

# Children Challenging Industry (CCI): All regions study of the effects of industry-based science activities on the views of primary school children and their teachers

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## Executive summary

Provision from the CIEC *Promoting Science* (formerly the Chemical Industry Education Centre) provides children and their teachers with exposure to science-based workplaces, and industrial partners with an opportunity to enhance their reputation in the local community.

From September 2008 to July 2010, the programme reached 8,000 children and nearly 2,200 teachers in 297 primary schools. In addition, 55 science ambassadors were trained.

Industrial partners are a vital part of the programme. There were 213 site visits and 131 new personnel received training from CCI advisory teachers.

Children take part in three half-days of classroom-based science activities, all set within one of a range of industrial contexts. They then visit an industrial site, and the visit is tailored to follow on closely from the classroom activities. CIEC *Promoting Science* advisory teachers provide the classroom activities and professional development for all staff in each participating school and training for all industry personnel.

## Children enjoy the activities

Data gathered before and after the CCI programme showed that over 90% of children said they learned something new and enjoyed the classroom challenges, whilst over 80% of children enjoyed the group work and science investigations. The programme succeeds in engaging children in science by showing curriculum science in a real life context.

## Benefits of teacher professional development

There is clearly a need to engage primary school teachers in science related professional development. 56% of participants in the CCI programme had attended one day or less science training in the previous three years.

The programme delivers professional development sessions to teachers. Additionally, teachers observe and reflect on best practice when working with the CCI advisory teachers on the classroom activities.

Key strengths of the training are seen to be the practical and investigative nature of the activities and their industrial context. The programme has a significant input into the science and industry related professional development of the schools involved in the programme.

## More positive attitudes in teachers and children

Data collected from participants in CCI show that children and teachers have more positive attitudes towards industry following participation in the programme. Children are more likely to consider a career in science and feel that industry is safe. Teachers are less likely to think of industry as having negative environmental impacts and have a greater awareness of the career opportunities that industry may offer their pupils.

## Conclusions

CCI has a significant impact and successfully delivers science activities that enthuse and motivate primary children. Additionally, teachers involved in the programme receive valuable professional development in the teaching of science. A realistic view of industry is presented to participants. This leads to greater understanding and more positive attitudes in children and their teachers.

**For more information**, and to read the full report, go to [www.cciproject.org/research/documents/Exec11.pdf](http://www.cciproject.org/research/documents/Exec11.pdf) or contact

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