



The unique contribution of design and technology



Building on success **Executive summary**

**A report to Ministers
from the Design and Technology Strategy Group**

Prepared by David Barlex, Brunel University

Full copies of the Strategy Group report
can be obtained from the following websites

www.DATA.org.uk

www.primarydandt.org

www.secondarydandt.org

www.teachernet.gov.uk/briefing



Executive summary

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In 1990 design and technology was introduced into the National Curriculum.

The Order was visionary and based on the best practice that could be found, but such practice was not common and inevitably there were teething problems. The professional journey of those who teach design and technology has been tremendous and the considerable growth in success achieved across a wide variety of schools has been recognised and praised by Ofsted and acknowledged from abroad.

Eleven years later Michael Wills (the then Learning and Technology Minister) announced the setting up of the Design and Technology Strategy Group to advise Ministers on how to build on this success. The Group first met in October 2001 and had their final meeting in February 2003. It was chaired by Imogen Wilde, the then Director of Assessment, Curriculum and E learning in Schools Group at DfES.



through design and technology
children learn how to influence the world around them

I Strategy Group actions

1 To facilitate the introduction of Computer Assisted Manufacture (CAM) into schools, the Strategy Group commissioned the University of Warwick Manufacturing Group to develop outline specifications and recommendations for standard CAM equipment needed to fully exploit Computer Assisted Design (CAD) systems in schools.

2 To discover the extent of research carried out in the field of design and technology education the Strategy Group commissioned the Scottish Council for Research in Education to review the literature on the impact of design and technology in schools. Their report, *Designs on the Curriculum?*, provides a starting point from which research targeted at improvements in design and technology can be developed.

3 The Strategy Group commissioned an investigation into the assessment criteria used to examine achievement in design and technology at all Key Stages. The results indicated a mismatch in that the assessment criteria did not specifically reward those features of the subject that make it educationally unique and valuable.



4 The Strategy Group then commissioned a research and development project to confront this mismatch.

The challenge is to develop assessment tools and approaches that:

- utilise new technology;
- prioritise students intervening creatively in the made world;
- enable students to work collaboratively;
- recognise social and environmental issues;
- reward design innovation.

The Technology Education Research Unit at Goldsmiths College is working with a number of schools in three Local Education Authorities, Awarding Bodies, Young Foresight, the DfES and QCA in leading a collaborative research and development project with three strands:

- creating descriptors (looking at performance);
- creating evidence (identifying pedagogy); and
- creating activities (developing appropriate briefs).

The project will deliver its report in December 2004.

5 The Strategy Group identified a serious weakness in Foundation Stage practice. Opportunities to develop children's natural curiosity in the made world were not being taken due to a lack of expertise amongst Foundation Stage teachers. To find a remedy for this situation the Strategy Group commissioned the Centre for Research in Primary Technology at the University of Central England to carry out a pilot professional development programme. The project will report its findings in Summer 2003.

Recommendations

It is recommended that:

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1

Developing innovative practice
Contributing to the primary curriculum

The development of the National Primary Strategy include discussion of the support needed for design and technology in primary schools as a key subject through which to achieve the National Strategy's aims and targets.

2

Developing innovative practice
A modern curriculum with designing at its centre

The new and emerging technologies that can contribute to developing young people's ability to design and make be identified and made available at affordable prices that offer value for money. It is essential that this be accompanied by the development of appropriate curriculum materials and training schemes.

3

Partnerships beyond the classroom
Effective collaboration

Further work be carried out to develop and co-ordinate high-quality collaborative schemes building on existing constituencies and recognising the valuable contribution to be made by a whole range of organisations.

4

Reforming the school workforce
Initial teacher education

The availability and effectiveness of initial teacher education at both primary and secondary levels be closely monitored, with further development of creative schemes to encourage more high quality new entrants into teaching design and technology.

5

Reforming the school workforce
Continuing professional development

The professional development needs for foundation years, primary and secondary teachers, classroom assistants and technicians with regard to design and technology be identified and successful programmes to meet these needs be designed and made nationally available.

I Recommendations *continued*

It is recommended that:

5

6

Informing teaching, learning and assessment

Relevant research and development

The systematic and use-directed research needed to inform design and technology already identified in the report *Designs on the Curriculum?* be developed into research proposals and submitted to ESRC for funding consideration.

7

The place of design and technology in the curriculum

Curriculum development

Curriculum development be carried out to ensure that design and technology can make its full contribution to KS4 in the light of the recently introduced 14 – 19 arrangements.

8

The funding and management of further work

Funding

Funding possibilities be explored through three-way partnerships involving government departments, specifically the DTI and DfES, charitable institutions, particularly the professional association DATA, and business and industry.

9

The funding and management of further work

Management

The Strategy Group, which has representatives from all these constituencies, be maintained to oversee the implementation of the recommendations to ensure a collaborative, informed and co-ordinated approach so that the subject can continue to advance on a broad front.