

A Pinch of Salt!

The Newsletter of the Salters' Institute

Salters' Chemistry Camps 2004

The 2004 Salters' Chemistry Camps are just around the corner, so have your labcoats and safety specs at the ready! **Eight Camps** are scheduled to take place at **Universities throughout the UK**, and each one will house, feed and entertain **50** students keen to learn more about Chemistry. There are new and exciting Chemistry experiments to be tried, balls to bowl, rocks to climb and Chemical companies to be explored.

A Nomination Form for the Camps is enclosed, along with a copy of our Publicity Leaflet
The Nomination Form is also available online at www.chemistrycamps.co.uk

Institute Prizegiving 2003

The Salters' Institute Annual Prizegiving Ceremony was held on Thursday 4 December at Salters' Hall. Over **200** people attended and a great day was had by all.

For information on all our Prizewinners **see page 2 for full details.**

Other Salters' Institute Events planned for **2004** include: -

- ◆ Salters' Teachers' Conference
Details on page 6
- ◆ Sharing Good Practice Seminar
Details on page 6
- ◆ CEG Seminar
Autumn 2004, further details to follow

Camp Dates 2004

St Andrews	15 – 18 June
Bristol	29 June – 2 July
Birmingham	6 – 9 July
Sussex	6 – 9 July
Swansea	6 – 9 July
Manchester	3 – 6 August
Ulster	10 – 13 August
York	17 – 20 August

**A Salters' Chemistry Camp
Nomination Form is enclosed
with this issue**

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THE SALTERS' INSTITUTE

Institute Prizewinners

Congratulations to all our Winners, Medallists and Finalists!

Salters' Chemistry Teaching Awards

2003 Finalists

Mrs Liliana Bannon	Orley Farm School, Harrow	Winner
Mrs Anubha Bhunjun	Rokeby School, Stratford	Winner
Mr Adrian Guy	The Maynard School, Exeter	Winner
Dr Douglas Robertson	Hawick High School, Hawick	Winner
Mr Timothy Reed	Rednock School, Dursley	Finalist
Dr McDonald Smith	Prior's Field School, Godalming	Finalist

Salters' National Awards for Science Technicians

2003 Finalists

Mr Colin Doyle	Fleming Fulton Special School, Belfast	Winner
Mr David Goddard	St Mary's College, Londonderry	Winner
Mr Malcolm Littlejohn	Banchory Academy, Aberdeenshire	Winner
Mr Tony Smith	Crofton School, London	Winner
Ms Sharon Bailey	Wilnecote High School, Tamworth	Finalist
Ms Carolanne Cappie	St George's School for Girls, Edinburgh	Finalist
Miss Lorna Gibbs	Ferndown Upper School, Dorset	Finalist
Mr William Warwick	Ballymena Academy, Co. Antrim	Finalist

Salters' Graduate Prizes

2003 Prizewinners

Miss Catherine Blake	The University of Edinburgh	Chemistry
Mr Alasdair Campbell	The University of Cambridge	Chemical Engineering
Mr Stefan Egan	The University of Strathclyde	Chemical Engineering
Mr David Hughes	The University of Oxford	Chemical Engineering
Miss Lisa Makein	The University of Strathclyde	Chemistry
Mr Ruaraidh McIntosh	Heriot Watt University	Chemistry
Mr Alistair McKerrow	The University of Newcastle	Chemical Engineering
Mr Stephen Thomas	The University of Wales, Cardiff	Chemistry
Miss Cara Tredget	The University of Bristol	Chemistry
Mr Richard Wilson	Loughborough University	Chemical Engineering

Salters' Jerwood Prize

2003 Finalists

Dr Mark Bunnage	Pfizer	Winner
Mr Brian Fox	AstraZeneca	Medallist
Dr David Roberts	GlaxoSmithKline	Medallist
Mr Craig Acton	Shell Nederland Chemie BV	Finalist
Dr Richard Armer	Oxagen Ltd	Finalist
Dr Neil Stainton	Smith & Nephew Plc	Finalist

Salters' City & Guilds Prizes

2003 Prizewinners

Mr Stephen Randall	Dow Corning	Part 3
Mr Gary Sanderson	BASF plc	Part 2
Mr Malcolm Hughes	Johnson Matthey plc	Part 1

Institute News

Salters Advanced Chemistry Prizes

2003 Prizewinners

Miss Sophie Atkinson	The School of St Helen and St Katherine, Abingdon	1st Equal
Mr Alistair Sloan	Glenalmond College, Perth	1st Equal
Miss Rachel Pearson	Guildford High School for Girls	3rd
Miss Rachel Cottrell	Wycombe High School	4th Equal
Mr Craig Nicholson	Franklin College, Grimsby	4th Equal

Salters Horners Advanced Physics Prizes

2003 Prizewinners

Mr Alexander Shannon	The King's School Canterbury	1st
Mr Clive Harrow	City of London Freemen's School	2nd
Mr Christopher Whitcombe	Howard of Effingham School, Leatherhead	3rd

SHAP Teachers' Prize

2003 Prizewinners

Mr Nick Fisher	Rugby School, The Science Schools
Mr Chris Gidzewicz	Norton Hill School, Bath
Mr Neil Jaques	Bancroft's School, Essex

SHAP Student Project Prizes

2003 Prizewinners

Mr Robert Piggott	King Edward VI Community College, Devon	1st
Mr Robert Gilchrist	Ralph Allen School, Bath	2nd Equal
Miss Terry-Ann Jennett	Hackney Community College, London	2nd Equal

SALTERS' NATIONAL AWARDS FOR SCIENCE TECHNICIANS

Four Awards of £250

The Awards are open to science technicians in schools and colleges catering for students to age 18, and who have a total of 5 or more years experience (either full-time or part-time).

Salters' National Awards for Science Technicians are in association with:

The Association for Science Education

The Institute of Biology

The Institute of Physics

The Royal Society

The Royal Society of Chemistry

SALTERS' AWARDS FOR CHEMISTRY TEACHING

**Four Awards of £3,000
(£1,500 for the candidate and £1,500
for the school science department)**

The Awards are open to teachers with between two and seven years teaching experience, irrelevant of age, and who work in secondary schools or sixth form colleges in the UK.

We are looking for:

- Teachers with enthusiasm who share with young people their own excitement for chemistry
- Teachers whose work in the classroom stimulates and challenges pupils throughout the ability range to achieve their full potential
- Teachers who can show the evidence of their teaching excellence through improving examination results

The closing date for nominations for both Awards is **Saturday 1 May 2004**
Nomination forms / further information are available on: www.saltersinstitute.co.uk
Please see enclosed Publicity Leaflets

Camps 2004**SALTERS'**
Chemistry
Camps*My Experience of a Salters' Chemistry Camp*

"Chemistry Camp" – The first thing that came to my mind was tedious and boring, but what I experienced at the Salters' Camp at Ulster, was actually extraordinary and intriguing, and led to the most interesting five days of my life.

The Camp was filled with amazing practical activities, such as 'Murder Most Horrid', named after a forensic investigation, and 'Chemical Clock Music', named from chemical timing against the radio. We also learned how to create slime, putty and conducting polymers, and 'The Real Thing' was all about calculating how much caffeine is in coke. Last, but definitely not least, the 'Bubbles' activity – we learned how to make antibubbles. Most people are sceptical that they even exist. My favourite out of the five was the forensics.

We also had time for social activities, such as ten pin bowling, barbeques, sports night and our own free time as well. So it was not all hard work. We went on trips, such as a site visit to Du Pont Chemical Industries and a trip to the Giants Causeway which was spectacular and exquisite.

During the week I made many friends that I would never have made. I developed more confidence than before and I have become very interested in Chemistry which is an advantage. It also added an alternative to my career prospects which I am very pleased about.

It was a very enjoyable week, I would mark it 10 out of 10. Undeniably extra smart and sociable. It was one amazing experience, and I would like to thank my Science Teacher for introducing me to the Salters, and the Salters for making it happen. I would suggest that other people should have a go at it!!!

*by Tanya Adamson – Mount Mercy College, Cork, Ireland
(The University of Ulster, Coleraine Camp 2003)*

"I had my first chemistry lesson at school yesterday since I have been back from the camp and I felt somewhat more able than all my friends, which is always a bonus. I feel very privileged that I had the chance to go to the camp and regret that more fifteen-year-olds like me don't have the opportunity to have one of the limited spaces. Thank you for a wonderful week."

*Ellie Hauf - Tunbridge Wells Grammar School
(The University of Bristol Camp 2003)*

"It was an incredibly informative and enjoyable week, and has definitely increased my interest in chemistry and the sciences as a whole. Please excuse the (bad) pun but I was in my element!"

*Timothy Rudd - Milford Haven Comprehensive School
(The University of Wales, Swansea Camp 2003)*

Who is Eligible?

The Salters' Chemistry Camps are open to all secondary schools in the **UK** and **Ireland** and teachers can nominate **ONE** Year 10 student (S3 in Scotland, Year 11 in Northern Ireland and Year 3 in the Republic of Ireland) from their school. **Fifty** student places are available at each Camp and where possible 25 boys and 25 girls will be selected for each one. We are looking for students who are enthusiastic about chemistry, whether they have already decided to continue studying the subject post 16 or not.

Cost

There will be a charge of £50 for each student attending a Camp and the student, or their school, will be expected to cover travel expenses.

The closing date for return of nomination forms is SUNDAY 15 FEBRUARY 2004
Please see enclosed Publicity Leaflet

Festivals 2004

SALTERS'
Festivals
of Chemistry

Have you sent in your Entry Form for the Festivals 2004?

We have already received over **500** entries for the **2004 Salters' Festivals of Chemistry** but there are still a few places available at the following Universities:-

University of Aberdeen	Wednesday 31 March
Aston University	Wednesday 26 May
University of Bradford	Wednesday 24 March
University of Brighton	Wednesday 31 March
University College Cork	Wednesday 5 May
Coventry University	Wednesday 5 May
University of Durham (Stockton Campus)	Wednesday 24 March
University of East Anglia, Norwich	Wednesday 28 April
University of Glasgow	<i>*Date to be confirmed</i>
Glasgow Caledonian University	<i>*Date to be confirmed</i>
University of Keele	Friday 23 April
University of Leeds	**2nd Festival to be confirmed
University of Leicester	Thursday 25 March
University of Limerick	Saturday 15 May
Liverpool John Moores University	Tuesday 18 May
London South Bank University	Wednesday 19 May
University of Manchester	**2nd Festival to be confirmed
UMIST, Manchester	Wednesday 9 June
University of Newcastle	Tuesday 30 March
University of Plymouth	Wednesday 17 March
University of Reading	**2nd Festival to be confirmed
Institute of Technology, Tallaght	Saturday 15 May
University of Ulster at Coleraine	Tuesday 25 May
University of Wales, Aberystwyth	Wednesday 31 March
University of Wales, Bangor	Tuesday 30 March
University of Wales, Swansea	Friday 26 March

**** 1st Festival** is full but it may be possible to arrange a **2nd Festival** if there are sufficient entries.

E-mail your entry via our web-site
www.festivalsofchemistry.co.uk

Staffing

On Friday 16 January after four very busy years with the Salters' Institute, Mrs Maureen Westmarland is retiring as our Festivals Administrator.

In those four years Maureen has seen the Festivals grow from 25 to the 45 which were held in 2003! Something that she would never have believed if you had told her that, back in 1999.

Maureen has been a valued member of the Institute Team and will be sorely missed by all. We would like to take this opportunity to thank her for all her hard work over the last four years. We wish her luck in her retirement.

The new Festivals Administrator is Miss Eleanore Chambers. Eleanore joins us from her native New Zealand and is looking forward to the challenge ahead!

Other staff changes are that Miss Lesley Grout will move from being our Institute Administrator to our Communications Manager and Miss Emma Rainbow will start with us on Monday 5 January 2004 as our new Institute Administrator.

Institute News

Sharing Good Practice - in the Teaching of Chemistry on Tuesday 16 March 2004 at Salters' Hall, Fore Street, London

Following on from the success of this year's Sharing Good Practice Seminar we plan to hold a similar event in March 2004.

- Previous winners of "The Salters' Prizes for the Teaching of Chemistry" will lead sessions on topics such as:

Practical Work and Difficult Concepts
Using the White Board to Good Effect
Making Chemistry Come Alive
Chemistry in the Sixth Form

- Share in discussion and debate about key issues
- There is no cost for the event. Participants are responsible for their own travel expenses. Lunch and refreshments will be provided.

Salters' Annual Conference for Chemistry Teachers

5-8 July 2004
at
The University of York

A valuable opportunity for the professional development of teachers of post-16 chemistry through a programme of:

- lectures
- practical workshops
- industrial site visit
- discussion sessions led by scientists from the Department of Chemistry

The Conference provides the opportunity for teachers to:

- increase awareness of new developments in science education
- update subject knowledge
- learn ideas to enliven teaching from the cutting edge of research and industry
- improve teaching standards by sharing ideas on good practice in chemistry teaching with other teachers from a wide range of schools
- meet leading researchers and industrialists

Cost of the Conference - £150
(includes all meals and accommodation in en-suite rooms)

For further information on either of these activities please contact:-

Institute Administrator

Miss Emma Rainbow

The Salters' Institute
Salters' Hall
4 Fore Street
London EC2Y 5DE

Tel: 020 7628 5962

Fax: 020 7638 3679

E-Mail: institute@salters.co.uk

Institute News

The Salters' Jerwood Prize

This year the Prize was won by Dr Mark Bunnage of Pfizer Global Research and Development. Here's what Mark had to say about winning the Prize at the recent Prizegiving Ceremony: -

"I'd like to thank the Salters' Institute, the Jerwood Charitable Foundation, and of course the Prize Selection Committee, for selecting me to receive the Salters' Jerwood Prize this year. For many years the Salters' Institute has recognised and encouraged young chemists to pursue an education – and a career – in chemistry, and I am honoured and delighted to be recognised by the Institute through this very prestigious Prize.

My personal message to students interested in chemistry is this: chemistry is exciting! Combine that excitement with working in an industry that discovers new medicines to treat patients, and you get job satisfaction that I consider second to none.

It has been fantastic to participate in the Salters' Prizegiving Ceremony and celebrate so many achievements in chemistry and other sciences. I'd also like to offer my personal congratulations to all the other Salters' Prizewinners and I'm sure everyone would also wish to join me in expressing sincere thanks to the Salters' Institute for supporting these prizes and all the work the institute does throughout the year for chemistry in the UK."

Institute Staff

Mrs Audrey Strong
Institute Manager

Miss Lesley Grout
Communications Manager

Miss Emma Rainbow
Institute Administrator
(Events, Grants and Prizes)

Miss Julia Chapman
Camps
Administrator

Miss Eleanore Chambers
Festivals Administrator

Email Contacts

institute@salters.co.uk
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festivals@salters.co.uk
handbook@salters.co.uk

The Royal Society of Chemistry - News

Careers

A set of employee profiles entitled **from chemical science to...** has recently been produced by the Royal Society of Chemistry Education Department. The profiles are designed to provide an insight into a number of careers accessed through chemical science qualifications for students in schools, colleges and in higher education. The set includes profiles of a medicinal chemist, analytical chemist, tax accountant, health and safety adviser, patent attorney, teacher and a marketing project manager. The profiles can be accessed at www.rsc.org/profiles. The project is ongoing and we are currently working to source profiles of a doctor, a technician, a consultant and careers in the chemical and pharmaceutical industries.

New Posters

A new set of posters in the **That's Chemistry** series has been designed and these will be distributed to all schools and colleges in the UK with **Education in Chemistry** magazine. The first poster – **Pleasure** – was distributed in November.

For more information on the new posters contact Maria Pack email packm@rsc.org in the Royal Society of Chemistry Education Department

Chemistry Contacts Database

The Royal Society of Chemistry has also set up a database of those interested in receiving email updates about new schools and colleges publications and activities. If you are interested in receiving these updates you can register for this free service on the RSC website at: www.chemsoc.org/networks/learnnet/chemistry-contacts.htm

For information on all of the Royal Society of Chemistry's education resources visit
www.chemsoc.org/learnnet

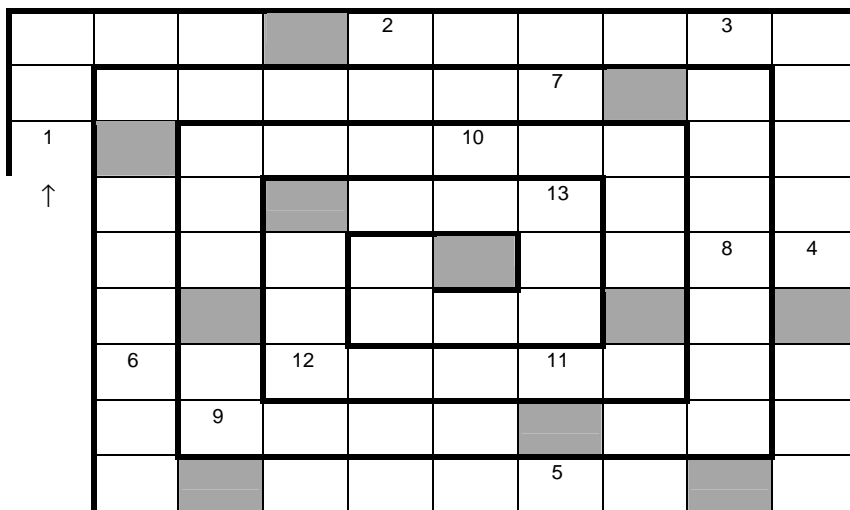
Competition Time!

The **SALTERS'**
Chemistry Club

A Material Spiral

ENTRY IS RESTRICTED TO STUDENTS IN YEARS 7, 8 AND 9 ONLY

The last letter of each answer forms the first letter of the next one. Answers start in the relevant numbered square in the grid and run in a spiral towards the centre square.



1. Oxygen will re-light a ----- splint. (7)
2. Oxygen and nitrogen are colourless ----- (5)
3. ----- chloride is the name of a common salt. (6)
4. Iron, cobalt and nickel are all ----- (8)
5. ----- is used to kill germs in swimming pools. (8)
6. Copper is a good conductor of ----- (11)
7. Sulphur is a non-metal of this colour. (6)
8. Materials, like plastic, that keep the rain out are said to be ----- (10)
9. Materials that catch fire easily are said to be ----- (9)
10. Substances that cannot be broken down into anything simpler. (8)
11. Sodium and potassium are examples of ---- metals. They can be cut easily. (4)
12. Wool is an example of a ----- insulator. (7)
13. Oil, water and vinegar are examples of ----- (7)



When you have filled in the answers, the shaded squares will form a word which spells out a property of glass. What is it? Answers on a postcard please to the address **below**. Don't forget to give your **name, address, age and school**.

The closing date for entries is **30 April 2004**. The first five correct entries drawn will receive Salters' Chemistry Club T-shirts. 25 runners-up will receive smaller fun prizes. Answers and the list of prizewinners will be published in a future issue of "A Pinch of Salt!".

Schools may enclose multiple entries in one envelope. Please make sure each entry has the student's name, age and school.

The Salters' Institute
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www.salterschemistryclub.co.uk