

Teaching Science and Design Technology in the Early Years

Dan Davies and Alan Howe
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This book addresses science and design and technology in the early years. Themes which come through strongly include: an interactive approach; the centrality of the child and family; the interactions between these and early school experiences; teacher awareness of children's learning and the awareness of the teacher and the child of their own learning.

The book is well constructed around ten chapters, the purposes of each being usefully set out in bullet points. Tables and black and white pictures assist the reader with illustrative case study material, followed in each case by short, useful commentaries.

The contributors give design and technology equal weight to science. This is impressive as most present influences in the UK, such as legislation and national testing, reinforce the view that science is of greater importance. There are a number of occasions when contributors use ideas from primary science education and adapt them to fit design and technology.

The first two chapters introduce many of the themes that follow. Dan Davies establishes links between science and design and technology and other subjects. These chapters are strengthened by concise summaries of related educational theory. For example, practitioners may feel intuitively that play is important in the early years but the taxonomy of play and other elements referred to here would serve to strengthen practitioners understanding of what, why and how they teach through children's play. Dan Davies and Stephen Ward go on to make a number of useful points about how teachers might support learning in these subjects.

Chapter three discusses the place and importance of the home to both design and technology and science. It was particularly pleasing that the pre-school period of a child's life is not portrayed as preparation for school, nor in terms of 'readiness' but of value in its own right. There is recognition that the home life of all children is not reflected in the very positive examples given, a little more here would give the writing even more depth.

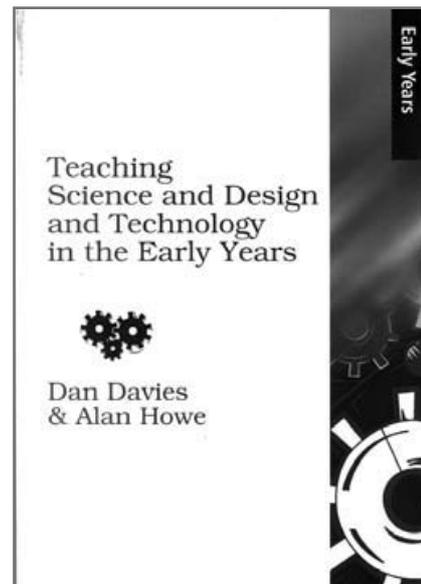
The early years credentials of this team are well illustrated by Pat Black and Sue Hughes who in Chapter four establish how designers in the 'real' world use narrative and how young children in some cases do so by providing their own running commentary of what they are doing.

Chapters five and seven on assessment and planning respectively are complementary. Ideas concerning children being informed about their own learning are developed through suggestions for pupil self-assessment. Planning for early years design and technology and science is well exemplified in Chapter seven where long, medium, weekly and activity plans are illustrated showing the detail required.

One strength of this book is its articulation of the ways that design and technology and science link into the broad themes of early years education using, for example, the UK Government's Early Learning Goals. Whilst all chapters contribute to this, Chapter six written by Alan Howe illustrates it well. Importantly, he goes beyond the limits of any government documentation and describes and illustrates with clear examples how children's designerly activity enriches and is enriched by other areas of experience.

For me Chapter eight was central. What is it that practitioners in the early years need to know about design and technology and science? This chapter explodes any view that might say 'not so much'. A clear case is made by Dan Davies for subject and pedagogical knowledge. He goes on in Chapter nine to discuss children's scientific knowledge, skills and attitudes. This links well with Chapter eight and is rich in terms of tried and tested approaches which practitioners will appreciate.

In the final chapter Dan Davies and Alan Howe give a very useful summary of design and technology in the early years. They deal with a number of issues which



they feel are at the heart of good practice including racism, special educational needs and more provision for able children. Again there are well selected examples and a number of concrete ideas for practitioners.

This is a thoroughly readable and useful book containing many good and excellent ideas for practitioners and those who train practitioners for the early years setting. I would have liked more mention of the role of other employed adults and volunteers in the early years environment. The numerous examples including case studies means that the voice and actions of practitioners is loud and clear, making the book that much more engaging for its audience

David Fulton Publishers
 ISBN 1 85346 880 0
 price £16.00 PB

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Appropriate content	////	Generic use	←
Pupil/student use	////	One of a series	
Teacher resource	////	Photocopiable	
Visuals	////	Pupil/student activities	←
Overall style	////	Cross-curricular	←