

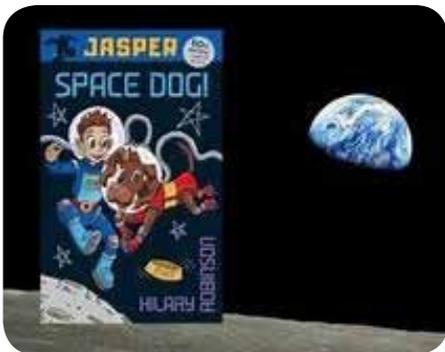


Welcome to the Science Hub Newsletter

The focus of the hub is to support schools and individuals to develop their teaching of science in primary and secondary schools, and FE colleges across Lincolnshire.

All our programmes and projects are designed to have a positive impact on participants to ensure that we have a high impact on the science education of young people. To impact positively on young people we work with teachers and support staff working in science education across Lincolnshire to help improve subject knowledge, pedagogy and leadership.

LATEST NEWS...



THE NATIONAL LITERACY TRUST

The National Literacy Trust have released a collection of space-themed resources which support the development of literacy & scientific skills. 'Jasper: Space Dog' by Hilary Robinson, takes pupils on a voyage of lunar discovery to commemorate the 50th anniversary of the first moon landing. Children are supported with their question formulation and research skills.

www.literacytrust.org.uk

THE MET OFFICE

The Met Office has released a new collection of free resources to encourage children to become more interested in the world around them. A range of lesson plans, interactive activities and games are available on www.metoffice.gov.uk



Forecasting fact-busters

SCIENCE WEEK 2020 THEME RELEASED



Next year's Science Week theme has been released! Science Week 2020 will take place between 6-15 March 2020.

The theme is 'Our diverse planet'. More information including activity packs & grant opportunities will be available on the website. www.britishscienceweek.org

SUPPORTING SCIENCE IN SEND

We have been successful in securing funding from STEM Learning to facilitate a network of science leads within SEND provision. The meetings will be led by Kyna Atkins, acting HT at The Lincoln St Christopher's School. We are thrilled to be able to support this network which will focus on effective teaching & learning in science & leadership skills. Details can be found on our website of sessions and their focus.

"Thank you for an excellent day - incredibly useful and really engaging."

"Lots of ideas to make science teaching more relevant to everyday life and more enjoyable."

"It was all incredibly useful, massive range of ideas, books, resources and activities."

WEBSITE OF THE MONTH

www.britishscienceweek.org

CLICK HERE FOR MORE INFORMATION

Primary Engineer® Programmes
...the first step



Primary Engineer and Boston Borough Council are working together to offer Nursery Practitioners, Reception Teachers and Primary teachers in the Boston area Early Years Engineer and Primary Engineer Programmes.

EARLY YEARS ENGINEER PROGRAMME

The CPD course will be hosted by MetsaWood (PE21 0BJ) on **Tuesday 25th February** with access to free resource kit.

To secure a place please contact Emma at Primary Engineer on emma.hargreaves@primaryengineer.com or visit our online link at www.earlyyearsengineerboston.eventbrite.co.uk

PRIMARY ENGINEER PROGRAMME

The CPD course will be hosted by MetsaWood (PE21 0BJ) on **Wednesday 26th February** with access to free resource kit and linked with an engineer from industry.

To secure a place please contact Emma at Primary Engineer on emma.hargreaves@primaryengineer.com or visit our online link at www.primaryengineer-bostonfreecdp.eventbrite.co.uk

CONNECT TEACHING SCHOOL ALLIANCE CPD OFFER



CONTINUING PROFESSIONAL DEVELOPMENT

Science

The CONNECT Assessing Primary Science Network (CAPS network) links our subject leader network clusters with targeted CPD designed to engage, inform and challenge not only Science Subject Leads, but also classroom teachers from across the primary phase.



Subject Leader Networks are FREE to Alliance Member schools.

The structure of this programme lends itself to Subject Leaders or Senior Leaders attending for the whole day and/or class teachers from across the Primary Phases, to attend relevant afternoon sessions.

This is designed to be flexible and will enable schools to select staff members for each session who will be able to implement with the greatest impact on school. This may take the form of a 'mix and match' booking system, we are more than happy to accommodate.

We are delighted to have Nicola Beverley designing, leading and shaping this growing network. Nicola is an experienced school improvement professional, with extensive specialist knowledge of primary teaching and learning built up over 20 years in and around primary schools. She is a nationally renowned primary science specialist and was a science advisory teacher for several years.

Nicola has worked as a science consultant nationally in the development of science assessment practice. She worked with QCA to create and pilot the 'Assessing

Pupils' Progress in Primary Science' resource and shape its roll out across the country. She was also part of the expert group responsible for developing science assessment materials for the Standards and Testing Agency (part of the DfE). She has been a Curriculum Advisor for KS2 Science assessment at STA/DfE for the last five years, responsible for aspects of test development.

Nicola now works directly with a variety of training providers, teaching school networks, schools, teachers and children across the country to develop science, curriculum and assessment practice.

Working closely with Nicola to develop our programme for Science is Dr Craig Early, Head Teacher at Wygate Park Academy. A chemist, Craig works with The Association for Science Education, Primary Science Teaching Trust and Stem Learning, writing materials, training and delivering at National Conferences. Through their collaboration, Nicola and Craig are able to share the most current and exciting elements of science teaching and learning with our alliance partners.

Our ambition is to raise the profile of Science in local schools through quality CPD, mentoring and support for those championing Science in our schools.

AN OPPORTUNITY FOR SCIENCE SUBJECT LEADERS TO:

- Develop their understanding of the role and responsibilities of subject leadership, particularly in the context of the new Ofsted framework
- Consider a variety of monitoring and evaluation strategies that might be used to carry out a progression review or 'deep dive' into science in school
- Improve their subject knowledge and understanding of progression in key aspects of science across KS1 & KS2
- Plan for implementation and impact. With support and in collaboration with colleagues, SLs will consider ways to influence and bring about impact in their own schools.

SCIENCE SUBJECT LEADER NETWORKS

• 2nd October 2019 • 27th November 2019 • 5th February 2020

1.30pm-3.30pm



SUBJECT LEADER DEVELOPMENT NETWORK 1 Curriculum matters: Reviewing your curriculum and knowing your subject		NETWORK INTRODUCTORY DAY
<p>Wednesday 2nd October 2019</p> <p>9.30am-3.30pm</p> <p>The nature of curriculum and what 'quality' means in that context, has stimulated much discussion in schools over recent months. This network introduction will provide subject leaders with an opportunity to use the Ofsted terms, 'intent', 'implementation' and 'impact', as they review the existing science curriculum in their schools and plan for its development. Just what do these terms mean and how can their use help us to reflect on and advance current science practice?</p>	<p>A variety of subject curriculum concerns will also have a part to play, including</p> <ul style="list-style-type: none"> • establishing a clear vision for science • building children's science capital • developing quality vocabulary as a means of communicating and applying subject understanding • knowing your subject – monitoring and evaluation activities to explore progression and 'deep dive' into science in your school. 	
<p>Wednesday 27th November 2019</p> <p>9.30am-12pm</p> <p>SUBJECT LEADER DEVELOPMENT NETWORK 2 Building knowledge in school: Biology focus</p> <ul style="list-style-type: none"> • Essential updates and feedback on action taken by SLs in their own schools. • What has implementation and impact looked like to date? • KSs – Just what should children know and understand? 	<p>1pm-3.30pm</p> <p>TEACHER WORKSHOP 1: Biology across the Key Stages</p> <ul style="list-style-type: none"> - A whistle stop tour, focussing on the importance of progression in key learning, featuring practical starting points and vocabulary development activities relevant to all year groups. 	
<p>Wednesday 5th February 2020</p> <p>SUBJECT LEADER DEVELOPMENT NETWORK 3: Building knowledge in school: Working Scientifically focus</p> <ul style="list-style-type: none"> • Essential updates and feedback on action taken by SLs in their own schools. • What has implementation and impact looked like to date? • Exploring progression in Working Scientifically knowledge and understanding across the KSs – Just what should we be looking for at every key stage or part key stage? 	<p>TEACHER WORKSHOP 2: Working Scientifically across the Key Stages - Focussing on the importance of progression in working scientifically knowledge, understanding and skills across the key stages, teachers will encounter a variety of stimulating enquiry starting points ideas appropriate to each KS.</p>	
<p>Wednesday 3rd June 2020</p> <p>MODERATION WORKSHOP – KS2 TEACHERS</p> <p>A chance for teachers and subject leaders from ALL year groups in KS2 to consider assessment evidence, moderate and secure their judgements of children's progress, prior to submitting end of year or KS data.</p>	<p>MODERATION WORKSHOP – KS1 TEACHERS</p> <p>A chance for teachers and subject leaders from either year group in KS1 to consider assessment evidence, moderate and secure their judgements of children's progress, prior to submitting end of year or end of KS data.</p>	

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TECHNICIANS SUPPORTING PRACTICAL WORK IN THE CLASSROOM

Technicians from around the county met for a day on 11th December to try out inexpensive and engaging practical techniques and to discuss how they could better support practical work in the classroom. They had a very enjoyable day with lots of hands-on practical work.

Following the success of this course, we are planning to put on technician courses to support required practical activities at GCSE and A level.

If you are interested please email science@lincstsa.co.uk

OFSTED

Ofsted has produced a summary of their research into quality science teaching, learning & leadership. Intention and substance: further findings on primary school science from phase 3 of Ofsted's curriculum research (2019) highlights the key factors in ensuring effective science outcomes and the role of the science curriculum lead in driving achievement.

CLICK HERE for more information



FREE TEACHER WORKSHOP

WHAT TO EXPECT:

- A 2 hour session of LEGO® Education Academy Certified Training aimed at lead primary teachers for computing, science and other STEM subjects.
- Hands-on learning and activities
- Learn how to use the resources to engage your pupils and meet National Curriculum objectives at KS 1+2
- Classroom Management tips
- Certificate of attendance
- Free resources and lesson plans
- Free LEGO® - each attendee will receive a free Mini Milo LEGO® set
- Fun! Fun! Fun!

Book through Eventbrite, see our website for more details

FREE TEACHER WORKSHOP

Exploring the Primary Computing & Science Curriculum with LEGO Education WeDo 2.0

Join us and discover the power of hands-on learning with LEGO Education!



Monday 27th January 2020, 4pm-5.45pm

The Richmond School, Richmond Drive,
Skegness PE25 3SH

Wednesday 11th March 2020, 4pm-6pm

Edith Weston Primary Academy, Weston Road,
Upper Hambleton, Edith Weston, Oakham LE15 8HQ

IOP Institute of Physics FREE INSTITUTE OF PHYSICS WORKSHOPS

**Our next workshop is
Thursday 23rd January 1pm-4pm
at The Priory Academy LSST,
Lincoln LN5 8PW
and the topic is Light & Sound**



SUBJECT LEADERS' DEVELOPMENT MEETING

Have you secured your place on the next SLDM meeting which is taking place at The Keyworth Centre, LN6 0EP on Monday 9th March 2020? The session will run 9am-3.30pm and the fee is £70.

These meetings are aimed at Science Curriculum Leaders. They are open to all institutions and relevant to those delivering secondary level qualifications in science.

Feedback examples from the last meeting:

"A whole wealth of insight delivered well."

"Very useful and lots to take away and think about."

"Excellent networking"

CRITICAL THINKING FOR ACHIEVEMENT

We recently ran a hugely successful two-day, fully funded training course on Critical Thinking for Achievement.

After the first day, delegates took away a range of ideas and techniques to trial with their classes.

On day two they considered how to make their pupils more independent thinkers and tried a further range of techniques.

At the end of the course the participants from eligible schools received resource packs from the Geographical Association or the Association for Science Education to use in schools.

If you are interested in future training opportunities like this please email science@lincstsa.co.uk

PRIMARY SCIENCE SUBJECT LEADERS' MEETINGS

Our science network meetings run once a term at 5 venues across the county making them easily accessible to all teachers.

Each session has a focus and includes updates on resources, initiatives, grants, funding and the national picture and gives an opportunity to collaborate with colleagues and share best practice.

SPRING sessions will focus on animals,
SUMMER sessions will focus on plants.



PRESENTER: JANE BANHAM
TIMES: 1PM-4PM

Cost per session
£50

EAST LINDSEY The Richmond School PE25 3SH	SPRING SUMMER	Monday 27th January 2020 Monday 18th May 2020
LINCOLN CITY Manor Farm Academy LN6 9ST	SPRING SUMMER	Thursday 30th January 2020 Wednesday 6th May 2020
WEST LINDSEY Mercer's Wood Academy DN21 2PD	SPRING SUMMER	Tuesday 28th January 2020 Tuesday 5th May 2020
SOUTH HOLLAND Long Sutton Primary School PE12 9EP	SPRING SUMMER	Monday 3rd February 2020 Wednesday 20th May 2020
SOUTH KESTEVEN Malcolm Sargent Primary School PE9 2SR	SPRING SUMMER	Thursday 6th February 2020 Thursday 21st May 2020

PRIMARY SCIENCE COURSE

Assessment and progression in primary science

**Wednesday 29th
January 2020**

9.30am-3.30pm

The Keyworth Centre, LN6 0EP

Cost per session
£99

Evidence shows that effective Assessment for Learning (AfL) leads to raised attainment. Now that formal recording of levels has been removed, you need to be secure in your understanding of how to make judgements about children's achievements and progress. Throughout the course we will identify how you can integrate and embed assessment practices into your science teaching.

SECONDARY CPD COURSES

For information or to book,
please visit our website
www.lincolnshiretsa.co.uk



Cost per
session
£99

Mathematics in Science Teaching

**Wednesday 22nd
January 2020**

9.30am-3.30pm

The Keyworth Centre, LN6 0EP

There is an increased mathematical demand in science and a greater understanding is necessary to accelerate learning and raise attainment for science GCSE's.

This course explores the typical weaknesses in mathematics that hinder students' ability to understand and solve scientific problems. It will give teachers an increased confidence in teaching the mathematical aspects of secondary science and the skills and strategies to meet these requirements.

Behaviour Management in Science

**Tuesday 4th
February 2020**

9.30am-3.30pm

Bluecoat Meres Academy,
Grantham NG31 7PX

Supporting teachers new to the profession in considering ways of managing the behaviour of their students so that a positive, effective learning environment can be sustained. You will look at how you can develop your classroom style with strategies to create a positive learning environment: helping to encourage all students to engage with science and make progress in their learning. You will discuss ways you can react to common (and uncommon) examples of misbehaviour to try to avoid unnecessary confrontation and return to learning.

Meeting the new Ofsted framework in secondary science

**Monday 2nd
March 2020**

9.30am-3.30pm

Bluecoat Meres Academy,
Grantham NG31 7PX

N.B. This is a course for Science Subject Leaders/other Science TLR holders

The Ofsted framework introduced in September 2019 requires science leaders to have a clear curriculum vision for the subject, and be able to implement it effectively. Using Ofsted's 3Is (Intent, Implementation and Impact) as a foundation, this course will guide participants through both the new framework and their current science curriculum, to ensure that the department, and its teachers and students, are better prepared.

The course will help identify strengths and weaknesses in your current curriculum provision – from teaching and learning in lessons, to broader thinking beyond exam specifications that links school science to the outside world.

Essential skills for new and aspiring secondary science leadership

Monday 23rd March 2020

9.30am-3.30pm

Bluecoat Meres Academy,
Grantham NG31 7PX

Working with an experienced science leader, you will develop your vision and leadership skills to enable you to lead an effective and vibrant science team. By improving your leadership and management skills you will help your team teach more effectively so students achieve their potential.