Keele University

Key Stage 3 National Strategy
ITT Science Enrichment Project

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Keele University

Introduction

The project at Keele University had several aims:

- To alert our immediate school science departments (within the ITT Partnership) that the *Ideas and Evidence in Science* aspect of Scientific Enquiry (Sc1*)* is a neglected area of school science and needs addressing;

- To produce innovative materials that could be disseminated initially across our ITT Partnership and eventually to a larger audience via the website;

- To enrich the existing ITT provision. Associate Teachers (ATs) bring enthusiasm and naivety to teaching and this can be utilised to cascade the 'message' and materials into schools;

- To provide professional development opportunities for school-based mentors, hopefully leading to a stronger ITT partnership;

- To raise the standards of teaching & learning, thereby improving pupils' understanding of science;

- To initiate the review of schemes of work in school science departments.

The participants

There were 8 Associate Teachers at 8 partnership schools involved in the project, with Rob Tweats acting as group leader.

Teachers	Schools
Carolynne Delves	Malbank School, Nantwich
John Perry	Endon High School
Nikki Bratherton	Maryhill High School, Kidsgrove
Anna Guy	Newcastle Independent School
David Bellfield	Leek High School
Pauline Woodcock	Eaton Bank High School, Congleton
Rob Swinnerton	St. Thomas Moore Catholic High School
Allison Garside	Brine Leas High School, Nantwich

Kath Swinson	Thomas Alleynes High School, Uttoxeter
Kevin Rendall	Shavington High School
Garry Hamblin	Weston Rd. High School, Stafford
Patsy Barron	Hagley Park School, Rugeley
Vuli Sibanda	Cheadle High School

Associate Teachers involved were Marie Wain, Angela Craig, Fiona Sutton, Alexandra Edwards, Vikki Diggle, Jo Hulse and Hannah Severn

Initially, a core working party was set up, which included university ITT staff, school-based mentors and Associate (student) Teachers. A workshop was held to introduce the project and plan, design lessons and materials, and to formulate the best way forward, given the nature of the individual schools. In the second workshop the lesson activities were evaluated and revised ready for use with the whole of the Partnership.

Overview of activities

Activity M: Spreading Disease

Developed by:

Teachers	Trainees	Schools
Anna Guy	Angela Craig	Maryhill High School
Kath Swinson	Jo Hulse	Thomas Alleynes High School
Nikki Bratherton	Hannah Severn	Edensor High School
Patsy Barron	Fiona Sutton	
Carolynne Delves		
Rob Tweats		

This lesson focuses on an issue never far from the headlines, namely the spread of the influenza virus. It should appeal to pupils because it makes use of recent events. Some pupils may even have been to places where they had to wear masks due to the outbreak of SARs. Pupils collect and consider evidence related to the effectiveness of masks.

Activity N: Acids & pH

Developed by:

Teachers	Trainee	Schools
Garry Hamblin	Alexandra Edwards	Cheadle High School
Allison Garside		Weston Road High School
Vuli Sibanda		
Carolynne Delves		
Rob Tweats		

This lesson requires pupils to think about the evidence they would need in order to decide whether given statements about acids are true or false. A subsequent practical activity provides them with some evidence, but will it be sufficient to make decisions about all of the ideas presented?

Activity O: The Earth & Beyond

Developed by:

Teachers	Trainees	Schools
John Perry	Marie Wain	St. Thomas More Catholic High School
David Bellfield	Vikki Diggle	Shavington High School
Pauline Woodcock		Malbank School
Rob Swinnerton		
Kevin Rendall		
Carolynne Delves		
Rob Tweats		

A PowerPoint presentation is the key resource used in this lesson where pupils examine ideas and evidence about the Earth and the Universe.