



Supporting and promoting science education internationally

The ICASE Newsletter January 2009

Newsletter of the International Council of Associations for Science Education.

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1. The Role of ICASE

ICASE is a Non-Governmental Organisation, set up by its members [National STAs, Science societies, Science centres, etc] forming an international science education communication network.

The ICASE Role is to:

- 1. extend and enhance the quality of formal and non-formal science and technology education for all, with particular reference to the children and youth of the world.*
- 2. provide and support activities and opportunities that will enhance formal and non-formal science and technology education throughout the world.*
- 3. assist and support all members and other organisations throughout the world which are involved in formal and non-formal science and technology education.*
- 4. establish and maintain an international communication network for member organisations and their members involved in formal and non-formal science and technology education.*
- 5. encourage and support the establishment and development of professional science and technology organisations, especially teacher organisations in all countries.*

Is your national STA, or ICASE member organisation receiving this newsletter? Please help ICASE to ensure e-mail contacts are in order so that this newsletter reaches those who have an interest in promoting science and technology education within the country. If you know of someone who should be receiving this newsletter, but is not, please contact the editor (jack@ut.ee).

For more information and knowledge of past issues of this newsletter see www.icaseonline.net

2. Science Activities

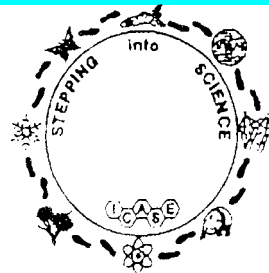
For a number of years ICASE produced a pre-secondary newsletter which often contained one page of science activities (STEP activities which were designed to allow young children (roughly grades 1-4) to take a *step into science* by direct experience). The newsletter has been disbanded as a publication, but the ideas, strongly supporting inquiry teaching, are still valid.

In this section each month ICASE includes a **STEP activity**, plus an activity for lower secondary level (approximately grades 7-9). Take a look !

A) STEP ACTIVITY

Electrostatic attraction

Challenge: Can you pick up the pieces of paper with a strip of plastic?

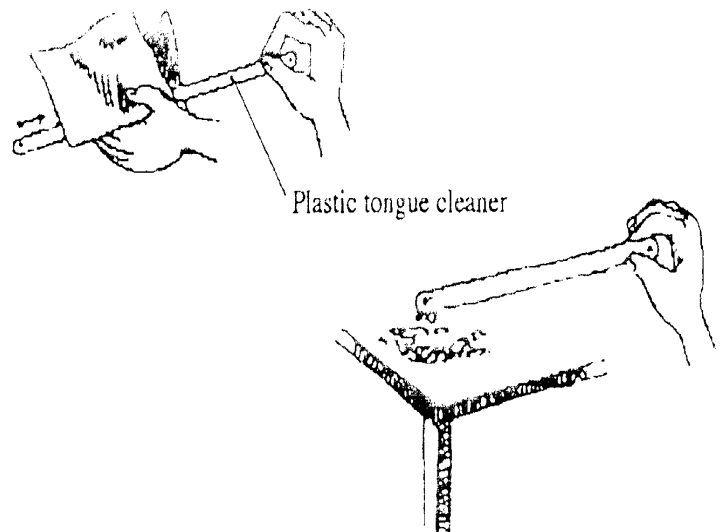


What you need:

- * a plastic tongue cleaner or a plastic tea stirrer or a thin strip of plastic rounded at each end
- * a sheet of paper (notebook size)
- * 10 - 15 small pieces of paper ("confetti" size)

What to do:

1. Take a plastic tongue cleaner and rub it with the sheet of paper at least ten times.
2. Bring the tongue cleaner near to the small bits of paper spread on a table top.
3. Ask the pupils to describe what they observed.
4. Next ask the pupils for their explanation of what they observed.



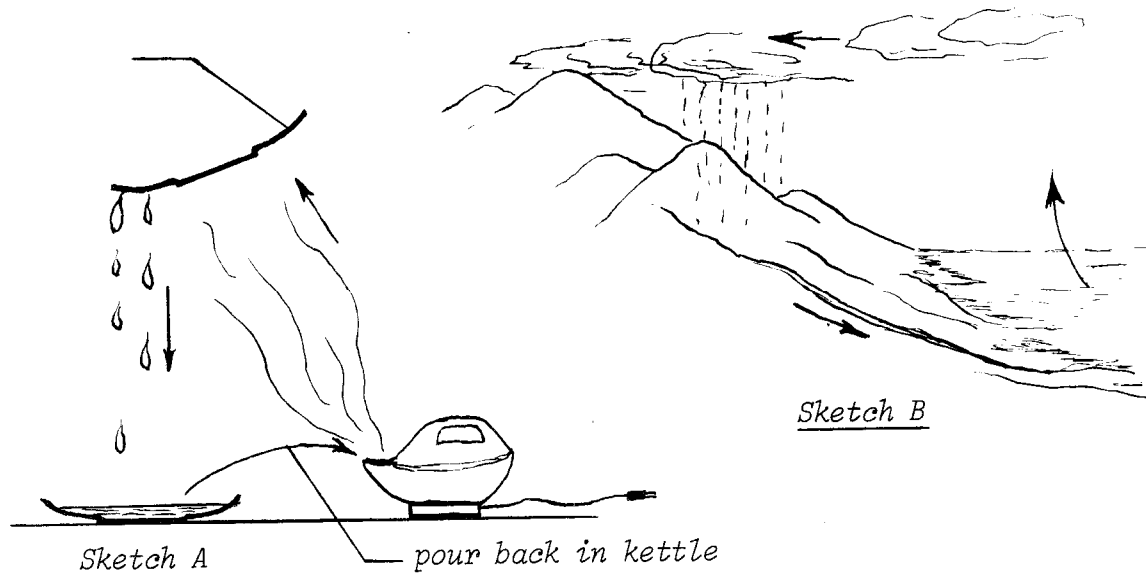
More to do

- * Investigate how the number of paper bits, attracted by the plastic tongue cleaner, change with the number of times it is rubbed with the paper

B) LOWER SECONDARY ACTIVITY

RECYCLING WATER

- Materials:
1. Two shallow trays or regular dinner plates.
 2. Electric water kettle.



Procedure:

1. Heat water in a kettle until boiling.
2. Suspend a tray or plate in the steam or water vapor that comes from the kettle, and place the second plate under the first to catch the water drops (condensate). (Put cold water in the first plate).
3. Pour the water from the second plate back in the kettle to complete the cycle.

Questions:

1. What made the steam, or water vapour turn back into water?
2. Would the steam also condense if the top plate was filled with hot water?
3. What are the needed conditions for clouds to turn into rain?
4. What makes the water evaporate in nature?
5. With what can the pouring back of water from the lower plate into the kettle be compared in the natural water cycle?

Explanation:

The steam or water vapor is produced in the kettle, because the water in the kettle is heated. When the steam hits the cold plate, it condenses back into water. The kettle can be compared to the ocean water being heated by the sun rays. The water vapor accumulates in the higher layers of the atmosphere to form clouds. When these clouds move into colder regions, they saturate the air with water vapor and the cold temperatures turn it into rain—condensation. This may be compared to the steam hitting the cold surface of the first plate. The rain water in nature flows into rivers and these flow back into the ocean (Sketch B).

C) USING EXPERIMENTAL IDEAS IN SCIENCE TEACHING

This newsletter contains two experimental ideas. It is hoped that these will be of interest. But how to use these experiments in teaching ? Teachers need to be free to include experimentation as they feel best, but given below is ICASE thinking in putting forward the experiments in this newsletter. Teachers and science educators are welcome comment.

1. Who does the experiment ?

Clearly these experiments can be undertaken as a teacher demonstration. However, the intention is that the students are involved, either working individually, or more likely, in small groups. The apparatus is kept as simple as possible and can often be brought from home, or made by the students themselves.

Why is student involvement preferred ? We note the old Confucius saying – I hear and I forget; I see and I remember; I do and I understand. The belief is that the more students are engaged, the more they learn. Teacher demonstrations, or large group experiments, limit student involvement and are thus not preferred.

2. Should instructions be given to students ?

The section '*What to do*' and/or '*Procedure*' clearly spell out how to undertake the experiment. But it is not intended that the experiment must be used in this way. By following instructions, a '*cookbook*,' or '*follow a recipe*' situation is created. This highlights the **doing**, but **probably not** the understanding. Where instructions are provided, the student learning can be expected to be the explanation that follows. And the teacher is then focusing on students' explanatory skills. The first experiment is about making a parachute. The explanation about the working of a parachute needs to be kept simple. In the second experiment, the questions have been added to ensure that a '*cookbook*' or '*do-and-forget*' approach is **not intended**. The experiment leads to explaining why the balloon goes into the flask and when in the flask expands.

3. Inquiry learning

Can the experiments be used in an inquiry approach, whereby the students **suggest the purpose and procedure themselves** ? This is very much an ICASE recommended approach. It means students put forward the investigatory question, plus the procedure to follow. It promotes science as the seeking of explanations to questions put forward rather than to a '*wondering why*' approach more appropriate for younger students.

So what would be the investigatory question for the second experiment ?

This is a challenge left for you to consider.

3. Teaching Goals from US National Science Education Standards

Needed Changes in Defining Content as Envisioned in the U.S. National Science Education Standards (NSES)

A series of short articles, written by Robert E. Yager, Professor of Science Education, University of Iowa, USA, summarizing each of the Less/More contrasts in the six NSES chapters.

The NSES Development team decided early that some focus on the total school program was needed. Everyone tended to accept the fact that there are good features to programs – but there is seldom anyone assuring that the whole program is working and in agreement with good teaching, learning, and assessments for all facets characterizing the program.

The listing certainly includes changes that few would argue with while also encouraging more collaboration, more group efforts, and efforts to make teachers more professional. The specific eleven contrasts what generally is the situation (i.e., the Less Emphasis conditions) and what is envisioned as ideal in terms of school science programs (i.e., the More Emphasis conditions). These contrasts are:

Less Emphasis On	More Emphasis On
1. Developing science programs at different grade levels independently	Coordinating the development of the K-12 science program across grade levels
2. Using assessments unrelated to curriculum and teaching	Aligning curriculum, teaching, and assessment
3. Maintaining current resource allocations for books	Allocating resources necessary for hands-on inquiry teaching
4. Textbook- and lecture-driven curriculum	Curriculum that supports the Standards, and includes a variety of components, such as emphasizing inquiry and field trips
5. Broad coverage of unconnected factual information	Curriculum that includes natural phenomena and science-related social issues encountered in everyday life
6. Treating science as a subject isolated from other school subjects	Connecting science to other school subjects, such as mathematics and social studies
7. Science learning opportunities that favor one group of students	Providing challenging opportunities for all students to learn science
8. Limiting hiring decisions to the administration	Involving successful teachers of science in the hiring process
9. Maintaining the isolation of teachers	Treating teachers as professionals whose work requires opportunities for continual learning and networking
10. Supporting competition	Promoting collegiality among teachers as a team to improve the school
11. Teachers as followers	Teachers as decision makers (NRC, 1996, p. 224)

4. SAFE SCI Be Protected

Article provided by Dr. Ken Roy – Chairman of the ICASE Standing Committee on Safety in Science Education. He is also Director of Environmental Health & Safety, Glastonbury (CT), an authorized OSHA instructor and science safety consultant. Email: Royk@glastonburyus.org

SAFE SCIENCE: Be Protected!

By Dr. Kenneth Russell Roy

The MRSA Panic: More Work To Be Done By Science Education?

Part 2 (Part 1 was published in the December 2008 issue)

I. Advice on Prevention In School

The Centers for Disease Control and Prevention (CDC) recommend the following advice for prevention strategies:

Practice good hygiene:

1. Keep hands clean by washing thoroughly with soap and water or using an alcohol-based hand sanitizer. This is especially applicable prior to and after eating.
2. Keep cuts and scrapes clean and covered with a bandage until healed.
3. Avoid contact with other people's wounds or bandages.
4. Avoid sharing personal items such as towels or razors.

If you or a student has MRSA, the following protocols are advised by the CDC.

You can prevent spreading staph or MRSA skin infections to others by following these steps:

1. **Cover your wound.** Keep wounds that are draining or have pus covered with clean, dry bandages. Follow your healthcare provider's instructions on proper care of the wound. Pus from infected wounds can contain staph and MRSA, so keeping the infection covered will help prevent the spread to others. Bandages or tape can be discarded with the regular trash.
2. **Clean your hands.** You and others in close contact should wash their hands frequently with soap and warm water or use an alcohol-based hand sanitizer, especially after changing the bandage or touching the infected wound.
3. **Do not share personal items.** Avoid sharing personal items such as towels, washcloths, razors, clothing, or uniforms that may have had contact with the infected wound or bandage. Wash sheets, towels, and clothes that become soiled with water and laundry detergent. Drying clothes in a hot dryer, rather than air-drying, also helps kill bacteria in clothes.
4. **Talk to your doctor.** Tell any healthcare providers who treat you that you have or had a staph or MRSA skin infection.

Teachers need to be proactive and police their classroom. If students are found with exposed open wounds or pustules, they should be sent to the school's health care provider for attention.

II. Are MRSA Type Infections Treatable?

First of all, more people died of MRSA in 2005 than AIDS according to statistics. Is it dangerous – absolutely! However, according to medical records and research, most of those victims were immune compromised with a disorder such as AIDS. The point is, average students in the classroom are not at high risk.

The other news is that most MRSA infections can still be treated successfully with antibiotics. Like all antibiotic usage, the full dose should be taken and good hygiene practiced! Treatment may involve draining of the abscess or boil by a healthcare provider.

III. Science Lessons to Be Learned!

The causes contributing to bacteria mutations, clones and survival via antibiotic resistance unfortunately is the result of human activity! The leading three causes include:

1. Unnecessary and overuse of antibiotics - Years of excessive and unnecessary antibiotic use such as prescriptions for colds, flu and viral infections.
2. Use of Antibiotic in Food and Water – For many years, the food industry has used antibiotics for cattle, chickens and pigs in the United States. These antibiotics ultimately find their way into municipal water supply systems via groundwater runoff. Interestingly enough, routine feeding of antibiotics to animals has been banned in the European Union and other countries.
3. Germ Mutation – With the use of antibiotics, some bacteria survive the dose and become resistant. They learn to resist additional antibiotics very quickly, due to a high mutation rate.

IV. Final Word

MRSA is serious but can be addressed easily simply using the old standby – wash hands with soap and water. Equally important for the science teacher is getting the correct word out in the public arena. Most bacteria are not harmful and in fact beneficial or even essential. The overkill syndrome is only doing two things –

1. Helping to foster drug resistant bacteria cloning.
2. Making drug manufacturers and the home cleaning product industry richer!

Be part of the solution and work with students and parents by fostering good science.

5. Workshop report

Promoting Innovative Science Teaching Strategies at the Research Institute for Science Education (RISE), Guangxi Normal University.

Prof Luo Xing-Kai, Director RISE, Dr. Ong Eng-Tek, Sultan Idris University of Education, Malaysia & Dr. Janchai Yingprayoon, Immediate past President, ICASE

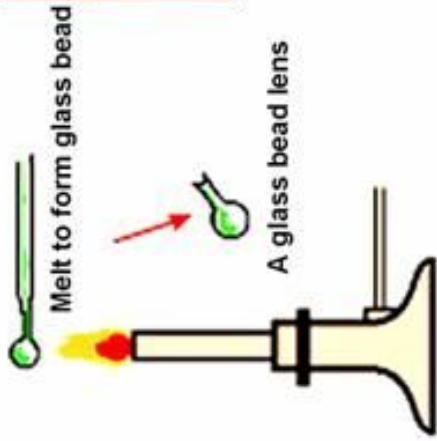
The Research Institute for Science Education (RISE) at the Guangxi Normal University in Guilin, China organised a series of workshop for its faculty members, postgraduate and undergraduate students, as well as school science teachers on Innovative Science Teaching Strategies from the 20-29 December 2008. This workshop was conducted in a concerted fashion by Dr. Janchai Yingprayoon, Dr. Perchernchai, and Dr Suwan from Thailand, Dr. Ong Eng Tek from Malaysia, and Mr. Cyril King from the South Eastern Education and Library Board (SEELB), Northern Ireland, UK.



The main objective of the workshop was to familiarise participants with some research-based and research-validated innovative teaching strategies which could help students make sense of science concepts in a meaningful and interesting manner. RISE is proud of its practical-based laboratory activities which not only allow students and teachers to be aware of many interesting hands-on activities for, but also are used to mass produce a number of prototypes, which are subsequently being distributed to pilot schools across China. Through this workshop, participants learned how to use the exhibits in a constructivist manner, such as employing the PEO (Predict-Observe-Explain) strategy. Participants experienced some thought-provoking activities which aimed to help them make sense of what was expected from a creative science teacher. In a nutshell, where a science teacher is creative and able to inculcate creativity amongst students, they are well on their way to able to arouse students' curiosity, assist students in making careful observation, make connections where none existed before, and to be able to guide students to learn in a 'fun' atmosphere.

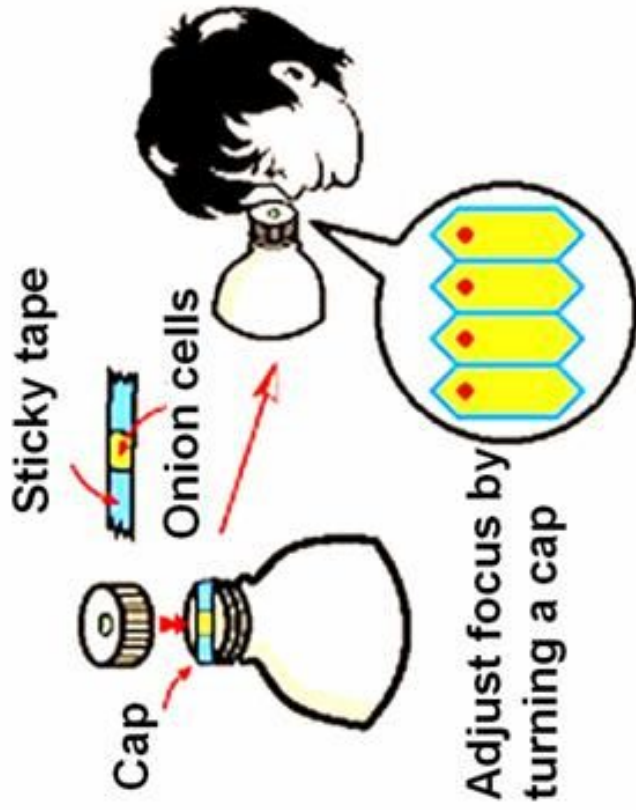
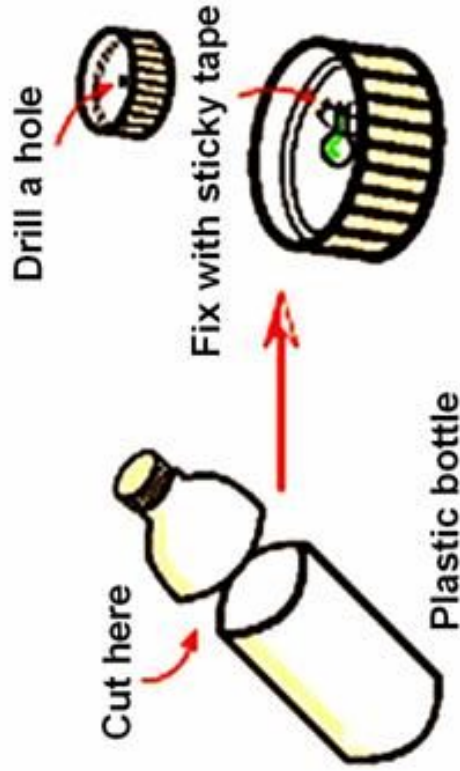
In addition to 'hands-on', 'minds-on' and 'hearts-on' workshops with fun-filled experimentation and simulation of constructivist-based science teaching strategies, the participants were challenged to innovate and adapt some of the activities to suit their respective local contexts.

This issue of the newsletter introduces readers to a simple, pocket microscope with simple instruction on how this can be constructed. Subsequent issues of the newsletter will provide more on research-based and research-validated innovative teaching strategies linked to 'hands-on', 'minds-on' and 'hearts-on' learning.



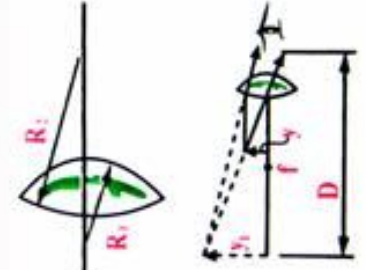
POWERFUL POCKET MICROSCOPE

By Dr. Janchai Yingprayoon, janchai@foxinfo.co.th



f = Focal length
 m = Magnification
 n = refractive index
 $\frac{1}{f} = (n - 1) \left(\frac{1}{R_1} + \frac{1}{R_2} \right)$
 $m = \frac{D}{f}$ if $R_1 = R_2 = R$
 $D = 25 \text{ (cm.)}$
 $n = 1.5$
 $m = \frac{25}{R}$ if $R = 0.1 \text{ (cm.)}$, $m = 250$

Physics Principle



6. Calendar of Events

2nd ASCC Conference

On **18-21 February 2009**, the 2nd African Science Communications Conference (ASCC) will convene in Gauteng, South Africa. The theme of the 2nd ASCC will be “Shaping Africa's Future: Science Communication's contribution to Science, Technology and Innovation, and the development of democracy in Africa.” With an emphasis on integrating academic research with policy-decision making and industry, the meeting will address important issues in the development and advancement of Science Communication.

Anchored by a highly successful 1st ASCC in 2006, thematic sessions will address:

- The translation of research for:
 - policy,
 - economically viable products or initiatives,
 - the facilitation of trans- and inter-disciplinary research; and
 - an informed society through the mass media.
- Science, engineering and technology human skills development, education and learning;
- Science and the media
- International benchmark activities in Science Communication;
- Research and development in Science Communication.



Celebrate the Year of Science in New Orleans

Join more than 10,000 science educators in New Orleans for the most prominent and comprehensive NSTA National Conference on Science Education, March 19-22, 2009. This event kicks off with two exceptional speakers from The Planetary Society. Neil deGrasse Tyson, is an astrophysicist, author, and PBS host, and Bill Nye the Science Guy, a comedian, television host, science educator and mechanical engineer. And that is just the beginning of a full roster of experts in professional development leading workshops, seminars, institutes and sessions to stimulate your imagination, build your skills, enhance your teaching strategies and nurture your passion.

Check out some of our program titles:

- Observe, Question, and Explore Our Solar System
- Exemplary Science Programs-Best Practices
- What We Know About Learning Science in Informal Environments
- A Sustainable Collaboration to Improve Content, Assessment, Reflection, and Efficacy of Science Teachers
- The Murder of Kirsten Knight-Jensen: Using Chemistry to Solve the Crime
- Teaching Core Physics Concepts Through the Lens of Seismology
- A Demo a Week Makes Science Class the Peak

Don't forget day long programs, the Exhibit Hall, graduate credit for program attendance and networking. It's all there in New Orleans with field trips that tap into this city's history and local charm.

Register for the NSTA Annual Conference by January 9, 2009 to save the most.
Visit <http://www.nsta.org/> for more information.

FISER'09 May 22-24 2009, Famagusta, Northern Cyprus

A forthcoming international conference on Science and Mathematics education research; *Frontiers in Science Education Research 2009* (FISER'09) will be held May 22-24 2009. The official website of FISER'09 could be accessed via <http://fiser.emu.edu.tr>.

The conference is organised by the Eastern Mediterranean University, Faculty of Arts and Sciences. Further information can be obtained from Mehmet Garip, Ph.D. Chair, Organising Committee (fiser@emu.edu.tr)

ICASE African Regional Symposium

24-28 May 2009, Abuja, Nigeria

This African regional symposium is being organised under the auspices of STAN (Science Teacher Association of Nigeria)

The theme of the conference is - Meeting the Challenges of Sustainable Development in Africa through Science and Technology Education.

The Venue is the Abuja Sheraton Hotel and Towers

The Conference Conveners are Dr. Ben B. Akpan, ICASE African Representative and Executive Director, Science Teachers Association of Nigeria

Email: ben.akpan@stan.org.ng and Professor Peter Okebukola, Faculty of Education, Lagos State University, Ojo, Lagos, Nigeria. Email: peter@okebukola.com

For more details please visit the website <http://www.stan.org.ng/ICASE-2009>

See also pages 9-11 this newsletter

CONASTA 58 – The Conference of the Australian Science Teachers Association 4-7 July 2009 at the Hotel Grand Chancellor in Launceston, Tasmania, Australia

The theme for the conference - A Bridge to the Future. Within the theme will be highlighted

Science – future problem solver

Educational change and the national curriculum

Science in a rural context

Science and literacy

You are invited too submit an overview of a presentation for the CONASTA 58 conference. Presentation summaries are due by Friday 20 February 2009. Abstracts can be submitted through the website via the Speaker's Zone (www.cdesign.com.au/conasta58).

Registration fees Full registration before April 2009 (member A\$450; non member A\$650). After April (member A\$550, non member A\$750). More details on the website.

Contact details –

For all enquiries contact - Conference Design Pty Ltd, 228 Liverpool Street, Hobart, Tasmania 7000.

E-mail Info@cdesign.com. Tel (international) +61 3 6231 2999

International Congress of Science Education, 10 years of the Journal of Science Education (Cartagena, Colombia, 15- 18 July 2009). <http://www.colciencias.gov.co/rec/cong>

The main aim on this Congress is to discuss international experience in science education. The venue in Latin America presents a special opportunity for our community, and your participation would create a high interest and impact for this international event.

The Journal of Science Education, JSE, has an international character and publishes articles about the science education (Physics, Chemistry, Biology, Mathematics, etc.) for the university and secondary or high school levels. Authors from 53 countries have published more than 320 full peer evaluated articles in previous issues, various authors are from your country. Our authors are: from Europe (47%), America (45%), Asia (7%), Africa (1%). About 46% of published works have been about research in science education.

We invite you to take part in this International Congress.. We are very interesting in if you can organize a symposium or workshop about one of the several topics to be talked about at the congress.

The two important dates:

*Preliminary registration: 15 December 2008

*Sending the abstracts: 10 February 2009

ICASE World Conference, 28th June – 2nd July, 2010, Tartu, Estonia

The 3rd ICASE World Science and Technology Education Conference will be held at the University of Tartu, the oldest University in Estonia dating back to 1632. This Conference will follow on from the previous World Conferences held in Malaysia, 2003 and Australia, 2007 by bringing together policy makers, curriculum developers, scientists, science teacher educators, science teacher association personnel and of course science teachers to consider research developments, policy implications and innovative practices in the field of science and technology education. Estonia has a strong tradition in science, stemming from its former USSR days and today is a widely recognised centre for gene technology.

Conference theme - **Innovation in science and technology education: research, policy, practice.** The Call for Papers will be announced from March 2009 for each of the sub-themes – *research; policy and practice.*

Introducing the conference title

Innovation and Education are heavily interlinked. As countries move along the path of development (and really this is their destiny; unknown is the pace at which this takes place), education is a key factor in promoting meaningful progress. Whether this factor is identified with values such as equity, human rights, tolerance, or preparations for a knowledge-based society, education has been recognised as an essential component in a country's development.

But as movement within a country takes place along the development path, so education itself needs to develop; it needs to be in tune with the moving platform. For this, not only is innovation a hallmark of development, but it is a key ingredient in the required developments in education. Such innovation needs to have a **research underpinning**, guided by **policy makers** towards intentions and introduced at the **level of practice** by the implementation attributes within the

country (unfortunately under a heavy threat of distortion by the assessment practices in many countries, unless these are also an essential part of the innovation).

Science and technology education has a crucial role in this innovation. Not only is it involved in preparing innovative citizens within society, but also as part of the education provision within countries, it is at the forefront of educational innovations, undertaking this from within a science frame.

Clearly innovation within science and technology education has a role to play in *changing society values*, embedded within concepts such as *sustainable development, self-reliance, technological progress and improving the quality of life*. It has a role in utilising its conceptual science base for the *betterment of society* and in helping to drive the innovations needs for a society's development, whether this is in the workplace, the home or in the interactions between members of the society. **Such innovation is a huge challenge for science and technology education**, as it heavily focuses on the breadth of educational innovation and not simply on information dissemination, of innovation in the sciences ideas themselves. Science and technology education is preparing individuals for innovation and to do this *an innovative science and technology education* is needed. But what are these innovations for science and technology education – whether these are in the area of research, policy or practice. **These are the challenges addressed by this conference!**

The first and perhaps foremost challenge comes with the *exponential growth in information*. Science education cannot keep up. It must not attempt to. Science education needs innovative ways for students (and adults) to *utilise information*, together with its explanations and applications. *Science education must move away from information transmission*. A further challenge comes in gaining insights into the *nature of science* (and for this conference, the word science is confined to phenomena in the natural world). What is it that students should understand by the term 'science'? How do we *prepare policy makers* to recognise that science is tentative and not the truth, it is subjective in its interpretations and culturally embedded in its values?

Science education by its very nature is education. What does this mean for the educational attributes embedded in science education? Is science education about involving some, but discarding other, education goals? In what ways can/should science and technology education enhance innovation – in terms of intentions, in term of implementation or in considerations of that which is to be achieved? What are science education innovations with respect to the innovation potential of the individual as a person, or as a member of the society?

An inevitable challenge is the manner in which *teachers are to keep place with innovation, to embrace innovation* and to be an integral part of the innovation process. It is hard to conceive science and technology education without the teacher and hence the science and technology teachers need to be at the forefront of innovation. The innovation is required to meet the needs of society, at the individual level, or the level of interactions within or between societies. And science and technology teachers need to innovate themselves, *unaware of future innovations in society*, the pace of developments, or *the future needs of citizens*. How is this possible? This conference is intended as a platform to address such challenges.

For further information please contact Professor Miia Rannikmae (ICASE secretary) miia@ut.ee

*A Bridge to
the Future*

CONASTA 58

Invitation to Participate

The CONASTA 58 Convenor and Organising Committee are pleased to invite your participation in the 2009 conference of the Australian Science Teachers Association. CONASTA 58 offers excellent targeted professional learning opportunities for Science teachers, Science educators, preservice teachers and the scientific community.

Between 350 and 500 delegates from around Australia as well as some international delegates will gather in Launceston for what will be an exciting CONASTA 58. The Conference theme is 'Science Education: A bridge to the future', and the program includes keynote speakers, seminars, workshops, field trips, highlighted sessions, trade displays, happy hours and social functions as well as post-conference excursions.

We look forward to your participation.

Who should attend

- Primary Teachers
- Secondary Teachers
- Lab Technicians
- Tertiary Science Educators
- Undergraduate Science Teachers
- Pre-Service Teachers

Hosts

CONASTA 58 is organised by The Science Teachers Association of Tasmania on behalf of the Australian Science Teachers Association



Contact details

For all enquiries please contact the team at Conference Design for assistance

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2 www.cdesign.com.au/conasta58



Launceston, Tasmania

Launceston, Tasmania's second oldest and second largest city, sits at the junction of the North and South Esk rivers. The city is compact and pretty with colourful Victorian and Edwardian homes lining the hillsides along the river banks.

The Cataract Gorge Reserve, which includes the first Basin and the Cliff Grounds, form extensive recreation spots just 15 minutes walk from the heart of Launceston. The reserve is ideal for walking, viewing historic gardens and exotic plants or simply relaxing in the restaurant or tearooms.

Launceston is a good base for exploring the vineyards of the Tamar Valley and from Launceston you can also explore national parks such as Narawntapu (known for wildlife spotting) and Cradle Mountain-Lake St Clair, or the historic colonial villages of Evandale and Longford.

It is also worth spending time in the Queen Victoria Museum and Art Gallery, and Launceston's first-class arts and crafts outlets, including the Design Centre and the Ritchies Mill complex.

Theme

The main theme is Science Education: A Bridge to the Future. Within this theme we will highlight:

- Science – future problem solver
- Educational change and the national curriculum
- Science in a rural context
- Science and literacy

Call for Presentations

You are invited to submit an overview of a presentation for the CONASTA 58 Conference. Presentation summaries are due by Friday 20 February 2009. Abstracts can be submitted through the website via the Speaker's Zone www.cdesign.com.au/conasta58

Authors are invited to submit abstracts for:

- Seminars (30-60 minutes, including question time)
- Workshops (75 minutes or 160 minutes)
- Poster displays (1-metre wide x 2-metres high board)

The 200-word summary should outline the aims and content of the presentation. All presentation summaries are to be submitted electronically via the Conference website's Speakers' Zone. You will be asked to indicate your target audience: early childhood, primary, secondary, pre-tertiary (11–12), all (K–12), or lab technicians. Whilst you will be asked to indicate your preferred presentation format the Conference Committee may request an alternative format be considered.

Visit the website for full details regarding the submission of presentation.

Venue

The Hotel Grand Chancellor

32 Cameron Street Launceston

Hotel Grand Chancellor Launceston is the city's premier 4½ star hotel. Hotel Grand Chancellor Launceston is only a short stroll from the main central business district, shopping mall in Brisbane Street and Yorktown Square. It is the ideal base from which to explore the beauty and variety of the north east – the handsome Georgian architecture of the municipal buildings of Launceston, the heritage homesteads, the serenity of a cruise up the Cataract Gorge, or driving the beautiful Tamar Valley with its numerous vineyards including Tamar Ridge, Iron Pot Bay, Holm Oak, Rosevears Estate, St Matthias and Providence Vineyards.

Important Dates

Abstracts due 20 Feb 2009
Provisional program available Mar 2009

Abstract submission opens OPEN NOW
Abstract acceptance emailed 6 Mar 2009
Early-bird registration closes 24 Apr 2009

www.cdesign.com.au/conasta58

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7. ICASE Executive Committee 2008-2011

Based on the ICASE constitution, the ICASE Management committee as well as Regional Representatives are elected by member organisations. These elected members, in turn, nominate chairs of relevant standing committees. Together these persons form the ICASE Executive Committee and are the persons who make decisions on behalf of the ICASE Governing Body. The ICASE Governing Body is the **ICASE member organisations**.

The Executive Committee (the decision making body working for the Governing Body)

President

Prof Jack Holbrook

E-mail jack@ut.ee

Past President

Dr Janchai Yingprayoon

E-mail janchai@loxinfor.co.th

Secretary

Prof Miia Rannikmae

E-mail miia@ut.ee

Treasurer

Adrian Fenton

E-mail Adrianfentonicase@yahoo.co.uk

Regional Representative for Africa

Dr Ben Akpan

Executive Director of STAN, Nigeria

E-mail: ben.akpan@stan.org.ng

(Member Organisation – Science Teachers Association of Nigeria)

Regional Representative for Asia

Dr Azian Abdullah

Director, RECSAM, Malaysia

E-mail: azian@recsam.edu.my

(Member Organisation – RECSAM)

Regional Representative for Australia/Pacific

Dr Beverley Cooper

E-mail: bcooper@waikato.ac.nz

(Member Organisation – NZASE, New Zealand)

Regional Representative for Europe

Dr Declan Kennedy

E-mail: d.kennedy@ucc.ie

(Member Organisation – Irish Science Teachers Association (ISTA))

Regional Representative for Latin America

Gabriela Inigo

E-mail: gabrela_inigo@hotmail.com

(Member Organisation – Albert Einstein Club, Mar del Plata, Argentina)

Regional Representative for North America

Prof Norman Lederman

E-mail: ledermann@iit.edu

(Member Organisation - Council of Elementary Science International (CESI))

Chairs of Standing Committees

Safety in Science Education

Dr Ken Roy

E-mail: Royk@glastonburyus.org

World Conference

Dr Robin Groves

E-mail grovesr@ozemail.com.au