



Science Lead School Update Bulletin

Oct 2015, No. 3

If you are reading an e-version, most of the titles are hyperlinked for more information. If you are reading a paper copy, the [links](#) are available at the end.

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1. Lead School Support

In the lead school team we are supporting the implementation of the new GCSE across North Wales through offering support, leading activities and managing communication channels that will allow schools to work together. This involves:

- producing and organising resources
- encouraging schools to share resources
- offering individual support and guidance to schools
- managing online support
- organising/taking part in face to face local/regional meetings

What are we doing this month?

- The key event for November is the joint **WJEC/Lead School Subject Briefing** in the **Beaufort Park, Mold and the Royal Victoria Hotel, Llanberis** on the **11th & 12th November**. More information about the events and how to book on can be found on [page 2-3](#) of this bulletin. Apologies for the need to book on twice, this is due to the different requirements for WJEC and Lead School. If you have not booked on as yet, please do so ASAP. GwE will be providing schools with a contribution towards cover costs for attendance at the afternoon session.



- **County Science Forums** are being organised for all six counties of North Wales. Some County Forums are well established for others these will be initial meetings. These are essential opportunities for local heads of science to meet and discuss issues. Please watch out for information coming your way about your local forum.
- There is a [Twitter](#) feed for lead school (@gwesciencelead). If you are on Twitter and haven't as yet subscribed, please do so. It is a very quick way for us to get information out to schools on what is going on in science education in North Wales.
- There is a [Hwb Network for science education in North Wales](#). To find this, log in to Hwb, click on the "Community" drop down menu, click on "Hwb Networks", then in the search bar search for "GwE science", or click on the link above. This network is intended as a place for science teachers across North Wales to ask (and answer) questions, share resources, access support and keep up to date with the latest information. It is currently being populated with resources and information.
- We are in the process of uploading resources onto our section of the [GwE website](#). The resources will be organised to reflect the structure of the new Science GCSE. The development of resources is an ongoing process and over the course of this year we will be uploading resources to the site. Logon details for the site have been sent through to every school in North Wales. Please ensure that you have been given login details for your school. If you can't access the logon information, please contact us at leadschool@alun.flintshire.sch.uk or email PeterMaddocks@gwe.org.uk.
- During November members of the lead school team will be visiting schools across North Wales to offer **individual support, advice and guidance for KS4 teaching**. This could just be a discussion with the head of department or the science team, or a longer visit looking at current practice and helping to develop a departmental plan of action. If you would like someone from the lead school team to visit your school, please contact us on leadschool@alun.flintshire.sch.uk
- The Welsh Government have produced a [Winter 2015 STEM Planner](#) with details of teacher and student events and resources that are planned across Wales for the winter term.

2. Teacher CPD

WJEC / Lead School Courses for New Specification GCSE Science Suite - WJEC are running two sets of workshops for schools in North Wales for the new GCSE Science Suite for delivery from Sept 2016. The "Briefing Session" will be in November followed by "Preparing to Teach" in March 2016. The November course is in the Beaufort Park, Mold, and the Royal Victoria Hotel, Llanberis will be run in conjunction with us as Science Lead School. The morning sessions run by WJEC will focus on the specification and assessment materials. The afternoon sessions run by Lead School staff will focus on teaching methodology, resource sharing and the role of the lead school. Relevant dates and locations are below.

Hodder WJEC CPD Training - Hodder Education are running courses to "equip you to deliver an 'Outstanding' and engaging GCSE course." Relevant date and location are below.



Science Learning Network "Getting them thinking with science and mathematics" (NW011) – This course is designed to improve students' thinking and problem solving skills to allow them to "stimulate the 'higher order' creative thinking skills". This course is "full of fun, novel and easy to deliver 'hands on' science and maths investigations, experiments, puzzles, 'tricks' and other engaging activities and ideas."

WJEC - Briefing Session / Lead school - Teaching and Resource Development

Beaufort Park Hotel, Mold – Weds, 11 Nov 2015, 9:30 am - 3:30 pm

Royal Victoria Hotel, Llanberis – Thurs, 12 Nov 2015, 9:30 am - 3:30 pm

Cost – Free. Maximum one delegate per centre

It is essential that all schools attend this session.

WJEC - Preparing to Teach

Mold – Weds, 9 Mar 2016, 9:30 am - 3:30 pm

Caernarfon – Thurs, 10 Mar 2016, 9:30 am - 3:30 pm

Cost – Free. Maximum three delegates per centre

It is essential that all schools attend this session.

Hodder - Teaching and Learning for the New WJEC GCSE Science Specification

Llandudno - Fri, 18 Mar 2016, 9:45 – 4pm

Cost - £245

SLN - Getting them thinking with science and mathematics (NW011)

Conwy Business Centre, Conwy – 26, 27 Nov 2015 and 11 Mar 2016, 9:30 am – 3:30 pm

Cost - £100 (an ENTHUSE award of up to £350 is available to cover costs)

3. Student Workshops and Activities

FREE KS4 Scientific Literacy Workshops in your school. Techniquet Glyndwr (TQG) have delivered these workshops to several North Wales Schools. The workshops can be delivered in your school to groups of up to 30 students. They engage KS4 pupils with scientific literacy. This involves encouraging pupils to explore concepts and explain the phenomena presented using their scientific knowledge. The workshops would be especially useful to schools who are undertaking the PISA tests in November.

The workshops available are:

Motion and Forces - This workshop focuses on real life applications of motion and forces, including ballistics, projectiles and inertia.

The Earth Under Pressure - This workshop focuses on real life applications of Earth science, including seismology, air pressure and convection.

To book the workshops please contact scot@tqg.org.uk. Click [here](#) and login to Hwb to download the workshop resources.

BP Ultimate STEM Challenge (KS3) – Students need to develop an energy efficient solution to one of three real-world challenges: Streamlined Ships, Better Buildings or Trim Turbines.



[Armourers and Brasiers Tata Sixth Form Materials Prize \(6th form\)](#) is designed to support schools in encouraging students to develop an interest in materials science and engineering. The deadline for registrations to take part is Fri, 4 Dec 2015. Deadline for submission of portfolios is Fri, 1 Jul 2016.

[Safer Internet Day 2016 \(KS3, KS4 and 6th form\)](#) – WG and the UK Safer Internet Centre have launched an app competition. Judges will be looking for innovative apps that share important information or use smartphones or tablets to help keep others safer online. The winning apps will have a professional makeover and made available on the App Store on Safer Internet Day (9 Feb 2016).

[The Royal Society of Biology \(KS3, KS4 and 6th form\)](#) run a range of competitions and challenges throughout the school year for students of all ages.

[Biology Olympiad](#), [Physics Olympiad](#) and [Chemistry Olympiad \(6th Form\)](#) – Three great competitions to challenge your most able students.

[RSC North Wales Chemistry Quiz \(6th Form\)](#), 6pm – 8:30pm, Weds, 18th Nov 2015 at TQG, Wrexham. The annual event has prizes and lots of free pizza. The registration process on the [RSC website](#) is notoriously problematic, so if you have problems, email leadschool@alun.flintshire.sch.uk to let us know you are coming, and you can formally register on the night. Click [here](#) and login to Hwb to access a poster/flyer for your school.

4. Teaching Resources

[BP](#) and [Siemens](#) - Take a look at the resources being offered by these two companies. The resources are varied and generally focus on chemistry or physics.

[Marsballoon](#) is a free project that will launch students' science experiments 30km up into Earth's atmosphere to replicate atmospheric conditions on Mars. Register now for the next flight; up to 100 student experiments will be launched, each of which should fit into a Kinder Egg toy capsule. After the flight the capsules will be returned to the schools for analysis. There is no cost to take part other than the cost of the experiment materials and postage.

['People like me'](#) is a set of training and teaching resources to encourage and inspire KS3 girls to study science and technology subjects.

The National Science Learning Network have launched a new **magazine called Secondary STEM Learning**. [Issue 1](#) is currently available as a free download from their website

5. Funding

[Thomas Howell's Education Fund for North Wales](#) grants are awarded to support the education of young people in North Wales, particularly those from a low-income, otherwise disadvantaged background or area of high deprivation. Funding is typically provided on a one-off basis and the grant has no upper value limit.

[UK-China Schools Partnerships Programme](#) promotes learning and exchange between UK and Chinese teachers and students. Grants of £1500 per school are available to be used during the project for



teacher visits, professional development courses or project expenses. Both you and your Chinese partner school will work together on a joint project, in a STEM subject between 1 January and 31 December 2016. Application Deadline is 15th November 2015.

6. Links

1. <https://twitter.com/GweScienceLead>
<https://hwb.wales.gov.uk/Profile/edec4b50-2ed7-499e-9a5d-b6a5bffb9a93/overview>
<http://pisavle.gwegogledd.cymru/login/?ReturnUrl=/Default.aspx>
2. <http://shop.wjec.co.uk/index.php?nav=13&stage=3&cID=452&langID=1>
<http://shop.wjec.co.uk/index.php?nav=13&stage=3&cID=417&langID=1>
<https://www.hoddereducation.co.uk/Event/313>
<https://www.sciencelearningcentres.org.uk/cpd/f00c9160-13fc-431e-9f21-043f1129f4b3/getting-them-thinking-with-science-and-mathematics/>
3. <http://www.techniquest.org/20120301303/education/secondary-at-your-school.html>
<https://hwb.wales.gov.uk/Profile/edec4b50-2ed7-499e-9a5d-b6a5bffb9a93/files/ff4b8d7d-7b1f-43a3-933a-3792043a44e0>
<http://bpes.bp.com/stem-challenge/ultimate-stem-challenge/>
<http://www.iom3.org/ab-sixth-form-prize>
<http://www.rsb.org.uk/get-involved/awards-and-competitions>
<http://www.ukbiologycompetitions.org/>
<http://www.physics.ox.ac.uk/olympiad/>
<http://www.rsc.org/campaigning-outreach/outreach/educators/uk-chemistry-olympiad/?id=6279>
<http://www.rsc.org/events/detail/19257/Chemistry%20and%20Me%20-%20Quiz%20and%20talks>
<https://hwb.wales.gov.uk/Profile/edec4b50-2ed7-499e-9a5d-b6a5bffb9a93/files/ff4b8d7d-7b1f-43a3-933a-3792043a44e0>
4. <http://bpes.bp.com/secondary-resources/science/>
<http://www.siemens.co.uk/education/en/teachers/teachers-home.htm>
<http://marsballoon.com/>
<https://www.wisecampaign.org.uk/about-us/wise-projects/people-like-me>
https://www.sciencelearningcentres.org.uk/media/filer_public/2b/6f/2b6ffe2d-bd95-4889-bd5b-c71849f4c48e/stem_learningmagazine_01_webres.pdf
5. [http://www.thedrapers.co.uk/Charities/Applying-For-A-Grant/THFENW-\(English\).aspx](http://www.thedrapers.co.uk/Charities/Applying-For-A-Grant/THFENW-(English).aspx)
<https://schoolsonline.britishcouncil.org/about-our-programmes/chinese-programmes/china-partnership-grant>