

Nuffield Design & Technology

KS3 Teacher's Guide

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1 *The promise of design and technology*

The promise of design and technology in the revised National Curriculum paints an impressive picture. The 'importance of design and technology' statement captures the essence of capability.

'Design and technology prepares students to participate in tomorrow's rapidly changing technologies. They learn to think and intervene creatively to improve quality of life. The subject calls for students to become autonomous and creative problem solvers, as individuals and members of teams. They must look for needs, wants and opportunities and respond to them by developing a range of ideas and making products and systems. They combine practical skills with an understanding of aesthetics, social and environmental issues, function and industrial practices. As they do so, they reflect on and evaluate past and present design and technology, its uses and effects. Through design and technology, all students can become discriminating and informed users of products, and become innovators.'

The key features imply:

- **autonomy** – students making decisions and taking action based on those decisions; the actions may require the sanction of the teacher but the aim is autonomy;
- **creativity** – students using their imaginations to produce outcomes that are both original and of value;
- **problem solving** – students able to find problems and work things out for themselves;
- **as individuals and in working with others** – students able to work on their own and also co-operatively;
- **recognising and responding to needs, wants and opportunities** – students will see the world as a place to be improved;
- **producing products and ideas** – students able to design what they want and then make their design;
- **reflection and evaluation** – students able to question their own work and that of others in ways which develop their appreciation of and sensitivity to a wide range of issues;
- **discrimination** – students able to make sound judgements based on reason;
- **innovation** – students with a positive attitude towards the new.

The sum of the above parts is impressive. The potential for learning and developing attitudes and skills for life is immense. Young people are invited to make a difference to the world. This is the promise of design and technology. The Nuffield Design & Technology Project has developed methods and proposed materials that empower teachers to meet this challenge and keep the promise.