Australian Government

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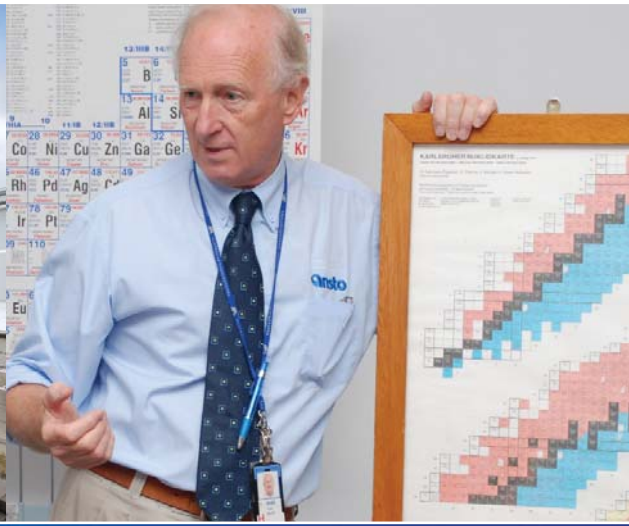
Nuclear-based science benefiting all Australians

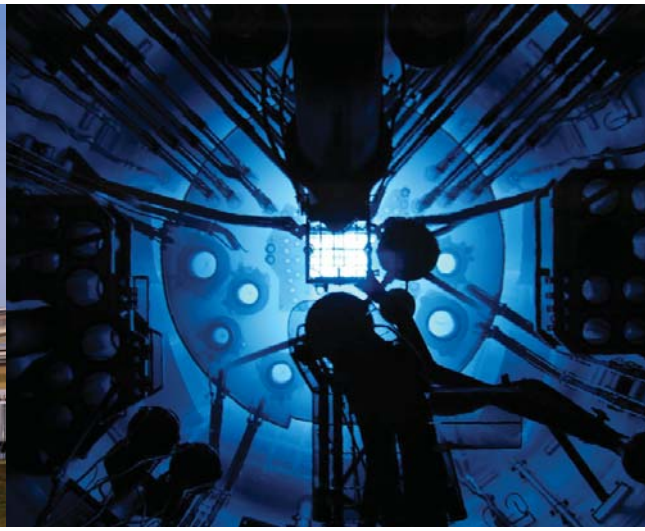
Science education and school tours



Science education and school tours

The Australian Nuclear Science and Technology Organisation (ANSTO) is the home of Australia's nuclear science expertise. This unique expertise is applied to radiopharmaceutical production and research, climate change research, water resource management, materials engineering, neutron scattering and a range of other scientific research disciplines.

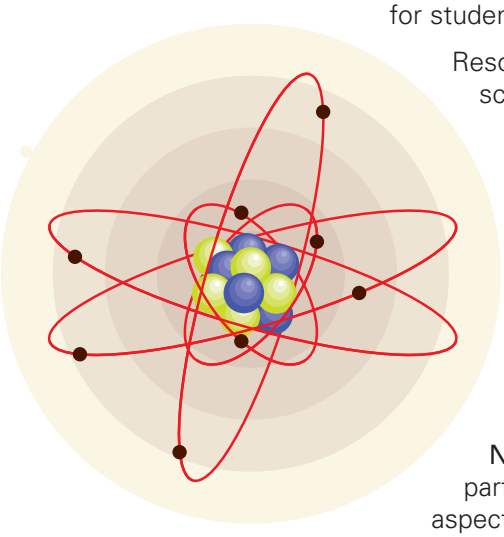
ANSTO is a Federal Government agency and operates Australia's only nuclear reactor OPAL - used for research and isotope production. ANSTO applies nuclear science in a wide range of areas for the benefit of all Australians.



ANSTO encourages the next generation of Australian scientists by equipping teachers and students with educational resources; providing specialist school science tours; facilitating scientist visits to schools in Sydney and around Australia; and offering annual professional development days for teachers at ANSTO's site in southern Sydney.

Science education resources

ANSTO's education team provides free science teaching resources and science information for students.



Resources are available for year 11 and 12 chemistry and physics; year 9 and 10 science and K-6 science and technology.

The resources are based on syllabus outcomes, free to use and may be copied as long as ANSTO is acknowledged as the source.

The resources are a stand alone product but can also be used in conjunction with a specialised school tour of ANSTO's facilities.

Resources

NSW HSC chemistry teacher and student workbook – the workbook covers Nuclear Chemistry and Chemical Monitoring and Management.

NSW HSC physics teacher and student workbook – the workbook is particularly relevant to those studying Quanta to Quarks but also supports certain aspects of Medical Physics study.

Careers in science lesson plans – the lesson plans give students an appreciation of the relevance and importance of scientific knowledge to their future career whether science related or not. The plans also inform students about the types of careers that the study of science subjects can lead to.

K-6 lesson plan: Radiation from the inside out - the K-6 primary school lesson plan provides an opportunity for students to identify and explore the different forms of radioactivity; learn how nuclear energy is transformed into heat, movement and electrical energy for people to use; learn that the Sun is the primary source of energy for the Earth; and the significant role that radioisotopes play in our lives.

Brochures and publications – ANSTO provides a range of brochures and publications on topics such as ionising radiation, radioisotopes and cyclotrons. ANSTO also produces a comprehensive glossary of nuclear terms that is relevant to senior chemistry and physics students.

Scientist profiles – ANSTO profiles a number of ANSTO scientists for use in student assignments.

Velocity – the award winning quarterly e-magazine, Velocity, features breakthrough Australian science from a range of scientific organisations. The e-magazine is written with a sense of humour and appeals to a variety of age groups.

ANSTO's science education resources and a range of informative DVDs can be downloaded at www.ansto.gov.au.

School tours

ANSTO's school tours are designed to meet syllabus outcomes and aim to enhance students' understanding of nuclear science.

Tours are run by qualified Education Officers and are designed to meet teacher and student needs. In addition to general school science tours, ANSTO also offers specialised tours in HSC physics, chemistry, geography, ancient history as well as Earth and environmental sciences.

All tours are provided free of charge and are run Monday to Friday.

Tours begin with a presentation in ANSTO's Visitor Centre which features nuclear related displays and a fully equipped presentation room. Students are then taken on-site to the research reactor building to view live close circuit television of the reactor on the big screen and the Neutron Guide Hall. Following this the group visits other areas on site relating to the subject being studied.

General school science tours run for two and a half hours and specialised HSC tours run for three and a half hours.

Visiting schools are welcome to purchase lunch in the ANSTO café located across from the Visitor Centre. Some notice for larger groups is appreciated.

Tour bookings are essential and can be made by calling 02 9717 3111 or emailing tours@ansto.gov.au.

Schools looking for a full day of activities may also like to visit the ANSTO sponsored Nuclear Matters exhibition at the Powerhouse Museum at 500 Harris Street in Ultimo. The exhibition looks at the role nuclear science plays in our lives. For further information visit www.powerhousemuseum.com.

Presentations to schools

If your school is located in Sydney or the Illawarra region, ANSTO can arrange to have an ANSTO scientist or representative visit your school and give a talk.

Talk topics cover the particular area of expertise of the scientist or representative giving the presentation as well as careers in science generally.

Presentation to schools bookings can be arranged by calling 02 9717 3111 or emailing tours@ansto.gov.au.

ANSTO scientists are also involved in the Scientists in Schools program. Scientists in Schools is a learning experience that allows scientists and schools to work together across Australia in flexible, professional partnerships. Scientists are able to provide valuable ideas and inspiration for teachers and students; in turn, they receive a fresh perspective on science from the contact with the classroom environment. The program is open to research scientists and engineers; post-graduate science and engineering students and people involved in applied sciences, such as doctors, vets, park rangers and so on.

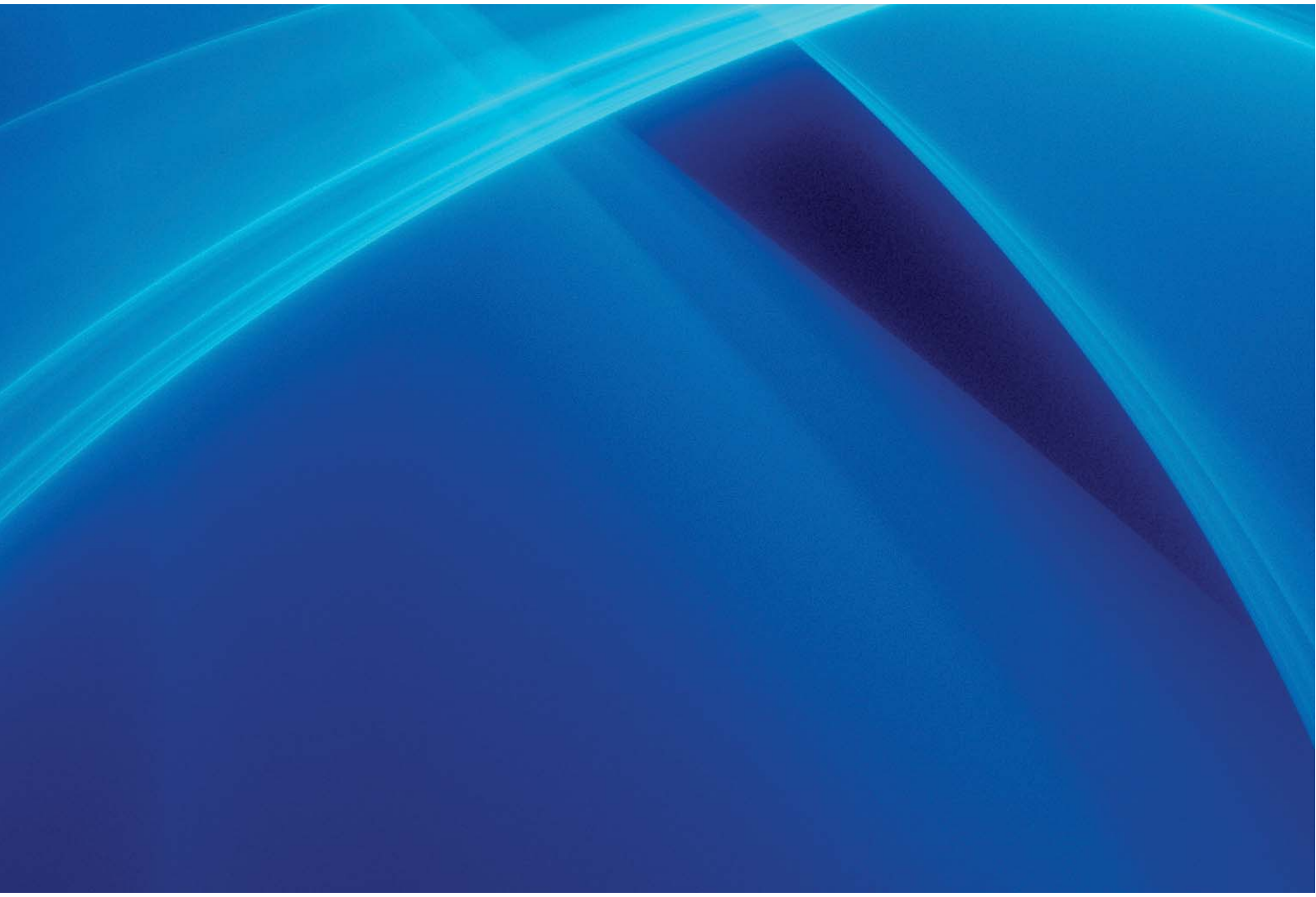
For more information visit www.scientistsinschools.edu.au

Professional development days for teachers

ANSTO holds professional development days for teachers on-site each year. The development days are held for science teachers and cover physics, chemistry, biology as well as earth and environmental sciences. Teachers have an opportunity to directly engage with scientists and nuclear technology.

For future information on the next professional development day for teachers in your subject area call 02 9717 3934.

For further information on ANSTO's science education and school tours, visit www.ansto.gov.au, email enquiries@ansto.gov.au or call 02 9717 3111.



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ANSTO produces regular updates on our science and technology, has available a range of publications and conducts free tours of our site for school groups, community groups and members of the public. For bookings or more information, please contact us.

Printed June 2009