



## CASE STUDY REPORT

# Continuity and progression in science across transfer

Trevor Folley

*This study was originally published in 2009 as part of the 'What Works Well' initiative, part of the National Strategies for Education in England.*

## Abstract

**Background:** The purpose of the study was to maximize pupils' progress in science across transfer from primary to middle school by increasing continuity of curriculum and pedagogy, and collaboration between teachers.

**Aims:** The main aim of this development work was to maximize pupils' progress in science across transfer from primary to middle school by increasing continuity of curriculum and pedagogy.

**Methods:** The participants included support staff, headteacher, middle leader, National Strategies consultant, SLT, SIP, subject leader, teacher, local authority staff, and senior management. Teachers from all three schools jointly planned and delivered a transition unit exploring animal habitats. They moderated work across schools to increase consistency and developed self-assessment skills. They also increased teacher visits, liaison meetings, and surveys to measure progress.

**Findings:** The main findings of this case study are that collaboration between Year 4 and Year 5 teachers increased the consistency of delivery of AfL elements and progression in the development of skills for learning, resulting in increased rates of pupil progress and enthusiasm for science.

**Implications:** The findings suggest that increased collaboration between primary and middle school teachers, joint training in AfL, and increased visits to partner schools can lead to increased pupil progress, enthusiasm for science, and improved teacher understanding of each other's approaches to teaching.

*This abstract was generated by Camtree using a large language model (LLM) and added to the original report in 2023.*

**Keywords:** Middle education; Transfer and transition; Science

## Introduction

### What were your reasons for doing this type of development work?

To ensure that pupils' progress in science is maximised across transfer from the first schools into the middle school. Pupils transfer to the middle school for the start of Year 5.

### Who might find this case study useful?

- Support staff
- Headteacher
- Middle leader
- National Strategies consultant
- Senior leadership team (SLT)
- SIP (School Improvement Partner)
- Subject leader
- Teacher

## Description

### What specific curriculum area, subject or aspect did you intend to have impact on?

- Transfer and transition
- Science

### How did you intend to impact on pupil learning?

Through increased continuity of curriculum and pedagogy pupils were able progress from the start of Year 5. Collaboration between Year 4 and Year 5 teachers increased the consistency of delivery of AfL elements and progression in the development of skills for learning.

### What were your success criteria?

- increased rates of pupil progress
- progression in pupils' development of science-related skills
- increased pupil enthusiasm for science

### What information or data did you use to measure progress towards your success criteria?

- Periodic teacher assessment
- Pupil consultation data

### Describe the CPD approaches you used

Middle and primary school teachers jointly reviewed the KS2 curriculum to ensure continuity and progression.

A review was undertaken of systems for data tracking and transfer between schools and improvements implemented.

Teachers from all three schools jointly planned and delivered a transition unit exploring animal habitats. The pupils from the primary schools were merged into their future Year 5 classes and taught together. Teachers from all the schools were involved in the lessons, developing a greater understanding of how each other approached teaching and learning.

The teachers in Year 5 were able to build on these lessons as soon as the children arrived in September. They

had already worked with the children and discussed their individual needs with their Year 4 teachers.

The teachers jointly agreed and targeted particular skills that the pupils could improve. These were assessed at the end of the unit.

The number of teacher visits to partner schools to meet the children and liaison meetings between teachers was increased.

### What CPD materials, research or expertise have you drawn on?

Work was moderated across schools to increase consistency and develop a shared understanding of standards.

Joint training for all three schools in AfL with a focus on increasing the self assessment skills of the children.

### Who provided you with support?

- Local authority staff
- Senior management

### How were you supported?

Senior leaders gave the necessary time, resources, responsibility and trust to the teachers involved in the project.

Suffolk local authority facilitated network meetings to:

- share practice amongst the school involved
- disseminate effective practice from outside the family of schools
- provide opportunities for professional dialogue.

It also facilitated pupil perception questionnaires and supported analysis of responses.

The LA Science Advisory Teacher supported the moderation of work within the family of schools.

## Impact

### What has been the overall impact on pupil learning?

Progress in science has accelerated compared to previous years.

Pupils have been able to build on skills for learning developed in Year 4 from the beginning of Year 5.

### Quantitative evidence of impact on pupil learning

- Periodic teacher assessment

### Qualitative evidence of impact on pupil learning

- Observation outcomes
- Pupil consultation data

### Describe the evidence of impact on pupil learning

The end of unit test (October) showed an increase from an average of 0.84 of a sublevel progress by the previous Y5 cohort to an average of 1.56 sublevels progress by the cohort participating in the jointly planned and delivered unit.

A number of surveys were undertaken with the pupils before and after transfer:

- 66% of pupils registered that they enjoyed science in Year 4. This was built on in Year 5 with the figure climbing to 93%.
- Every child could identify at least one skill developed in Y4 that had improved in the first half term of Y5 (frequent mentions were made of skills related to questioning, estimating and making predictions).
- A survey undertaken with the previous cohort in 2006 found that 64% of Year 5 pupils had repeated work they had done in Year 4. This dropped to 18% with pupils involved in this project.

### What has been the impact on teaching?

The teachers' increased understanding of each others' approaches to teaching enabled them to provide the necessary continuity to the pupils that allowed them to progress from day one of Year 5.

The middle school teachers involved used the Primary National Strategy's AfL school self-evaluation tool to assess their implementation of elements of AfL. Significant improvement was noted in the following areas:

- conditions for learning
- the use of curricular targets
- designing opportunities for learning

The teachers used the National Strategies Transfers and transitions Self-evaluation tool to assess improvements in transfer relating to science. Significant improvement was noted in the following areas:

- use of data and information
- continuity of curriculum, teaching and learning
- ethos and climate for learning.

### Quotes you think are relevant to the impact on teaching

The project involved the Year 5 teachers visiting Year 4 lessons and working with Year 4 teachers,

"The opportunities to observe other teachers and discuss approaches with them have greatly improved my own skills." (Year 5 science teacher)

"I was able to observe their approach, watch the way staff related to children and see the amount of responsibility the children are given and the levels of independence. We were able to use and refer to different techniques used in the primary schools to ensure consistency for pupils. Most importantly I was made aware of the differences in teaching and learning and the environment in which the children are taught." (Year 5 science teacher)

### Evidence of impact on teaching

- Evidence from observation and monitoring
- Evidence from planning
- Teacher perceptions

### Describe the evidence of impact on teaching

The teachers involved in the project monitored their practice and recorded changes as a result of the project.

### What has been the impact on school organisation and leadership?

The professional relationship between schools has been built upon as part of this project. There were already numerous formal links in relation to transfers and this work has enhanced these with a focus on science and pupil progression.

## Evidence of impact on school organisation and leadership

Increased distributed leadership with science teachers having increased responsibility for liaising with partner schools.

## Summary

### What is the crucial thing that made the difference?

"The most significant developments have been the relationships and links formed with primary school staff."  
(Year 5 science teacher)

### What key resources would people who want to learn from your experience need access to?

We based our transfer unit of work on 'Habitats' & 'Enquiry in Environmental contexts' from QCA Science Schemes of Work in Year 4 & Year 5.

To monitor and measure improvements we used:

National Strategies Transfers and transitions Self-evaluation tool

National Strategies Assessment for Learning Self-evaluation tool

### What CPD session and resources were particularly useful?

The most useful sessions involved professional discussions between Year 4 and Year 5 teachers.

### If another individual or school was attempting to replicate this work, where would they start and what would the essential elements be?

We started by arranging a meeting between teachers from either side of the transfer to agree on what we were trying to achieve and discuss how teaching and learning differed in the schools. We then agreed the scope and focus of the work and designed an agreed action plan.

Partnership working between schools is central. The development of mutual understanding and professional esteem are the foundation of all the work that we undertook.

Continuity and progression in developing pupils' skills was as important to us as continuity of the curriculum. We saw transfer as an opportunity to build the pupils' capacity for future learning.

It is essential that teachers have the support of the senior leadership; that strengthening transfers is seen an important driver for raising standards.

### What further developments are you planning to do (or would you like to see others do)?

- Continue to enhance mutual understanding of approaches to learning and jointly plan for consistency of approach, e.g. develop the use of Edward DeBono's 'Thinking Hats' and accelerated learning strategies in all schools.
- Extend consistency and confidence in assessment practice at all transfer points, including a shared moderation process of end of KS1 teacher assessments that involves the middle school teachers.
- Increased regularity of lesson observations and team teaching between schools.
- Develop a pre-transfer meeting with child, Year 4 teacher and receiving Y5 form teacher. This will have a focus on the pupil's prior achievements and targets for the coming year.

## Supplementary Materials

This report is accompanied in the library by the following supplementary material:

- Extract from Strengthening transfers and transition (May 09)

## About Camtree

Camtree: the Cambridge Teacher Research Exchange is a global platform for close-to-practice research in education. Based at Hughes Hall, University of Cambridge, Camtree draws on high-quality research from around the world to support educators to reflect on their practice and carry out inquiries to improve learning in their own classrooms and organisations. You can find out more about Camtree and its digital library at [www.camtree.org](http://www.camtree.org).

## About 'What Works Well'

This case study was originally published as part of the 'What Works Well' section of the National Strategies for Education in England. The National Strategies were professional programmes aiming for improvements in the quality of learning and teaching in schools in England. 'What Works Well' involved teaching practitioners from all phases and areas of education sharing accounts of real developments which had improved learning and teaching, and made a difference to pupil progress. 'What Works Well' case studies were designed to support practice transfer and include sufficient detail and resources to enable others to implement the effective practice described. They were reviewed by experts prior to publication as 'User Generated Content' (UGC) under a licence which encouraged reuse and derivative works, but which precluded commercial use.

## Licence

This edited version of this case study is published by Camtree as a derivative work of the original under a Creative Commons Attribution Non-Commercial Licence (CC-BY-NC 4.0). The structured abstract that accompanies it was generated by Camtree in 2023 using the OpenAI GPT-3.5-Turbo Large Language Model.