

Polymer Studytours

2007



'Plastics are now an essential part of life and we have to learn to use them in a sustainable way'.

our
20th
year



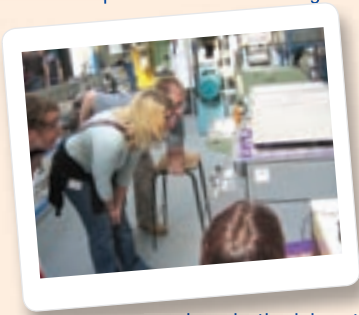
The Association
for Science Education
Promoting Excellence in Science Teaching and Learning



Worshipful Company of Horners

course overview

These 3½ day residential courses are designed to provide teachers with case studies that they can use in contextual teaching of both science and design & technology and they give teachers the opportunity to meet in an informal environment to exchange views on the teaching of science and design & technology. They help to educate teachers on the science, technology and applications of polymers (both plastics and rubbers). In addition the courses promote the knowledge of polymers and plastics and their importance to the quality of everyday life and thereby enhance the image of plastics and the plastics industry in the eyes of future consumers. In line with the current curriculum there is a session on “citizenship” that focuses on recycling and the calculation of life cycle analysis costs.



The course gives teachers the unique opportunity to visit major plastics processing companies and to attend lectures and discussions with leading figures from industry and academia. There are sessions in the laboratories where the teachers can operate machines to make and collect samples for their schools and use test equipment. There is a session on testing and identification of plastics that can be used back at school.

Teachers who complete the course will receive a Certificate of Attendance from the ASE for their CPD portfolio.

The Worshipful Company of Horners Educational Trust initiated this teacher education programme in 1987 and they still provide most of the sponsorship funding. The course costs about £700 per teacher and we ask each teacher's school to contribute £100, the Homers Educational Trust and generous sponsorship by companies and organisations involved in supporting education provide the rest.

To date more than about 1700 teachers have benefited from the scheme, and more importantly so have the countless young people they have taught. The programme is residential with a duration of 3½ days, run at three regional UK Centres - Napier University in Edinburgh, London Metropolitan University, and University of Bradford. To accommodate teachers' schedules as conveniently as possible, Polymer Study Tours take place at the end of the summer term, and on a different week for all three venues. The course outline is similar at all three residential centres, with differences to suit the local plastics factories that are to be visited and the facilities of the sponsoring Universities. The course outline is opposite:



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industry awareness for teachers

Day 1 Starts 3pm to allow for travel to the course

- Introduction to the course and plastics industry, science and economic
- History and design of polymer products from horn to modern plastics
- Dinner, followed by informal ice breaker event such as rocket car racing

Day 2

- Polymer Materials and Polymer Applications - formal lectures
- The Schools Affiliate Scheme - Diane Aston Institute of Materials, Minerals and Mining
- Polymer Workshop in the labs - Hands on processing and testing where the teachers get to make things and break things, and take photos for their schools
- Dinner, followed by quest lecture from local industrialist or academic



Day 3

- Industrial visits to local plastics processing companies - photo opportunities
- Course dinner with short speech by an Officer from the Worshipful Company of Horners

Day 4 Closes about 4pm

- Polymer Identification and Testing - Tests that can be replicated at schools
- The Sustainable Environment talk and discussion on recycling - John Sale
- Plastics Product Design - Examples of good and bad design - John McLoughlin
- The Polymer Industry and Support for Schools
- Final session - Evaluation, development and improvement.

CD ROM of course material and photos is provided later in the year

The following companies and organisations sponsor the polymer Study Tours.

Arkema Plc Total Plc Basell Uk Ltd Bayer UK Ltd Borealis Polymers Nv British Polythene Industries Plc Linpac Polymers and Plastics Group Royal Academy of Engineering RPC Containers Ltd Sabic UK Ltd DuPont UK Ltd Midlands Polymer Group Manchester Polymer Group Scottish Plastics and Rubber Association British Rubber Manufacturers Association PlasticsEurope The Society of Plastics Engineers The Salters Institute The Homers Company Educational Trust Polypipe plc. The Institute of Materials, Minerals and Mining Plastics Industry Educational Training Trust Plastics Machinery Manufacturers & Distributors Association Polaroid UK Ltd

teacher's comments

"The balanced mix of lectures, laboratory sessions and industrial visits has given me much greater knowledge and insight into the composition, testing and processing of plastics."

John Wigley, Bradfield College, Reading



"I can't congratulate the organisation enough for the broad-based course you offered with the added advantage of being able to interact with 'specialist experts' to have specific questions answered at any time."

Geoff Faulkner, Head of Design Tech Art & Design, Woking College



"I am Head of Design & Technology and the information and expertise I have accumulated will be easy to impart to A Level D&T Product Design students."

Jeremy Twyman, King Edward VII School, Sheffield



"All in all it was a superb intensive learning experience, bringing science and technology teachers together from secondary schools and Teacher Education Institutes"

Susan McLaren, University of Strathclyde, Glasgow

"I mistakenly thought that consumer items ie paper bags, glass bottles were somehow preferable and less polluting than plastics. Having seen energy costs for manufacture and transport, combined with the costs of collection and removal I can see that plastic does have an unfair press."

Jeff Knox, University of Sunderland