

PARTNERSHIP ACTIVITIES WITH INDUSTRY

Industry is a valuable resource to enhance not only science teaching but a host of other activities in the primary curriculum. However many teachers are unaware of the opportunities offered and the ways to go about the liaison. The information below shows you how to either make your own approach to a company or to find out about schemes such as the Royal Society of Chemistry's Chemistry at Work scheme. Details of a Chemistry at Work activity are given on page xxix.

HOW TO ORGANISE AN INDUSTRY LINK

How to get started Obviously you will not be the first to attempt this, but the company you approach may not have been involved with primary schools before, so the following suggested steps may help you and the company work out what you can do together successfully.

Step 1: How do I find the right company to approach – close ties with a local company may make things easier, so don't forget to use the children as the first point of contact. Parents, relatives, close family friends and neighbours may turn out to work in industry and the personal contact is invaluable. Failing that, school staff and governors should be the next avenue to pursue.

Your Local Education Authority can put you in touch with your regional Education Business Partnership, SETPOINT or SATRO (if they exist). You can also find details on the SETNET website (<http://www.setnet.org.uk>)

Suitable companies to approach to help support science teaching

The types of company you may wish to consider are:

- (a) **Heavy chemical** manufacture large tonnages of chemicals usually extracted from oil.
- (b) **Fine chemical** manufacture unfamiliar chemicals which are used to make more complex chemicals eg pharmaceuticals.
- (c) **Pharmaceutical and Health care**
- (d) **Other processing industries** manufacturers of cement, bricks and other construction materials
- (e) **Food processors** breweries, dairies, bakeries
- (f) **Cosmetics**
- (g) **Glass industry**
- (h) **Metal foundries**
- (i) **Plastic processors**
- (j) **Quarrying and mining**
- (k) **Environmental monitoring and analysis**
 - water treatment
 - waste disposal
 - recycling plants
 - public health laboratories
 - sewage treatment
 - forensic laboratories
 - hospital pharmacies

Step 2: How should I make the first contact? If you have been able to use a personal contact to establish a link with a company you will find it easier to make the first approach as you will have a name, and perhaps a bit of background information about this person and the company. This will always help to get things going.

If you don't know the name of the person to contact, it is a good idea to telephone the switchboard and ask for the name of the senior person in one of the following departments:

Human Resources (personnel)

Community Affairs (public relations)

If you have the impression that the company is small, just ask for the name of the chief executive on site.

Once you have the name of a person to contact:

- (a) Write to say you will be telephoning to discuss the possibility of working with the company to help promote science in your school. (Draft letter below.)

Dear

I am writing to enquire whether there would be an opportunity for me to meet you to discuss the possibility of working with your company to enhance science teaching in my school.

There are a number of activities which have been successful for other school industry partnerships. I am enclosing a photocopy of some quotations from teachers and industrialists who recommend such activities (enclose a photocopy of the page of quotes).

I am interested in (choose one or two from the list) site visits/project work/a speaker coming to talk about an aspect of his work which fits the curriculum/help with science clubs/help with science investigations/professional development courses/teacher placements - but would be happy to discuss other ideas too.

Unless I hear from you I will telephone to arrange a date and time to meet.

Yours sincerely

- (b) Telephone and arrange a date, time and venue (either at the site or school) for a meeting.
- (c) Meet with an open agenda (see step 3) but with some ideas of what you want to do (see step 4).

Step 3: Create an agenda for the first meeting Think about what you want from the meeting. Don't be too ambitious in the first instance, and allow for the relationship to develop.

Example agenda:

(1) Teaching science in primary schools

- what is in the curriculum
- how it's resourced
- the needs of the teachers

(2) The company's experience of working with primary schools

(3) List activities which are feasible for the company and desirable for schools

(4) Choose one activity to follow up

- list actions to be taken in advance
- propose a timetable
- allocate responsibilities (including costs)

Step 4: The first meeting Be open-minded, as the company, inspired by your interest, may suggest activities which you had not thought of but which are spot on. However it is likely that the company, especially if new to this kind of partnership, will want to hear your ideas first. Don't be too ambitious, but give the company a list of activities which will help enhance science teaching in your school (see letter and page of quotes).

Make sure you leave the meeting with a clear understanding and agreement of what the next action is. It's a good idea to send the company a copy of any notes taken, especially those related to the proposed activity.

You and the company will probably find yourselves very busy preparing the agreed activity, but once you see the children's reaction you will know it's been worthwhile. Parents will probably be interested to hear about the event, so a letter home telling them about it is a good idea.

Step 5: The agreed action As the event takes place don't forget you can use it to win good publicity for the school and company.

Step 6: After the event Give the company plenty of feedback, evaluating the event and if necessary suggesting improvements, but don't forget to thank them and if things have worked well suggest a meeting date to discuss the 'next' event!

FURTHER HELP

Organisation

Association for Science Education, ASE

College Lane, Hatfield, Herts, AL10 9AA
Tel: 01707 283000
Fax: 01707 266532
email: ase@asehq.telme.com

Association of the British Pharmaceutical Industry, ABPI

12 Whitehall,
London,
SW1A 2DY
Tel: 020 7930 3477
Fax: 020 7747 1413
email: sjones@abpi.org.uk

Institution of Chemical Engineers

Davis Building,
165-189 Railway Terrace,
Rugby, Warwickshire,
CV21 3HQ
Tel: 01788 578214
Fax: 01788 560833
email: profdev@icheme.org.uk

The Chemical Industries Association

working through Chemical Industry
Education Centre,
Department of Chemistry,
University of York, Heslington,
York, YO1 5DD
Tel: 01904 432523
Fax: 01904 434078
email: ciec@york.ac.uk

The Royal Society of Chemistry

Burlington House,
Piccadilly,
London, W1J 0BA
Tel: 020 7437 8656
Fax: 020 7287 9825
email: education@rsc.org

Help offered

ASE membership offers:
Magazines, Curriculum guidance. Safety advice, Mail order service for affordable books, National and regional events and inservice training.

Contact the Education Executive for information on the ways in which the ABPI and its member companies support education in the UK.

IChemE has sponsored four self-contained science activities boxes targeted at Key Stage One and key Stage Two. For further information on the boxes contact the Professional Development Area.

For help on working with local companies, or for information about science and technology teaching and learning.

The RSC produces a wide range of careers material including leaflets and posters which are suitable for use with older primary pupils and are available free of charge.

The RSC also produces curriculum material and organises 'Chemistry at Work'.

THE BENEFITS OF WORKING WITH A LOCAL COMPANY

“Teacher placements into industry are an ideal vehicle for industrialists and educationalists to increase their mutual knowledge and understanding and provide a valuable opportunity to develop long-term links and partnership activities.”

Jane Gamble, ICI Teesside Education and Ecology Manager, Middlesbrough.

“We have a stake in educating youngsters... so we need to become personally involved. We need to become more knowledgeable about practices in education and about barriers to better learning so we know how best to use our resources. To be effective, we need to be accepted by those within the educational community as partners, not as business people trying to tell teachers how to do their jobs.”

Colin Coates, Manager of Environment, Health and Safety, Searle, Morpeth.

“Along with a group of primary teachers, not specially trained in science teaching, I went to an INSET event at Exchem Organics. There we met a group of keen young industrialists. Together we worked on a range of teaching and learning resources sponsored by industry. The outcome was an enthusiastic exchange of ideas which enhanced our motivation to teach children science with a whole new approach based on industrial contexts.”

Sheila Braithwaite, Perryfields County Infant School, Chelmsford.

“Industry can provide a focus for much of the curriculum teachers deliver in the classroom. This gives an opportunity for the work to be placed in context in a more lively and interesting way.”

John Adams, Academic Liaison Manager, Pfizer, Kent.

“We had scientists come into school on a number of occasions to work with the children. The children not only enjoyed all the experiments but found the opportunity of working with ‘real’ scientists very rewarding. Later the children visited the laboratories where the scientists worked and discovered to their amazement and delight that the experiments they were doing in school were actually used in the real world in real laboratories.”

Mavis Hardwick, Hartburn Primary School, Stockton-on-Tees.

“I really enjoyed the whole experience (developing teaching resources associated with site visits) and considered that there are many advantages, such as preparing my pupils for life in a technology based society, helping to change stereotypical images which research shows still exist and raising my children’s awareness of the nature of industry and its role in society.”

Catherine Sinclair, McLean Primary School, Fife.

“Linking with industry delivers real learning value to the curriculum. Children see that the science work they study is valid, relevant and linked to the real world. Excellent projects within the links have given inspiration to both sides.”

Barbara Pollard, Hawes Down Infant School, West Wickham.

"I never imagined that being in the classroom could be so exhilarating. Our company wanted to help create a sense of excitement during primary school science activities, something we called the 'cor' factor, but it was me saying 'cor.' I didn't know children could study so effectively and be so immersed in their work. I was also fascinated by their views on my work place and delighted that we could show them what it's really like."

Dai Hayward, General Manager, Thomas Swan and Co., Consett.

"When my class visited a local pharmaceutical company they were fascinated to see the bottling plant in action. This led to a useful project on friction and forces. Other valuable activities included a 'Health and Safety – spot the sign' trail and visits to various interactive exhibitions."

Jill Matthews, Upton County Junior School, Broadstairs.

"...it is important that industry creates a good interface with the local community and educational establishments. Being involved in science events is one of the many ways both sides benefit."

Bob Tomlin, Personnel Development Officer, BASF, Seal Sands.

"The ecological environment placement on Teesside greatly increased my knowledge... there is a wealth of knowledge, particularly scientific, to be tapped."

Pauline Bennett, St Clare's RC Primary School, Middlesbrough.

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