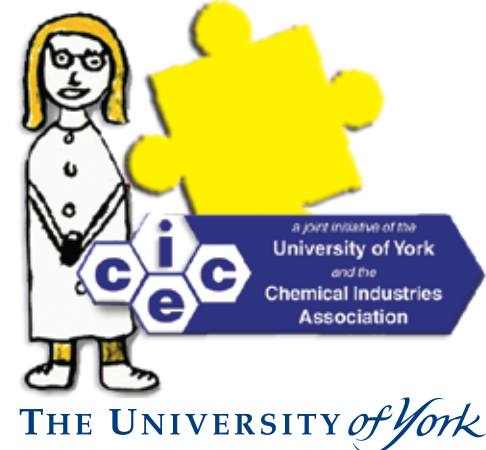




PSEP
Supported by the Gatsby
Charitable Foundation

2008 got off to a great start with more awards giving recognition for the team's efforts and keen interest in what we are doing coming from Norway and Spain. Some exciting new visits have taken place including the *Chemistry For Our Future* visits, funded by the Royal Society of Chemistry, giving children the chance to see what university life is like while they still have time to make effective choices. We were thrilled to receive so much positive feedback. The visits to university chemistry departments took place in addition to industry visits and classroom investigations. We hope you will be inspired by the enthusiasm of all the contributors to this issue and are motivated to join in the fun being had by children and adults alike.



Highly Commended
National Training Awards 2007

Summer 2008

The joint newsletter for Children Challenging Industry and the Primary Science Enhancement Programme

Children Challenging Industry

DURHAM, TYNE AND WEAR



Exciting visit linked to our *Generating Electricity* topic

November saw some new 'trainees' on site at AMEC's Industrial UK Overhead Line Training and Development Centre in Darlington when a class of Year 6 pupils from Coundon Grange Primary School near Bishop Auckland visited the site. During the site tour the children were faced with a mock scenario (pictured) to educate the children regarding the dangers involved in playing near pylons and the correct action to take should they ever find themselves in a similar situation.



Pupils from Coundon Grange Primary School taking part in role play at AMEC

The second part of their visit involved finding out where electricity comes from and, using a model wind farm, the class saw how wind energy was able to power everyday objects.

"The children have been looking forward to the visit. Their enthusiasm for asking questions and wanting to be involved shows just how interested they are. Making it fun is what engages them and, while it is educational, there are valuable life saving lessons learned. A big thank you to all at AMEC." commented teacher Tammy Johnston.

CCI helps with SATs results and CPD

Unlike professional development for literacy or numeracy where an outsider comes in and watches a lesson and then tells you how to improve it, this project offers the opportunity to see excellent classroom practice with your own children. This has to be, in my opinion, the major strength of **CCI**. All of my professional development has been provided by my involvement with this project and our SATs results continually place us at the top of the league tables. I am eternally grateful for the opportunity I have been given.

By Michelle Goundry, Deputy Head Teacher and Science Subject Leader, Heighington Primary School, Heighington, Feb 08

For more information about the link between involvement in **CCI** and improved KS2 SATs results see www.ciec.org.uk



The **Chemical Industry Education Centre** is a joint venture between the Chemical Industries Association and the University of York. The aims of the **CIEC** are to enhance effective science teaching, create enthusiasm for science in children and improve understanding between schools and the chemical industry.



Cough Syrup goes cross-curricular!

During November and December I taught Cough Syrup for the first time. This was interesting for me and the children. Although the children had learnt about the growth of yeast previously, the industrial links gave it a totally different focus. Everyone involved learned something from the sessions; the children thought it was great to blow the balloons up and fill the room with the smell of yeast whilst the members of staff from the school felt it gave the lessons a real purpose which they could use to develop cross curricular links.



One of the brilliant designs for Cough Syrup

The design work for the bottles and packaging were totally imaginative and were developed in-between other activities, and children even used their play times! The enthusiasm was so great that some of the classes also created radio adverts to be presented to the rest of the class. The cooperative skills which were developed in the making of the adverts and during all the other aspects of the project made it all a complete success.

By Michele Smale, CCI Advisory Teacher for the West Yorkshire region

Gayle Pook and Joy Parvin were delighted to receive a National Training Award from UK Skills, in recognition of the training provided to teachers and industry through the **Primary Science Enhancement Project**.

The training was placed in the highly commended category by the Yorkshire and Humber Judges.

Joy and Gayle were particularly delighted that **PSEP** has received this accolade, "This award highlights the success of a dedicated team and we are thrilled that their achievements have been given this recognition."



Norwegian teachers enjoy a site visit to Solvay



The Norwegian teachers at Solvay with Sue Andrews (front row, right)

Liverpool Compact hosted a visit for a group of Norwegian teachers, in response to a request by a representative from the Norwegian Industry and Education Partnership. The teachers also visited Solvay Warrington. Sue Andrews, the **CCI** Advisory Teacher for the North West asked Martin Griffiths of Solvay to give them a presentation and site tour. Martin already works closely with Sue to deliver excellent **CCI** site visits for local schools. The Norwegian group thoroughly enjoyed the experience, "The trip around the plant was a wonderful contribution to our study visit."

PROJECT NEWS



Chemical Industry Education Centre Scoops another Award

Highly Commended
National Training Awards 2007



Joy Parvin (left) and Gayle Pook receiving the award from Colin Jackson



Chemistry For Our Future visit to Durham

Year 6 pupils from Heighington Primary School near Darlington show and describe the results of their investigations into the E-numbers in sweets to Lucas Applegarth, a PhD student. They carried out their experiments in the chemistry department laboratories at the University of Durham. During their visit they also heard a talk about the University in a student lecture theatre and watched science practical demonstrations by research fellow Dr Lars-Olof Pålsson.



PSEP at Killingholme Primary School

I took part in the *PSEP* training as I wanted to make the pupils in our school more excited about science. I was concerned about the poor use of scientific vocabulary throughout our school.

I decided to tackle the project *Feel the Force*. We are situated close to oil refineries and power stations where most of the local traffic is industrial.

The project required the 'Research Team' to find out if lorries needed to have fairings to reduce running costs.

From the lesson introduction, a letter from a haulage company, the pupils were gripped. Pupils were organised into groups and each member had a different role – administrator, resource manager, etc.

All the class enjoyed discovering the effects of wind resistance in the playground by running around with large sheets of paper.

The discussion afterwards about variables led to an opportunity to reinforce the use of vocabulary such as air resistance and aerodynamics – words not used at the start of the session. Therefore, not only were the class motivated by the science, but I had achieved my aim of improving their vocabulary!

By Lynda Cavanagh, Deputy Head/Science Subject Leader, Killingholme Primary School, North Lincs



Nicky Waller wins NEPIC's Annual Young Achiever Award 2008

Congratulations to *CCI* Tees Valley Advisory Teacher, Nicky Waller, who has just been awarded NEPIC's Young Achiever 2008 in the category of Supply and Support.

Questionnaire Prize Draw

All schools who return their completed questionnaires (which are used to evaluate and improve *CCI* and *PSEP*) are entered into a termly prize draw. By returning your questionnaires promptly you could win £50 to spend on science equipment.

This is how some of the Prize Draw winners from last year spent their prize money.

We have bought a new 'Grab and Go Colour and Light Box' for our Foundation Stage who are doing this topic this half term. The box has already proved a great hit. We have created a light den in the classroom and the children really enjoyed exploring all the equipment beneath a thick black cloth. We have observed some great work. *By Richard Unthank, St Peter's C of E Primary School, Brotton*

Leconfield Primary school spent their prize money on bulbs and bulb holders, beakers and badge holders for group work. *By Craig Elder, Leconfield Primary School, Beverley*



The Grab and Go Colour and Light Box



	Durham, Tyne & Wear	Humber	North West	Tees Valley	West Yorkshire
Number of schools	9	31	24	23	17
Number of children	238	853	699 ²	677	531
Number of teachers	66	202	167	250	139
Number of site visits	10	24	23	30	16
Number of University visits	2	6	4	4	11
Number of site personnel trained	25	3	5	24	12
Additional teachers trained (including any additional adults)	49	151	66 ¹	218	12

Figures for all CCI regions September 07 - March 08

Notes:
1 Includes extra adults during *CCI* sessions and *PSEP* training
2 Estimate



Ambassadors testing the viscosity of liquids at Solvay

Ambassador Training... *by Sue Andrews*

Solvay Warrington hosted the recent training for *CCI/PSEP* Science Ambassadors. Joy Parvin and Sue Andrews led an afternoon of practical science investigations for industrialists keen to share their enthusiasm for science with primary pupils. The training consisted of a practical session, an introduction to the *PSEP* website (www.psep.org) and the National Curriculum, and tips on how to enthuse possible future young employees.

George Oliver from Solvay is already putting his skills to the test; he is working with several classes from a local school, introducing the children to the excitement of plastics. "I found the training invaluable" said George.

...Being an Ambassador *by James Winterburn*

As a young research scientist just beginning my PhD at the University of Manchester I am keen to pass on my passion for science to people of all ages. To find out more about *CCI* and meet the people involved I attended the *CCI/PSEP* Ambassadors' training day at Solvay. My favourite *CCI* investigation involved creating different bubble mixtures, which I liked as my PhD research is about foam!

Since becoming a *CCI/PSEP* ambassador I have helped teach the *Water for Industry* topic at Lostock Gralam CE Primary School, and visited local schools to encourage them to participate in the *CCI* project.

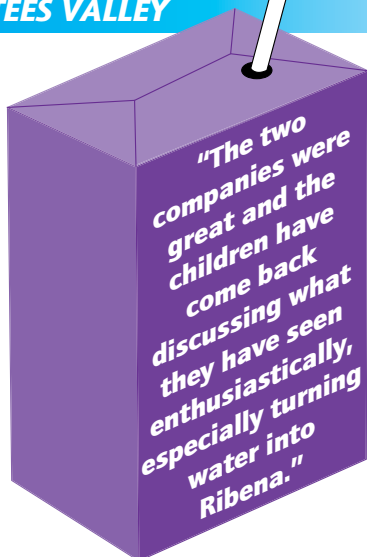
James at work in his laboratory



...and a huge thank you!

from Lorraine Johnson, Barnton School, Cheshire

A huge thank you for a fabulous visit this morning. Being able to see science happening in a real environment has made the learning much more meaningful and real for the children and has hopefully also fuelled their love of science. Please extend our thanks to George [Oliver] and the rest of the team at Solvay Warrington who contributed to making the morning memorable for the children.



"Thanks for organising everything, I've been so impressed with the way the children have taken to the project and also in the way you have taught my class, it has been a fantastic experience for them and me. It's definitely the way forward for practical science in our school and there is a real buzz about science in Year 6 - so thank you again for giving science the lift it needed and deserves."

By Stuart Pickup, Year 6 teacher, Yam Primary School, Stockton - following their involvement in the *CCI* project



Children raise the tone at Jotun paint factory

Year 6 pupils from Henderson Avenue Primary School visited the Jotun paint factory where after a tour of the factory they were able to experiment with weights, volumes and densities before mixing paint colours themselves.

Andrea Hughes, their class teacher, said: "The children have enjoyed themselves and learned so much to take back to the classroom."

Kallhen (11) was enthusiastic: "The part I enjoyed most was mixing the paints because I got really close to the peach colour on the card." He added he had been hoping to become a writer but was now considering a career in industry.



Mixing paint colours proved a big hit

Operations manager at Jotun Paint Europe Ltd., Mike Young, thought the day had been fun for staff as well as the schoolchildren. "It has been useful to tie this practical work in with what they are doing in their curriculum."



Tees pupils are the 'Chemists of our Future'



Ice-cream makers with the fruits of their labours

Twenty-five children from William Cassidi Primary school, Stillington, enjoyed a visit to Teesside University as part of their participation in the CCI project teamed with the **Chemistry For Our Future** programme.

After three classroom sessions and then visiting a new CCI company, Darchem Engineering, for a wonderful morning of hands-on learning, the class spent an afternoon at Teesside University.

The pupils took part in several different activities in the chemistry laboratories, including launching plastic rockets fuelled by hydrogen, making (and consuming!) ice-cream using liquid nitrogen, and separating mixtures of coloured dyes.

Class teacher Lindsay Turner commented "We all had a great time. We feel so privileged to have had this opportunity and the class so enjoyed using 'proper' science equipment! You will be a hard act to follow for the rest of the year!"



Chemistry For Our Future: Lizzie reports on the CFOF project



Alan Tann, EHS Manager at Brothertons showing the children how to check the temperature of the water sample

"We took part in a project called *Children Challenging Industry*. It involved filtering water, looking for pipe sealants and cooling water temperature. We all got into groups and had different jobs and then we decided our groups name like Water fall. Then the next week we went to Huddersfield University and we did an experiment that involved getting the salt, sand, Hama beads out of the water. And also we went to a chemical factory called Brothertons. First we learnt how to connect pipes together. What I learnt was that it is very enjoyable to be a scientist and that it is not all about doing experiments. The best thing I enjoyed was looking at how to put pipes together and it was fun as well because you get to do it all together and I thought that was definitely the best part."

By Lizzie, aged 10 and a half

NORTH WEST



Sue and some of the pupil investigators in Catalyst's super new labs

Catalyst Saturday Club

Great fun was had by all at a recent monthly Saturday Science Club at Catalyst Science Discovery Centre. The eager pupil scientists took part in a colour exploration day to learn how chemistry can be used to create colour. Mixing chemicals to produce luminescence proved particularly spectacular. The session was led by Judith Bain, Analytical Chemist from Pilkington's in Lathom, Ormskirk.

"We are always looking for ideas for exciting activities for our ever-growing group of investigators and would welcome support for hands-on activities from companies or individuals in the region.", commented Sue Andrews, CCI Advisory Teacher.

DURHAM, TYNE AND WEAR



A first for 3M

Burnard Hume of 3M in Newton Aycliffe explains to children from St Joseph's RC VA Primary School, Coundon, how respiratory face masks are manufactured. This was the first time that 3M had hosted a CCI visit. The class teacher Samantha Overfield wrote to tell us how she and the children had enjoyed the trip to 3M and that the children had learned a great deal from participating in the CCI programme. 3M will be hosting PSEP training for teachers in March.



PROJECT NEWS



Spanish teachers visit CIEC

A group of Spanish teachers sponsored by the Spanish Chamber of Commerce and the Department of Education



Spanish teachers at the University of York

visited CIEC to hear about its work. Whilst at the University they also visited the Chemistry Department and National Science Learning Centre. Joy Parvin, who hosted the CIEC visit, commented, "This visit provided a good opportunity to introduce the CCI and PSEP concepts to another group of European secondary teachers."

PROJECT NEWS



Attention PSEP trainers

The new mini PSEP training booklet complete with DVD is now available.

It provides clear instructions about navigation of the website in a slim A5 format. Please contact CIEC to order copies for your next training.

Diary April 2008 - November 2008

If you are interested in attending any of these events please get in touch with Gayle or Joy at ciec@york.ac.uk

Tees Valley

- 27th February 2008 CCI/PSEP Ambassadors Training for industrialists at Wilton, Redcar
- 18th March 2008 PSEP Training for teachers in North East region, 3M, Newton Aycliffe
- 3rd April 2008 Workshop for PGCE trainee teachers at Liverpool Hope University
- June 2008 (dates tbc) 2 PSEP training days
- 26th June 2008 Event for Science Advisors at Museum of Science and Industry
- 7th July 2008 CCI in the North West Annual Celebration at Catalyst Science Discovery Centre, Widnes

Durham, Tyne and Wear

- 10th July 2008 North East Celebration Event

Humber Bank

- 6th March 2008 Puppets, Escrick, North Yorkshire
- 7th May 2008 Puppets, North Lincolnshire
- 6th June 2008 PSEP, North Lincolnshire
- 9th June 2008 Puppets, Ripon Race Course
- 13th June 2008 North East Lincolnshire Science Coordinators Day
- 25th June 2008 Humber EBLO Day
- 3rd July 2008 North East Lincolnshire Science Coordinators Day

West Yorkshire

- 1st April 2008 West Yorkshire Annual Celebration Event, Bradford
- 3rd April 2008 CCI/PSEP Ambassador Training, Syngenta, Huddersfield
- 4th June 2008 PSEP training, Syngenta, Huddersfield

National Science Learning Centre courses at York

- 3rd-4th March 2008 Extending Gifted and More Able Pupils in Science RP2
- 10th-11th March 2008 Leading Assessment for Learning in Your School RP2
- 24th-25th April Advanced Skills Teachers Conference
- 18th June 2008 NSLC Primary Science Coordinators Conference

Contacts

If you would like to know more about Children Challenging Industry or the Primary Science Enhancement Programme, contact:

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