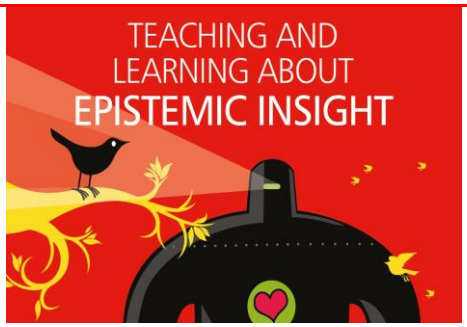
LASAR ~ Newsletter no. 18 (Summer 2017)



Dear Reader,

Our LASAR base is now fully established at Canterbury Christ Church University, Kent! We have had a busy few months launching our new Epistemic Insight project and our new website www.EpistemicInsight.com

Epistemic Insight and Big Questions for Classrooms Symposium Friday 27th October 2017

This year LASAR's symposium will be convened jointly with Whitelands College at Roehampton University.

The symposium is designed in particular for teachers, teacher educators, researchers, academics … and those interested in science, religion and education.

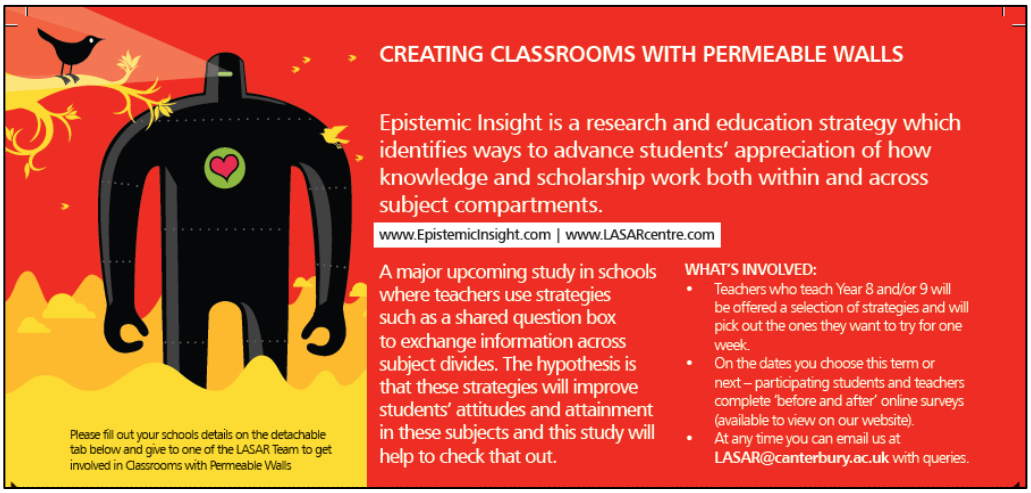
It will take place at Whitelands College, Roehampton University from 11am – 5pm.

The theme of the conference is 'Epistemic Insight and Big Questions for Classrooms'.

To register your interest please email LASAR@canterbury.ac.uk we will post updates on the websites: http://LASARcentre.com/ www.EpistemicInsight.com

Book publications and Research

Please look out for "A Teacher's Guide to Science and Religion in the Classroom" (Routledge) which is due to be published in January 2018. We've added a new chapter called "Storytelling and Galileo" by David Hutchings and a foreword by Professor Trevor Cooling.



Permeable Classroom Walls – A major upcoming study in schools where teachers exchange information across subject divides to give students a more joined up experience of education. We are trying to find out how crossing the boundaries of different subjects in the classroom may help to improve attainment, and this pilot project is one step towards finding that out.

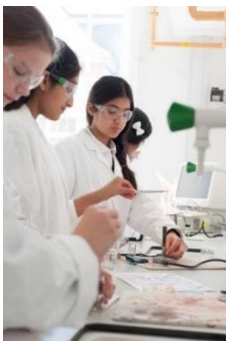
Our pilot project is composed of three parts:

- A pre-intervention survey and another survey after the intervention is finished.
- An intervention whereby for three days teachers and other participating teachers trial a choice of strategies to create classrooms with permeable walls.
- A survey for students to complete in the classroom

The strategies we put forward are designed to give students a more joined up approach to learning about the knowledge generating disciplines that they study in school. The aim is not to remove subject compartments or do away with the teaching of individual disciplines – but rather to add strategies to help students to appreciate what makes each of the disciplines distinctive and how they all interact.

Upcoming events for schools

Booking is now open for the next academic year for Sixth Formers;



- Wednesday 7th February 2018 (Sixth Form) - Westminster Abbey.
- Wednesday 27th June 2018 (Sixth Form) - CCCU

Our sixth form event on 7th February is called 'Ultimate Questions and Puzzles of the Universe'. The following conundrum will be a theme for the day: Physics has been used to suggest that there are patterns underpinning everything we see and everything that happens in the Universe – and we might suppose that we would eventually see repetition (the same mile of rocky coastline, the same path of a falling leaf), but in practice our experience of the world and

of each other is that each person and each rock, each mile of coastline etc. is unique; The day will include workshops, plenary talks and activities.

Our primary events look at topics bridging science and religion with a particular focus on Space, origins Evolution and Big Questions about life, the Universe and everything! – Evolution is now a compulsory part of the science curriculum.

Our 'Sixth Form Plus' event is open to Years 10, 11 and 12. Students will experience a day of workshops, activities and debates exploring some of life's big questions. Topics are addressed by leading scientists and experts and include genetics, robotics, origins, philosophy, ethics and more.

Registration forms and more information can be obtained by emailing LASAR@canterbury.ac.uk

FREE Primary online animations

The FaradaySchools website has a new animation on Isaac Newton! There are also many more animations for primary - visit:
http://www.faradayschools.com/primary/animations/

Galileo and his big idea

The Evolution of the Horse

How does an ammonite become fossilised?

Mary Anning, the fossil hunter

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

Can a robot hear – or only respond to sound? Can a robot care or only help humans to care?

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. The workshop is designed to develop young people's appreciation of what it means to be human through a cross-curricular unit that bridges Computer Science, RE and Science.

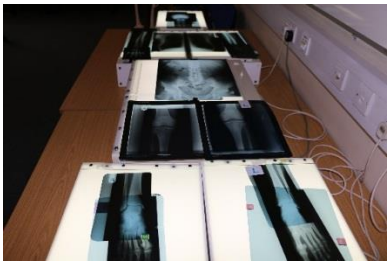
The rationale for the approach is that in most secondary schools teaching takes place in specialist subject areas. While this approach meets many objectives, it means that students' encounters with big questions can be fragmented into individual subject compartments. The objectives are for students to 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 reveal to teenagers that some 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 Kate at LASAR@canterbury.ac.uk

Epistemic Insight Project Launch and LASAR Showcase 18th May 2017

Berry delivered her well attended and lively inaugural lecture hosted by Deputy Vice Chancellor David Shepherd to an audience including the TWCF.

The lecture proceeded the LASAR showcase and launch of Epistemic Insight, Canterbury Christ Church University. Cross-Faculty University colleagues presented a colourful and insightful exhibition.



Four Robotics and Genetics workshops were delivered for Year 8 students including for LASAR Showcase and including a "Risk, Bones and Spaghetti workshop" with Radiography students and Health Simulation colleagues.

Sixth Form Conference at Westminster Abbey – 19th March 2017

Should robots be given legal status as 'electronic persons?' That was one of the questions discussed at the Conference for Sixth Formers held by Westminster Abbey Education and LASAR (Learning about Science and Religion) Centre from Canterbury Christ Church University in March at St Margret's Church in London. This was a day where one hundred Year 12 and 13 students from eight schools took part in discussing big questions relating to science and religion and more specifically considered the power and limitations of humanoid robotic technology and what this means for the future of robots.

Agnes, the knitting robot, and a photovore looking for light, welcomed the students when they entered St Margaret's Church. Andy, the designer and creator of both machines, was there to answer questions for students and discuss how they worked.

The day started with a Keynote by Berry where the concept of truth was discussed. What is truth? Does 'truth' change when you look at it from a different perspective? Students saw photos of a physical version of the impossible triangle at Perth, Australia. I explained that it illustrates the way that truth can seem to change as you move to a different perspective. Seen from the front the triangle creates its particular illusion but from side-on, we can see how the illusion is achieved and then examine afresh what we are seeing from the front.

Westminster Abbey Education and LASAR are planning on running this session again on 7th February 2018 – Registration forms and more information can be obtained by emailing LASAR@canterbury.ac.uk

LASAR at Conferences

Over the coming months the LASAR team will be representing the project at various academic conferences around the country.

On 22nd June 2017 our team lead workshops at the annual Canterbury Christ Church University **Partnership ITE Conference** (Initial Teacher Education) representing the Faculty of Education and introducing Epistemic Insight to school Mentors at the Discovery Park, Sandwich. Our workshops will include:

- "Can a robot be called a person?" Developing primary children's intellectual curiosity, epistemic insight and scholarly attitudes by addressing how 'amenable' is a question to science (Prof Berry Billingsley, Dr Manzoorul Abedin)
- 'Robotic assistant or electronic person? Developing tools to advance secondary school students' appreciation of the power and limitations of science in real world and multidisciplinary arenas (Prof Berry Billingsley, Dr Mehdi Nassaji)

You can also look out for us at the following forthcoming conferences:

- **'Religion, Society, and the Science of Life, IRC-ISSR Conference':** Oxford, 19 –22 July 2017.
- **BERA – (British Educational Research Association):** Sussex, 5 -7 September 2017.
- **ASE (the Association for Science Education):** Liverpool, 3 – 6 January 2018.