

LASAR ~ Newsletter no. 16 (Summer 2016)



Dear Reader,

The next few months are going to see changes for the LASAR team with a new base to build up at Canterbury Christ Church University, Kent! Dr Berry Billingsley will be Professor in Education at Canterbury from September 2016 and LASAR will have team members at both Reading and Canterbury.

So fear not! We will be continuing to work with the wonderful people who have participated in our event days, workshops, surveys, residential and other parts of the project so far over the years. Without your participation our research project would not be able to continue and we thank you for that, and look forward to collaborating with you in the future!

From the autumn term we are offering free in-school workshops for Year 9-10 Computer Science lessons – more information below. You may also want to come to our conference – just £40 for a day of talks and networking with international and national speakers, researchers and teachers! Details below.

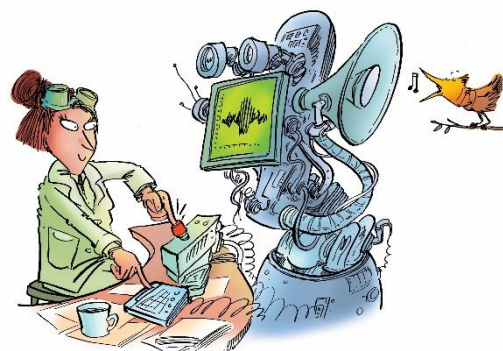
More plans afoot - watch out for our autumn newsletter and we will also put news on our website:

<http://www.faradayschools.com/events/>

Free in-school Computer Science workshops for Year 9 and 10

Can a robot hear? Pushing the boundaries of robotics

In this interactive workshop students discover strategies that engineers are using to produce robots that can think and behave in ever more humanlike and sophisticated ways. They learn that one strategy focuses on programming a digital computer to control a robot to perform particular behaviours; while another exploits plasticity in artificial analogue neurons to discover whether useful responses will emerge developmentally through exposure to stimuli. The objectives are for students to increase their understanding of cutting edge science and engineering, to develop and apply their analytic, problem-solving, design and computational thinking skills, as well as to appreciate that some of the questions are more amenable to scientific methods than others.



For further information on this workshop and/or for your school to take part please contact Zoe at LASAR@reading.ac.uk.

Science & Religion in Education Conference 2016



New ways to discover and advance student's and the wider public's reasoning about science and religion.

Date: Friday 28th October

Time: 9.30 am- 5.30 pm

Location: University of Oxford, Department of Education, 15 Norham Gardens

A conference exploring links between education, science and religion, organised by the LASAR Project with the Department of Education, University of Oxford and Canterbury Christ Church University.

Just £40 for a day of talks, networking and more. The conference will be beneficial for:

- Science teachers and educators
- RE teachers and educators
- Researchers in education
- Academics
- Postgraduate and undergraduate students studying related subjects

Registration is now open! Please use the following link:

<http://www.store.reading.ac.uk/browse/product.asp?compid=2&modid=2&catid=51>

For more information about the conference and the call for papers please get in touch at LASAR@reading.ac.uk, or visit www.faradayschools.com/conference.

Science & Religion in Education Symposium 2016



Prior to the Science & Religion conference we are hosting a day long symposium on the 27th of October 2016 at the University of Oxford, Somerville College (11:00-17:00). The purpose of this symposium is to facilitate meetings for future project collaborations.

The symposium is open to all of those interested, particularly those who will be attending the conference on the 28th October in Oxford.

For more information about the symposium, please get in touch at LASAR@reading.ac.uk.

FREE resources for schools

Check out our animations page! These videos will be great for planning next year's lessons about evolution, fossils and more!!

- Sir Isaac Newton
- Galileo and his big idea
- The Evolution of the Horse
- How does an ammonite become fossilised
- Mary Anning, the fossil hunter
- A brief history of life on Earth



<http://www.faradayschools.com/primary/animations/>

Year in Review: Events for schools

We ran two successful events this summer term, one for Primary on the 22nd June and one for Secondary pupils on the 21st June at London Road Campus, University of Reading. Thanks again to all of you who joined us; it was great to see the pupils so engaged with the content of the various workshops!

The event for Year 6 explored topics bridging science and religion with a particular focus on Origins – as the topic of Evolution is now a compulsory part of the science curriculum from this year.



Secondary school pupils experienced a day of workshops, activities and debates exploring some of life's 'big questions'. Topics were addressed by leading scientists and experts and included, genetics, robotics, origins, philosophy, ethics and more.

LASAR Research Study: All in your genes?



The LASAR team have recently run a number of successful workshops in Secondary Schools for Year 10 students on the topic; **'All in your genes? Students' approaches to learning about science, personality and behaviour.**

These workshops covered GCSE content knowledge and key ideas from scholarly debates on genetic determinism (e.g. determinism and free will).

Within the workshop students addressed common misconceptions in science. Students began by examining the nature-nurture debate, discussing how scientists are trying to understand both the contributions of our genes and our environment in making us who we are. One of the main questions that the workshop focused on was, 'what can science tell us about what makes us human?' This is a well-known area of debate,

often appearing in science stories in the media. These workshops were successful in getting students to question; is there a something beyond 'nature and nurture', a third space? Are we ultimately just the products of our genes and upbringing? Do we really have free will? Are we just a brain in a box? What makes us human and can science provide the answers?

For more information on how to take part, contact Zoe at LASAR@reading.ac.uk.

Year 6 Gravitational Waves workshops

This term we ran some in-school workshops in Year 6 classes on gravitational waves to highlight how science in the news can be used to address the science curriculum while also getting excited about the bigger questions raised by science. Students looked at how important observations are in science and how sometimes predictions can take hundreds of years to prove.

They also discussed how questions can have layered explanations in order get students thinking across disciplines instead of limiting it to traditional classroom subjects.

Read more about one of these workshops covered by the BBC:

<http://www.bbc.co.uk/news/education-36577208>

