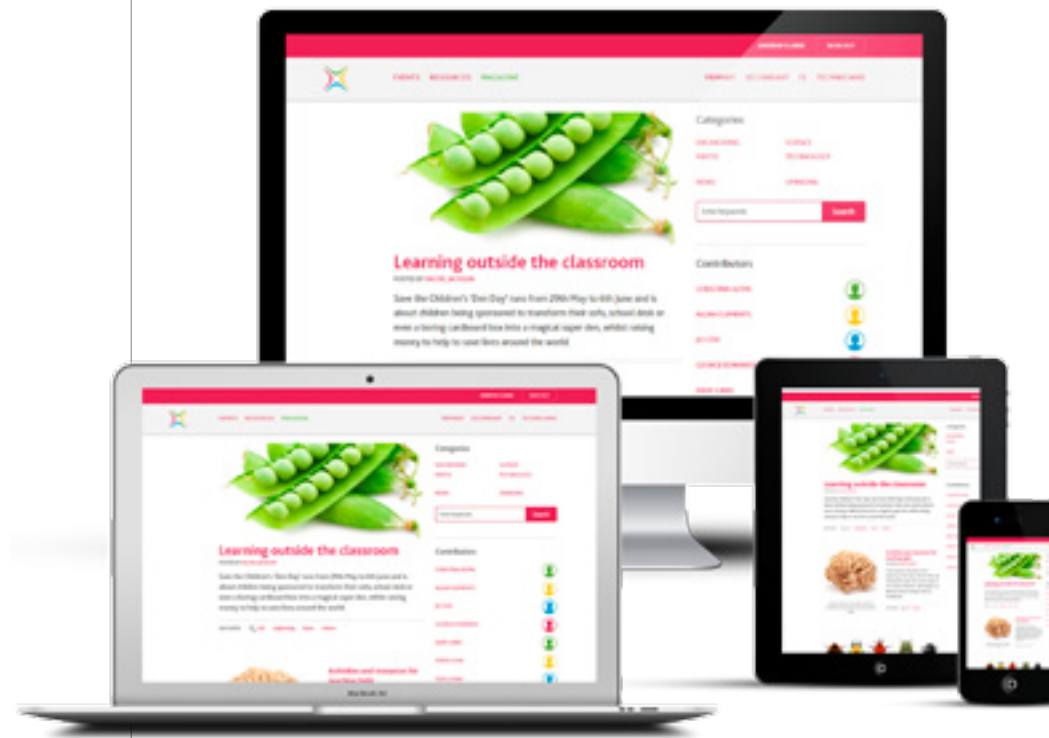


BRITISH SCIENCE WEEK 11 – 20 MARCH

British Science Week is a ten-day celebration of science, technology, engineering and maths - featuring fascinating, entertaining and engaging events and activities across the UK for people of all ages.

■ Find out more and get involved at: www.britishsienceweek.org

Our new website is here!



We have now launched our brand new website, incorporating the National Science Learning Network, the National STEM Centre, ESERO-UK and HeATED into one streamlined, easy-to-navigate website.

All our resources, CPD activities and blogs have been collected into one, easy-to-access destination. The site provides you with a dashboard which is customised around your needs and interests, bringing you the latest news and activities relevant to you. From here you will be able to track the CPD activities you have been on and manage your upcoming bookings.

It now offers a mobile and tablet friendly experience, allowing you to access everything we have to offer on the move.

Also don't worry! If you have an account on the National STEM Centre website or have previously booked onto a National Science Learning Network CPD activity then you will have an account on the new site, and will be able to access it with your current login details.

We hope you enjoy the new and improved experience of our website and share it with your colleagues and friends!

■ Visit our new website: www.stem.org.uk

Let's take a peek at what people have been tweeting:

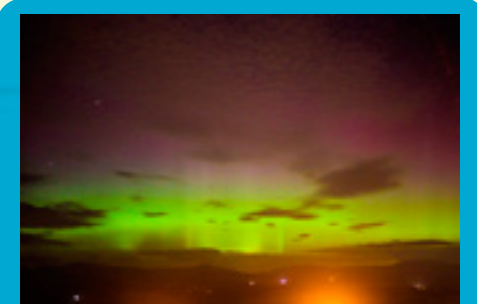
@NtlSTEMCentre
Followers: 15.2K

@ScienceVoice
Followers: 4764

@SciKathryn My absolute favourite resource at the @NtlSTEMCentre . Just have to have a play every time I'm here! pic.twitter.com/U2XvligDel



@wiskow_julie @NtlSTEMCentre Making Martian soil for my ITAOT lessons - #kneesache!



@AIDarkSkyWales #northernlights taken from Rhigos S. Wales October 7th @NtlSTEMCentre



@technologyfun Testing vibrating brush monsters for @BlueCoatPrimary club sponsored by @renishawplc @scrapstoreGlos @NtlSTEMCentre

Follow us @NtlSTEMCentre and @ScienceVoice and let us know what STEM related things you're up to!

Bursary supported continuing professional development (CPD)

You can access our CPD online, face-to-face locally through Science Learning Partnerships (SLPs) and on residential activities at the National STEM Learning Centre. We can also tailor our CPD to meet the individual needs of your department, school or network through our bespoke support.

Our high-quality CPD is also very affordable. Generous bursary funding from the Department for Education (DfE) and through Project ENTHUSE means all state funded schools, academies and colleges can benefit from Impact Award and ENTHUSE Award bursaries.

ENTHUSE AWARDS

ENTHUSE Awards contribute towards the costs of attending world-class professional development provided by the National STEM Learning Centre.

ENTHUSE Awards are provided by Project ENTHUSE which is a unique partnership of government, charities and employers that have come together to bring about inspired STEM teaching through the professional development of teachers, technicians and support staff across the UK.

■ www.stem.org.uk/mp/enthuse-awards

IMPACT AWARDS

Impact Awards are equivalent to 50% of the CPD fee and are available for many of the CPD activities offered through the Science Learning Partnerships across England. Impact Awards are provided by the Department for Education (DfE).

■ www.stem.org.uk/mp/impact-awards

All fees and award values are valid for state funded schools and are correct at the time of print (December 2015). See www.stem.org.uk for fees for non-state funded schools and the latest information.

See the impact CPD makes...

93% of participants who attended courses at the National STEM Learning Centre reported a **positive impact on their pupils.**

"I left every day enthused and full of ideas for new lessons and schemes of work."

- Primary Teacher, Hitherfield Primary School, 2015

95% of participants across our Network stated our CPD **positively impacted their own subject knowledge and skills.**

"Through the CPD, my knowledge in the delivery of science has been enhanced, I am more confident and enthused."

- Primary Teacher, Rudby Primary School, 2015

We work with over **76,800** teachers and technicians in the UK.

COMPUTING

PRIMARY COMPUTING CONFERENCE

High quality CPD, providing you with ideas, resources and contacts to help progress computing in your school for the coming year.

- Your school receives: £289 ENTHUSE Award
- Activity fee: £250 (ex VAT)
- 29 Jun 2016 York
- www.stem.org.uk/ty007

INTENSIVE SUBJECT-SPECIFIC CPD Accommodation and meals included

GETTING STARTED WITH CREATING MOBILE APPS IN THE PRIMARY CLASSROOM

This CPD activity takes you through the principles of app design, giving you lots of hands on time to develop your skills using the software.

- Your school receives: £578 ENTHUSE Award
- Activity fee: £551 (ex VAT)
- 3 Mar 2016 (2 days)
- www.stem.org.uk/ty017

RAISING ATTAINMENT IN ENGLISH AND MATHEMATICS AT KS1 THROUGH THE EFFECTIVE USE OF ICT

Develop a wider understanding of how ICT can be used to support learning in mathematics and English, with specific focus on engaging your learners and raising attainment.

- Your school receives: £578 ENTHUSE Award
- Activity fee: £551 (ex VAT)
- 21 Apr 2016 (2 days)
- www.stem.org.uk/ty014

RAISING ATTAINMENT IN ENGLISH AND MATHEMATICS AT KS2 THROUGH THE EFFECTIVE USE OF ICT

Develop a wider understanding of how ICT can be used to support learning in mathematics and English, with specific focus on engaging your learners, raising attainment and progress in KS2.

- Your school receives: £578 ENTHUSE Award
- Activity fee: £551 (ex VAT)
- 23 May 2016 (2 days)
- www.stem.org.uk/ty020

USING FILM TECHNOLOGY TO SUPPORT PRIMARY LITERACY

Explore a variety of film related skills and techniques for the classroom, from film analysis and shot direction to creating content using accessible technology and software.

- Your school receives: £578 ENTHUSE Award
- Activity fee: £551 (ex VAT)
- 16 Jun 2016 (2 days)
- www.stem.org.uk/ty021

USING MOBILE TECHNOLOGY TO ENHANCE LEARNING IN THE PRIMARY CLASSROOM: GETTING STARTED

This CPD activity is a beginner's guide to using your mobile device in the classroom. It is suitable for teachers and teaching assistants who are users of iPads, Android and Windows based devices.

- Your school receives: £578 ENTHUSE Award
- Activity fee: £551 (ex VAT)
- 14 Apr 2016 (2 days)
- www.stem.org.uk/ty015

USING MOBILE TECHNOLOGY TO ENHANCE LEARNING IN THE PRIMARY CLASSROOM: GOING FURTHER

This CPD activity is the next step for teachers and teaching assistants who are skilled in using a mobile device themselves and have some experience of the pupils using a mobile device in the classroom.

- Your school receives: £578 ENTHUSE Award
- Activity fee: £551 (ex VAT)
- 8 Feb 2016 (2 days)
- 8 Jun 2016 (2 days)
- www.stem.org.uk/ty018

DESIGN AND TECHNOLOGY

INTENSIVE SUBJECT-SPECIFIC CPD Accommodation and meals included

ELECTRICAL SYSTEMS, PROGRAMMING AND CONTROL

Learn about ways to implement ideas for teaching about circuits, including components symbols, innovative construction methods, project ideas and using simple inputs and outputs.

- Your school receives: £578 ENTHUSE Award
- Activity fee: £551 (ex VAT)
- 10 Mar 2016 (2 days)
- www.stem.org.uk/ty013

GETTING STARTED WITH CREATING MOBILE APPS IN THE PRIMARY CLASSROOM

This CPD activity takes you through the principles of app design, giving you lots of hands on time to develop your skills using the software.

- Your school receives: £578 ENTHUSE Award
- Activity fee: £551 (ex VAT)
- 3 Mar 2016 (2 days)
- www.stem.org.uk/ty017

LEADING AN EFFECTIVE DESIGN AND TECHNOLOGY CURRICULUM

This CPD activity is designed for computing subject leaders and teachers with a strong interest in leading design and technology.

- Your school receives: £1,302 ENTHUSE Award
- Activity fee: £1,102 (ex VAT)
- 14 Jan 2016 (4 days over 2 periods)
- www.stem.org.uk/ty011

TEACHING ENGINEERING IN THE CLASSROOM

Helping provide ideas, practical projects and resources to help make exciting engineering lessons possible in the primary classroom.

- Your school receives: £578 ENTHUSE Award
- Activity fee: £551 (ex VAT)
- 8 Jun 2016 (2 days)
- www.stem.org.uk/ty005

USING MOBILE TECHNOLOGY TO ENHANCE LEARNING IN THE PRIMARY CLASSROOM: GETTING STARTED

This CPD activity is a beginner's guide to using your mobile device in the classroom. It is suitable for teachers and teaching assistants who are users of iPads, Android and Windows based devices.

- Your school receives: £578 ENTHUSE Award
- Activity fee: £551 (ex VAT)
- 14 Apr 2016 (2 days)
- www.stem.org.uk/ty015

USING MOBILE TECHNOLOGY TO ENHANCE LEARNING IN THE PRIMARY CLASSROOM: GOING FURTHER

This CPD activity is the next step for teachers and teaching assistants who are skilled in using a mobile device themselves and have some experience of the pupils using a mobile device in the classroom.

- Your school receives: £578 ENTHUSE Award
- Activity fee: £551 (ex VAT)
- 8 Feb 2016 (2 days)
- 8 Jun 2016 (2 days)
- www.stem.org.uk/ty018

MATHEMATICS

INTENSIVE SUBJECT-SPECIFIC CPD

Accommodation and meals included

GETTING STARTED WITH CREATING MOBILE APPS IN THE PRIMARY CLASSROOM

This CPD activity takes you through the principles of app design, giving you lots of hands on time to develop your skills using the software.

- Your school receives: £578 ENTHUSE Award
- Activity fee: £551 (ex VAT)
- 3 Mar 2016 (2 days)

■ www.stem.org.uk/ty017

PLANNING SCHOOLS VISITS TO ENHANCE SCIENCE AND MATHEMATICS

Take a fresh look at your school visits, including a trip to London to experience the type of school visits available to you.

- Your school receives: £667 ENTHUSE Award
- Activity fee: £500 (ex VAT)
- 23 Mar 2016 (2 days)

■ www.stem.org.uk/nv001

USING MOBILE TECHNOLOGY TO ENHANCE LEARNING IN THE PRIMARY CLASSROOM: GETTING STARTED

This CPD activity is a beginner's guide to using your mobile device in the classroom. It is suitable for teachers and teaching assistants who are users of iPads, Android and Windows based devices.

- Your school receives: £578 ENTHUSE Award
- Activity fee: £551 (ex VAT)
- 14 Apr 2016 (2 days)

■ www.stem.org.uk/ty015

USING MOBILE TECHNOLOGY TO ENHANCE LEARNING IN THE PRIMARY CLASSROOM: GOING FURTHER

This CPD activity is the next step for teachers and teaching assistants who are skilled in using a mobile device themselves and have some experience of the pupils using a mobile device in the classroom.

- Your school receives: £578 ENTHUSE Award
- Activity fee: £551 (ex VAT)
- 8 Feb 2016 (2 days)
- 8 Jun 2016 (2 days)

■ www.stem.org.uk/ty018

SCIENCE

ASSESSMENT IN THE NEW PRIMARY SCIENCE CURRICULUM... A WORLD WITHOUT LEVELS

Evidence shows that effective assessment for learning leads to raised attainment. Identify how you can integrate and embed assessment practices into your science teaching.

- Your school receives: £107.50 Impact Award
 - Activity fee: £215 (ex VAT)
 - 20 Jan 2016 Sheffield
 - 22 Jan 2016 Orpington
 - 26 Jan 2016 Peterborough
 - 27 Jan 2016 Crewe / Hereford
 - 29 Jan 2016 London / Leeds
 - 5 Feb 2016 Altrincham
 - 2 Mar 2016 Milton Keynes
 - 3 Mar 2016 Bedford
 - 20 Mar 2016 Blackburn
 - 20 Apr 2016 Bristol
 - 21 Apr 2016 Gloucester
- www.stem.org.uk/rp102

CREATING A BUZZ: RUNNING SUCCESSFUL SCIENCE CLUBS, EVENTS AND VISITS

You will be inspired to enthuse your pupils about the thrill of scientific ideas and science enquiry.

- Your school receives: £57.50 Impact Award
- Activity fee: £115 (ex VAT)
- 2 Feb 2016 Keele / Bradford
- 15 Mar 2016 Crewe

■ www.stem.org.uk/rp117

CROSS CURRICULAR SCIENCE INCLUDING LITERACY AND NUMERACY IN THE NEW CURRICULUM

We focus on providing a science curriculum which will help raise attainment not only in Mathematics and English but across the curriculum.

- Your school receives: £107.50 Impact Award
- Activity fee: £215 (ex VAT)
- 2 Feb 2016 Preston
- 4 Feb 2016 Blackburn

■ www.stem.org.uk/rp065

DEVELOPING SCIENCE SUBJECT LEADERS

Explore a range of strategies to audit and lead science in your school, understand your role more fully and be able to identify and promote effective primary science.

One day:

- Your school receives: £107.50 Impact Award
- Activity fee: £215 (ex VAT)
- 19 Jan 2016 Preston
- 21 Jan 2016 Blackpool
- 2 Feb 2016 Sheffield
- 4 Feb 2016 Leeds

- 11 Feb 2016 Keele
- 24 Feb 2016 Wimborne

Two day:

- Your school receives: £215 Impact Award
 - Activity fee: £430 (ex VAT)
 - 11 Feb 2016 Norwich
- www.stem.org.uk/rp101

DEVELOPING SUBJECT UNDERSTANDING IN PRIMARY SCIENCE

Focus on the big ideas in primary science, helping you make a difference to children's learning by identifying and challenging misconception.

Half day:

- Your school receives: £57.50 Impact Award
- Activity fee: £115 (ex VAT)
- 21 Jan 2016 Year 1 or Year 2, Doncaster
- 25 Jan 2016 London
- 26 Jan 2016 Year 3 or Year 4, Doncaster
- 2 Feb 2016 London
- 10 Feb 2016 Year 1 or Year 2, Hull
- 17 Feb 2016 Year 5 or Year 6 Doncaster
- 1 Mar 2016 Year 5 or Year 6 Hull
- 23 Mar 2016 London

One day:

- Your school receives: £107.50 Impact Award
 - Activity fee: £215 (ex VAT)
 - 29 Jan 2016 Kendal
 - 2 Feb 2016 London
 - 3 Feb 2016 Keele
- www.stem.org.uk/rp112

HELPING YOU IMPLEMENT THE LATEST SCIENCE CURRICULUM

Our experienced primary practitioners will help review your provision in line with the primary curriculum guidance and offer strategies and advice for any gaps in your plans.

- Your school receives: £215 Impact Award
- Activity fee: £430 (ex VAT)
- 21 Jan 2016 Bishop's Stortford

■ www.stem.org.uk/rp104

LINKING THE CORE SUBJECTS: LITERACY AND SCIENCE

Explore the curriculum links between science and literacy and how to develop literacy skills to improve the quality of children's written explanations in science.

Half day:

- Your school receives: £57.50 Impact Award
- Activity fee: £115 (ex VAT)
- 3 Feb 2016 Wirral
- 15 Jun 2016 Herefordshire

One day:

- Your school receives: £107.5 Impact Award
 - Activity fee: £215 (ex VAT)
 - 19 Apr 2016 Milton Keynes
 - 10 Jun 2016 Birmingham
 - 23 Jun 2016 Leamington Spa
- www.stem.org.uk/rp114

LINKING THE CORE SUBJECTS: MATHEMATICS AND SCIENCE

Identify how to maximise your pupils opportunities to develop their numeracy skills and improve attainment in science by planning lessons in which children effectively handle data.

- Your school receives: £107.50 Impact Award
 - Activity fee: £215 (ex VAT)
 - 25 Feb 2016 Devon
- www.stem.org.uk/rp113

PRIMARY CONFERENCE

This conference provides outstanding learning opportunities linked to topical developments in primary science teaching.

- Your school receives: £107.50 Impact Award
- Activity fee: £215 (ex VAT)
- 11 Mar 2016 Kendal

■ www.stem.org.uk/rp124

PRIMARY SCIENCE CONFERENCE

Bringing together primary teachers, science subject leaders and teaching assistants who are interested in developing science within their schools.

- Your school receives: £289 ENTHUSE Award
- Activity fee: £250 (ex VAT)
- 1 Jul 2016 York

■ www.stem.org.uk/ny007

PRIMARY SCIENCE CONFERENCE: PRACTICAL IDEAS AND ACTIVITIES TO SUPPORT NEW PRIMARY SCIENCE

This conference is an ideal opportunity to develop your subject knowledge and skills whilst exploring the most effective strategies for assessment and elicitation in primary science.

- Your school receives: £107.50 Impact Award
- Activity fee: £215 (ex VAT)
- 3 Feb 2016 Cheltenham
- 4 Feb 2016 Wokingham

■ www.stem.org.uk/rp830

PRIMARY SCIENCE SUBJECT LEADERS' NETWORK

These meetings are a chance for subject leaders to learn about the latest local and national initiatives in science and keep abreast of developments within the subject.

Afternoon session:

- Your school receives: £42.50 Impact Award
- Activity fee: £85 (ex VAT)
- 24 Feb 2016 Crewe

Half day:

- Your school receives: £57.50 Impact Award
 - Activity fee: £115 (ex VAT)
 - 3 Feb 2016 Doncaster
 - 23 Feb 2016 Brigg
 - 13 Apr 2016 Doncaster
 - 14 Jun 2016 Scunthrope
- www.stem.org.uk/rp121

RAISING ATTAINMENT IN PRIMARY SCIENCE

Identify teaching and learning strategies that will move good lessons to outstanding lessons by focussing on the learning happening in the classroom.

- Your school receives: £107.50 Impact Award
 - Activity fee: £215 (ex VAT)
 - 4 Mar 2016 Telford
- www.stem.org.uk/rp103

RESOURCING THE PRIMARY SCIENCE CURRICULUM

Become more familiar with the National STEM Centre eLibrary resources and participate in interactive workshops to create a resource package for a science topic.

- Activity fee: £40 (ex VAT)
- 9 Feb 2016 York

■ www.stem.org.uk/ny038

SCIENCE AS A VEHICLE FOR RAISING ATTAINMENT IN ENGLISH AND MATHEMATICS

You will investigate science activities that provide a context to teach and assess mathematics and develop literacy skills to improve the quality of the children's written work in science.

- Your school receives: £57.50 Impact Award
- Activity fee: £115 (ex VAT)
- 2 Mar 2016 Crewe

■ www.stem.org.uk/rp833

SCIENCE FOR EYFS

This CPD activity will increase your confidence in using a range of approaches and assessment strategies to meet children's needs in Early Years.

- Your school receives: £107.50 Impact Award
- Activity fee: £215 (ex VAT)
- 9 Feb 2016 Blackburn
- 8 Mar 2016 Leeds
- 10 Mar 2016 Leamington Spa

■ www.stem.org.uk/rp120

SUBJECT LEADER UPDATE

This update will address current issues in primary science education and provide teachers with some new ideas to take back to the classroom.

- Your school receives: £289 ENTHUSE Award
- Activity fee: £265 (ex VAT)
- 1 Mar 2016 York

■ www.stem.org.uk/ny050

SUPERMARKET SCIENCE

This practical CPD will provide you with a bank of easy to use ideas that you can take away with you to enable your pupils to conduct experiments and have fun.

- Your school receives: £107.50 Impact Award
 - Activity fee: £215 (ex VAT)
 - 10 Feb 2016 Yeovil
 - 12 Feb 2016 Gloucester
- www.stem.org.uk/rp125

TAKING SCIENCE OUTSIDE

We offer practical advice to help you make the most of the resources around your school and beyond the classroom to inspire your pupils.

- Your school receives: £107.50 Impact Award
- Activity fee: £215 (ex VAT)
- 12 Apr 2016 Sheffield
- 8 Jun 2016 Herefordshire/Birmingham
- 9 Jun 2016 Northampton
- 23 Jun 2015 Milton Keynes

■ www.stem.org.uk/rp111

TEACHING SCIENCE IN EYFS AND KS1

Try out ideas for practical science that can be used with young children to develop a range of scientific skills and explore opportunities to promote children's social skills.

Half day:

- Your school receives: £57.50 Impact Award
- Activity fee: £115 (ex VAT)
- 2 Mar 2016 Skipton

One day:

- Your school receives: £107.50 Impact Award
- Activity fee: £215 (ex VAT)
- 19 Jan 2016 London
- 9 Feb 2016 Bedford

■ www.stem.org.uk/rp109

WORKING SCIENTIFICALLY IN THE NEW PRIMARY CURRICULUM

Learn to implement strategies for enquiry in order to improve children's outcomes through effective teaching of scientific enquiry.

Half day:

- Your school receives: £57.50 Impact Award
- Activity fee: £115 (ex VAT)
- 22 Jun 2016 Skipton

One day:

- Your school receives: £107.50 Impact Award
- Activity fee: £215 (ex VAT)
- 19 Jan 2016 Wirral
- 20 Jan 2016 Doncaster
- 21 Jan 2016 Wallsend
- 3 Feb 2016 Bristol
- 22 Apr 2016 Oldham
- 18 May 2016 Northampton
- 22 Jun 2016 Oldham

■ www.slcs.ac.uk/rp107

WORKING SCIENTIFICALLY IN THE NEW PRIMARY CURRICULUM: PUPILS TAKING THE LEAD

You will explore a range of techniques to draw out pupil ideas and develop strategies to inspire and incorporate these ideas into your science lessons.

- Your school receives: £107.50 Impact Award
- Activity fee: £215 (ex VAT)
- 1 Mar 2016 Bristol

■ www.stem.org.uk/rp108

INTENSIVE SUBJECT-SPECIFIC CPD Accommodation and meals included

DEVELOPING THE EXPERIENCED SCIENCE SUBJECT LEADER

Explore best practice and interact with research at local, national and international levels in order to get the best out of their staff and pupils.

- Your school receives: £3,707 ENTHUSE Award
- Activity fee: £3,246 (ex VAT)
- 27 Apr 2016 (9 days over 3 periods)

■ www.stem.org.uk/ny003

ENRICHING PRIMARY SCIENCE THROUGH INSPIRATIONAL IDEAS.

A perfect opportunity to explore some of the exciting activities which you can do to suit all budgets and with links to the National Curriculum.

- Your school receives: £861 ENTHUSE Award
- Activity fee: £852 (ex VAT)
- 23 May 2016 (3 days)

■ www.stem.org.uk/ny045

ENRICHING THE PRIMARY CURRICULUM USING SPACE AND ASTRONOMY

Using the inspirational elements of space and astronomy, you will engage in activities to extend pupils' knowledge.

- Your school receives: £674 ENTHUSE Award
- Activity fee: £581 (ex VAT)
- 3 Mar 2016 (2 days)

■ www.stem.org.uk/ny017

EXTENDING THINKING AND LEARNING IN PRIMARY SCIENCE

Develop a clear understanding of progression, differentiation and assessment in science as well as effective questioning aimed at stimulating curiosity, discussion and higher order thinking skills.

- Your school receives: £1,156 ENTHUSE Award
- Activity fee: £1,102 (ex VAT)
- 8 Feb 2016 (4 days over 2 periods)

■ www.stem.org.uk/ny001

LEADING EARLY YEARS SCIENCE

Explore the nature of teaching & learning in Early Years, identifying national and international innovation and its potential for affecting change in science.

- Your school receives: £3,711 ENTHUSE Award
- Activity fee: £3,411 (ex VAT)
- 11 Jan 2016 (9 days over 3 periods)

■ www.stem.org.uk/ny002

NEW AND ASPIRING PRIMARY SCIENCE SPECIALIST

This innovative programme combines hands-on subject knowledge workshops with specially sequenced sessions that will support you initiate and lead change in your school.

- Your school receives: £3,778 ENTHUSE Award
- Activity fee: £3,478 (ex VAT)
- 20 Jan 2016 (8 days over 3 periods)

■ www.stem.org.uk/ny010

PLANNING SCHOOLS VISITS TO ENHANCE SCIENCE AND MATHEMATICS

Take a fresh look at your school visits, including a trip to London to experience the type of school visits available to you.

- Your school receives: £667 ENTHUSE Award
- Activity fee: £500 (ex VAT)
- 23 Mar 2016 (2 days)

■ www.stem.org.uk/nv001

PRIMARY SCIENCE FOR NEWLY AND RECENTLY QUALIFIED TEACHERS

Understand the requirements of the primary science curriculum, improve your subject knowledge and make time to plan for excellent science lessons.

- Your school receives: £867 ENTHUSE Award
- Activity fee: £852 (ex VAT)
- 4 Jul 2016 (3 days)

■ www.stem.org.uk/ny015

SCIENCE AND THE CREATIVE ARTS

Develop creative approaches to primary curriculum planning and delivery in schools intended to raise both children's and teachers' aspirations and achievements.

- Your school receives: £1,348 ENTHUSE Award
- Activity fee: £1,162 (ex VAT)
- 23 Feb 2016 (4 days over 2 periods)

■ www.stem.org.uk/ny008

SCIENCE IN THE OUTDOOR CLASSROOM

Perfect for schools wanting to develop scientific approaches to primary teaching and learning in the outdoor classroom.

- Your school receives: £1,435 ENTHUSE Award
- Activity fee: £1,397 (ex VAT)
- 17 Mar 2016 (4 days over 2 periods)

■ www.stem.org.uk/ny009

SUPPORTING PUPILS IN PRIMARY SCIENCE

Focusing on how best we can support and motivate less able pupils, you will be given the opportunity to engage with current theory and best practice in the field.

- Your school receives: £1,348 ENTHUSE Award
- Activity fee: £1,162 (ex VAT)
- 2 Mar 2016 (4 days over 2 periods)

■ www.stem.org.uk/ny043

ONLINE

ASSESSMENT FOR LEARNING

Improve your understanding and use of assessment for learning, a term that is widely used in education, but applied in ways that are variable in their effectiveness.

- Activity fee: Free
- 22 Feb 2016

■ www.stem.org.uk/mp/online-cpd

STEM Learning's key report on major European school / industry collaboration study is now available

STEM Learning is pleased to release a targeted report detailing best practices for schools and STEM employers to increase meaningful links between science education and STEM careers. The report is based on findings from the pan-European InGenious project, a wide-ranging and rigorous study which worked with 26 schools across Europe trialling a range of industry interventions to see which had the most impact on students awareness and interest in pursuing STEM careers. STEM Learning Ltd played a pivotal role in the study evaluation.

- Summaries of the report are available to download at: www.stem.org.uk/mp/ingenious



PROJECT ENTHUSE

Supporting state funded schools across the UK with access to high impact professional development.

Project ENTHUSE is a unique partnership of government, charities and employers that have come together to bring about inspired STEM teaching, through the continuing professional development of teachers, technicians and support staff across the UK. The ENTHUSE Partners are the Wellcome Trust, the Department for Education, BAE Systems, Biochemical Society, BP, Institution of Engineering and Technology, Institution of Mechanical Engineers, Rolls-Royce and the Royal Society of Chemistry.

ENTHUSE AWARDS

Bursaries available to all state funded schools and colleges in the UK to support participation in professional development through the National Science Learning Centre and partners in Scotland, Northern Ireland and Wales.

■ www.stem.org.uk/mp/enthuse

INTENSIVE ENTHUSE AWARDS

£5,000 bursaries to support in-school, consultant led professional development for state schools in England that have not participated in Project ENTHUSE supported professional development in the last five years.

■ www.stem.org.uk/mp/intensive-enthuse

ENTHUSE PARTNERSHIPS

£12,000 for groups of between four and eight primary schools located in England, working together to address local issues of underachievement in science/STEM subjects.

■ www.stem.org.uk/mp/enthuse-partnership

Excitement. Amazement. Awe.

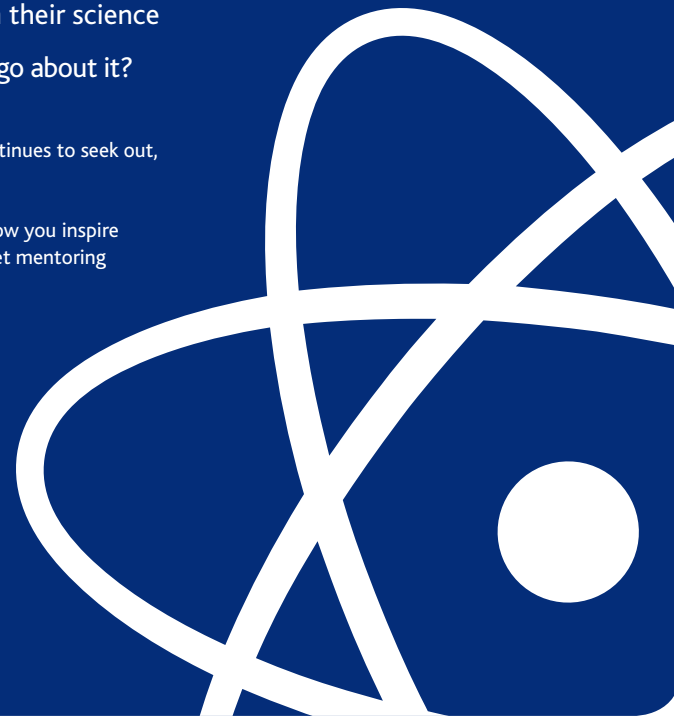
That's the kind of reaction teachers aim to get from their science and mathematics students, every day. So how do you go about it?

The Rolls-Royce Science Prize is an annual awards programme that continues to seek out, recognise and acknowledge inspirational teaching.

If you're a teacher, teaching assistant or technician, we want to hear how you inspire pupils. Not only could your school share in our award fun, you'll also get mentoring support for a full year to see your plans turned into reality.

■ Find out more and enter at www.rolls-royce.com/scienceprize

Rolls-Royce Science Prize



Primary Science resource packages



Access free, quality assured packages of resources on the National STEM Centre eLibrary

www.stem.org.uk/mp/primaryscience



Bespoke CPD tailored to your needs

Our comprehensive range of support can be requested as a bespoke offer for your department, school or network. We can make the CPD more effective and tailored to the specific challenges and needs your school faces.

We have a proven track record of highly evaluated, impactful professional development and a wealth of experience in supporting teachers, technicians and support staff in all aspects of STEM education.

■ www.stem.org.uk/mp/bespoke-cpd



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UK SPACE
AGENCY

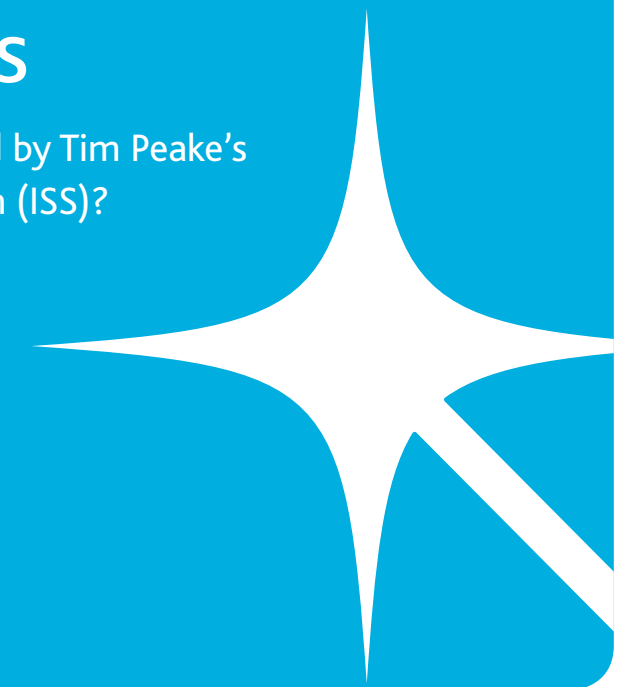
Tim Peake inspires

Have you and your students been inspired by Tim Peake's mission to the International Space Station (ISS)?

ESERO-UK has created a page dedicated to the educational resources linked in to Tim's mission and human spaceflight. These resources include:

- AstroPi – access data from two Raspberry Pi computers running aboard the ISS, and explore coding with your students
- Rocket seeds - discover more about this exciting project, which will see packets of rocket seeds sent to the ISS and then grown back on Earth
- Explore the ISS with our great collection of resources looking at life aboard this flying laboratory

■ And many more! To explore the full range of free, STEM related resources visit www.stem.org.uk/mp/timpeake



Explore our new website

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