

School of Teacher Education

THE HOPE CHALLENGE PROGRAMME

CASE STUDY

2016/17

PROJECT TITLE:	Working Scientifically with Plants
SCHOOLS:	Croxteth Community Primary School Our Lady and St Swithin's Catholic Primary School
LEAD:	Tim Griffiths
NUMBER OF TRAINEES INVOLVED:	9
YEAR / COHORT:	BA QTS Year 2 trainees
NUMBER OF PUPILS INVOLVED:	72
CLASS YEAR:	12 x Nursery children 12 x Reception children 30 x Year 1 children 30 x Year 2 children

AIMS

To increase science attainment in working scientifically for identified groups of disadvantaged children in two a socially disadvantaged Liverpool Primary Schools.

PROJECT DESCRIPTION

This project involved the recruitment of nine BA QTS Year 2 trainee teachers to work in two socially disadvantaged Liverpool primary schools for half a day per week, over half a term. The focus of this work was to enhance pupils' progress in working scientifically in the EYFS and National Curriculum science theme of Plants. Through a real collaboration, a university science tutor, primary teachers, teaching assistants, and trainee teachers worked alongside each other to plan, teach and evaluate, investigative science lessons with small groups' of nursery, reception, year 1 and year 2 aged children.

This innovative model of raising pupil achievement was designed to serve a number of different purposes. In addition to targeting an increase of pupil achievement in working scientifically through the use of precisely targeted taught inventions, it also provided trainee teachers with modelled exemplary practice in the assessment and differentiation of scientific process skills. Further, it was hoped that this model might also prove to be effective in the continued professional development of the primary staff involved with the project.

IMPACT/OUTCOMES

- Over the course of the Early Years and Key Stage 1, pupil achievement in working scientifically, and scientific understanding of growth in plants, will be significantly raised compared to pupil data collected in preceding years with other cohorts of children, and at the start of the project with the present cohort.

- School staff will experience school focussed CPD in the pedagogy of primary science and science subject knowledge of plants. In addition to staff development, each school will have an ongoing access newly developed science resource materials for future science provision.
- Trainee primary school teachers will have opportunity to refine their knowledge and skills of assessing and differentiating science provision whilst also gaining a greater and more nuanced understanding of the barriers to learning faced by disadvantaged pupils.

Statement from Christina Flattery, Key Stage Two teacher and Science Lead, Croxteth Community Primary School, Liverpool:

“My current role means that I am responsible for leading science throughout the school. Standards in the teaching of Science were identified in our school development plan three years ago as a focus, particularly around the concept of working scientifically. With this in mind, Tim Griffiths and I developed a strategic partnership working on the Hope Challenge Project for science. This has involved working in collaboration with trainee teachers and teaching colleagues around specific scientific themes, with both colleagues at Hope and myself, to lead and support delivery of the project. Hope Challenge for Science has been accessed by every year group in the school, including EYFS, where the impact has been noted through different sources of moderation. During monitoring, it was noted that children had progressed from being passive learners, accessing information through the use of visuals and worksheets, towards self-motivated learners who have the skills to create their own scientific enquiry questions and record and draw their own scientific conclusions, making links with prior knowledge and understanding. The progression in the way science is now taught is evident from EYFS through to Year 6, with teachers expressing increased confidence and enjoyment in the teaching of science and pupils showing increased attainment in deeper understanding of scientific concepts. As a result of this, our school are now part of a hub of lead science schools based at Liverpool Hope University, who meet regularly to plan and share learning opportunities in order to continually reflect and raise standards. Being part of this hub has provided me with access to CPD opportunities to support staff throughout the school, in the teaching of science.

The project has been highly successful as a model and is now in its third year. It is now delivered in our network partnership school, Our Lady and St Swithin’s, which I am proud to lead alongside Tim Griffiths. I have had the opportunity to talk about Hope Challenge at a Primary Online Exchange, Sharing Best Practice through a national webinar. As a result of this, I have been contacted by a middle leader in a school in the North East of England who is interested in using this model in her school as a way to raise standards. I have been recognised for this work from my current school with a TLR post which has led to involvement on the school’s Senior Leadership Team and has given me the skills to apply for more senior roles within the profession proving Hope Challenge as an excellent model of CPD. More importantly, this partnership has allowed me to take groups of children from different year groups to work with trainees at the university. This has been hugely aspirational for the children, particularly within the social context within which I work, as it has raised awareness of the undiscovered opportunities which children can access in adult life.”

DISSEMINATION (INCLUDING RESEARCH)

- Presentation of project to ITE staff at a team meeting.
- Presentation of project at the 8th Teacher Education Advancement Network Annual Conference (TEAN), Birmingham, 11th and 12th May 2017.
- Presentation of project at the Association for Partnership in Teacher Education Conference (APTE), Liverpool, 7th July 2017.
- Hope Challenge Science celebration day, Hope Park, 24th May 2017.

SUSTAINABILITY/NEXT STEPS

Over the past three years, developmental partnership work has been undertaken with the science co-ordinator of Croxteth Community primary school (Christine Flattery). This work has centred on developing Chris's pedagogical and science subject knowledge with a view to providing her with the skills to lead a sustainable collaborative network of Croxteth primary schools in science.

During the course of this year, Chris led the Hope Challenge science project at Croxteth Community Primary. This role has also involved her leading some of the project afternoons at Our Lady and St Swithin's. We have now established a sustainable Hope Challenge science hub in Croxteth, led by Chris Flattery. During next year this hub will run independently thus allowing a new hub to be established in Anfield, Liverpool, in an attempt to continue to raise disadvantaged pupils' achievement in science education across Merseyside.

It is planned that the science Hope Challenge project will form an integral part of the newly developed BA QTS Enhanced Specialist Subject (ESA). Over the course of the forthcoming year, 10 science specialist BA QTS Year 2 trainees will establish extra-curricular science clubs in the Hope Challenge science schools.