ASE Annual Conference 2011
Welcome from the Vice-Chancellor  Professor Gordon Marshall

The University of Reading is delighted, once again, to be hosting the Association for Science Education Annual Conference.

Ranked among the top 200 universities in the world, we are proud of our reputation for providing outstanding teaching, research and outreach opportunities in a wide range of science subjects, including biology, chemistry, mathematics, meteorology, food and nutrition, pharmacy, cybernetics, and agriculture.

The major challenges facing society today include threats to our environment, to health, and to our food supplies, and these cannot be addressed adequately by a single discipline alone. The multidisciplinary nature of our teaching and research reflects this by inspiring and encouraging innovative collaborations across our student and staff communities; for example, this autumn will see the launch of our new Centre for Food Security, which will complement our existing and path-breaking Walker Institute for Climate Systems Research.

Since your last visit in 2009 we have made significant investment in facilities and instrumentation to support our academic activities. These include a new building to house our Institute for Cardiovascular and Metabolic Research, a multi-million pound Chemical Analysis Facility, and a state-of-the-art MRI scanning suite. We are committed to providing the best possible environment to promote research and teaching excellence.

We are extremely proud of our association with the ASE and of our long-standing work with science teachers. Most recently, in late 2009, we launched our Science Studios - a hub for STEM activity, offering opportunities for groups of school students to visit the University, in order to undertake a wide variety of activities and experiments.

We are pleased that this year’s conference programme includes a host of exciting opportunities for you to visit some of these new facilities, as part of the new tours programme, and to hear about some of our new research within the substantial programme of Frontier Science Lectures.

We are very much looking forward to welcoming you to our campus in January 2011.

Frontier Science Lecture Programme
from The University of Reading Academic Staff

Thursday

0930 FS01 FRONTIER SCIENCE: Genetic Insights Into the Early Parent-Child Relationship
Dr Pasco Fearon, School of Psychology & Clinical Language Sci.

0930 FS02 FRONTIER SCIENCE: Self-Healing Polymers
Dr Wayne Hayes, Department of Chemistry

1130 FS03 FRONTIER SCIENCE: Carbon Sequestration and Dating: The Potential of Earthworms and Calcium Carbonate
Professor Mark Hodson, Department of Soil Science

1130 FS04 FRONTIER SCIENCE: The Effects of Plant-Based Phytochemicals On Human Cognition
Dr Jeremy Spencer, Department of Food and Nutritional Sciences

1400 FS05 FRONTIER SCIENCE: Climate Change in the UK: What Does the Future Hold?
Professor Nigel Arnell, Walker Institute for Climate System Research

1400 FS06 FRONTIER SCIENCE: Lab on a Chip: Novel, Miniaturised Technologies for Environmental Science
Dr Andy Wade, Department of Geography

1600 FS07 FRONTIER SCIENCE: Modelling the Digital Society and Digital Economy: Creating New Spaces in Which to Work and Play
Professor Peter Grindrod, Department of Mathematics and Statistics

1600 FS08 FRONTIER SCIENCE: Probiotics and Prebiotics for Gut Health: Science or Hype?
Professor Bob Rastall, Department of Food and Nutritional Sciences

Friday

0930 FS09 FRONTIER SCIENCE: Exploring a Roman Town: Magnetics, Ground Penetration Radar and Gamma-Rays at Silchester
Dr John Creighton, Department of Archaeology

0930 FS10 FRONTIER SCIENCE: Will our Families Inherit a Carbon Footprint or a Sustainable Future?
Dr Katherine Hyde, School of Construction Management and Engineering

1130 FS11 FRONTIER SCIENCE: Managing the Variability of Low Carbon Energy Supplies
Phil Coker, School of Construction Management and Engineering

1130 FS12 FRONTIER SCIENCE: Visual Intelligence
Dr James Farryman, School of Systems Engineering

1400 FS13 FRONTIER SCIENCE: Digital Information Processing at the Molecular Level
Professor Howard Colquhoun, Department of Chemistry

1400 FS14 FRONTIER SCIENCE: Statistics in Clinical Trials
Dr Sue Todd, Department of Mathematics and Statistics

1600 FS15 FRONTIER SCIENCE: Exploring the Link Between Nutrition, Memory and Learning
Dr Anthony Bulter, School of Psychology & Clinical Language Sciences

1600 FS16 FRONTIER SCIENCE: Mathematics in the Sewers: Developments in Acoustic Inverse Problems
Professor Simon Chandler-Wilde, Department of Mathematics and Statistics

Saturday

0930 FS17 FRONTIER SCIENCE: Foreigners in Roman Britain: Isotopes and Skeletons
Dr Hella Eckardt, Department of Archaeology

0930 FS18 FRONTIER SCIENCE: The Dynamic Cell: Visualising Cellular Processes with Advanced Microscopy Techniques
Dr Phil Dash, School of Biological Sciences

1130 FS19 FRONTIER SCIENCE: Bleeding Cancer Disease of Horse Chestnuts: Understanding the Pathogen and its Evolution
Dr Rob Jackson, School of Biological Sciences

1130 FS20 FRONTIER SCIENCE: Measurement in Feedback Systems
Dr Silvia Hadjiiova, School of Systems Engineering

1400 FS21 FRONTIER SCIENCE: Grabbing the Attention of Rat-Brained Robots
Dr Ben Whalley, Department of Pharmacy

1400 FS22 FRONTIER SCIENCE: London’s Urban Climate
Dr Janet Barlow, Department of Meteorology

1530 FS23 FRONTIER SCIENCE: Monitoring Climate Change From Space
Dr Richard Allan, Department of Meteorology