

Raising attainment in primary science

This ENTHUSE Partnership of primary schools worked together to raise standards in science, by creating an extensive programme of high quality training that led to improved science attainment in every school.

The Churchend ENTHUSE Partnership consist of five primary schools in Reading and Berkshire, led by Churchend Primary Academy, a teaching school. The Partnership chose to work with students aged between eight and ten years old who were working below expectations in science.

What activities did the Partnership take part in?

The partnership engaged in extensive professional development including an in-house training programme from professional STEM trainers, a lecture programme from Oxford Brookes University and twilight CPD sessions. They collaborated across the partnership by sharing resources, lesson starters and teaching activities; as well as attending regular meetings and planning sessions.

“After the meetings and the training that we have had, there’s been a buzz, [teachers] want to go out and try their ideas, one of the lead teachers has been great at sharing lesson starters to engage the children at the beginning of the lesson, and that had a really big impact on the children” – Churchend ENTHUSE Partnership Teacher

Pupils met STEM Ambassadors from a variety of different sectors, including electronics, computing, chemistry and chemical engineering. They took part in partnership organised events, like Space Week and engaged in ‘hands-on’ learning using practical science activities.

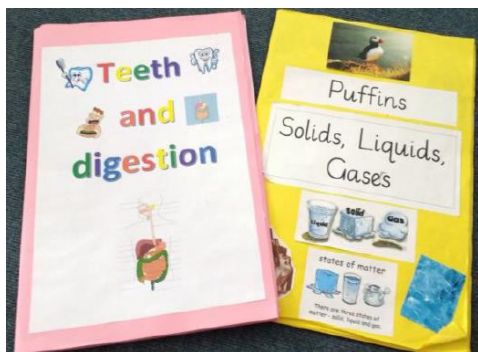
“Over the year, we’ve been working in Bracknell Forest Council, Reading University, Imperial College, Reduce Energy Ltd, Kew Gardens, a STEM ambassador and local conservation groups to expose children to the life of real scientists” - Partnership Qualitative Report

The impact on students and teachers

Impact on students

17% increase in the number of children meeting age related expectations in science.

The number of children meeting age related expectations or higher increased from 45% to 62%, across the partnership.



“We received training on using class books which generates a high level of discussion and draws out where the children want to take their learning.”

- Churchend ENTHUSE
Partnership Teacher

Impact on teachers

Increased use of practical approaches to teaching science.

Teachers reported increased confidence to take a more practical approach to science and support children to investigate and ask questions with well-designed practical resources.

“[We learnt about] the digestive system and saw acids like bile. We made our own system. We learnt that it takes a long time to digest. When we made our system, it actually looked real!” – Eight year old pupil

Increase in the profile of science across the partnership.

The partnership reported, and the external evaluation agreed, that the profile of science has been significantly improved across the partnership, with staff and pupils more enthusiastic about science.

Next steps

Future areas for partnership development include building capacity and expertise in science assessment, especially to capture rich scientific investigation and making links across curriculum, building skills to support science in mathematics and literacy.

They also aim to continue to move from prescriptive and pre-designed experiments to child-led practical enquiry, formalising the enquiry approaches and developing experience and expertise with the use of practical equipment, and in supporting children’s investigation and knowledge.