

Young Foresight

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Young Foresight is a curriculum initiative capitalising on the fresh perspective of young minds by giving pupils aged 14 the opportunity to work co-operatively to conceive products and services for the future in consultation with mentors from industry using Foresight principles – identifying possible future scenarios, appreciating existing and potential markets, utilising new and emerging technologies, responding flexibly to changes in global and local economies. It requires pupils to anticipate future trends and consumer behaviour and create ideas for products and services that will perform well in a world that hasn't yet arrived. Young Foresight aims to bring design and technology alive in the classroom by introducing local industry to its future workforce and helping teachers meet the standards set by the new curriculum. Across the UK companies will be working alongside schools to envisage the future and conceive products and services for tomorrow's world.

The natural place for Young Foresight is in the design and technology (D&T) curriculum. This quote from new orders illustrates why. “Design and technology prepares pupils to participate in tomorrow’s rapidly changing technologies. They learn to think and intervene creatively to improve quality of life. The subject calls for pupils to become autonomous and creative problem solvers, as individuals and members of teams.” Our approach supports the teaching of the new Orders, particularly those parts that teachers are known to find difficult – designing, product evaluation, impact of technology on society.

Year 9 is chosen because pupils will have had some D&T experience but are not yet on the ‘rail road’ of an examination course – although we are confident that the Young Foresight experience will improve pupil’s ability to be innovative and creative in responding to GCSE coursework requirements, and in due course we expect Young Foresight to influence Examination Boards.

Phase 1 of the initiative (may 2000 – June 2001) involves 100 schools and is laying the foundation for building a community of teachers committed to creativity and innovation in the following ways:

- producing high quality resources in the form of television programmes, pupil materials, a handbook for teachers and mentors and the Young Foresight website;
- providing effective training for both teachers and mentors;
- developing models of good practice which encourage group work, utilise ICT and promote communication and presentation skills;
- learning from our experiences through an independent evaluation carried out by the Open University and feedback from individual teachers and local support groups.

The evaluation reports that the Programme is successful in a number of respects:

- **The Programme targets an important curriculum need.**

All teachers involved saw the Young Foresight Programme as a positive contribution to the D&T curriculum. They were concerned that current practice missed the big picture of technology and its impact on society, and constrained students’ creativity. Y9 students came into the Programme with a narrow perception of technology and design.

- **The materials were well received by teachers, students and industrial mentors.**

The development of a framework for teaching and learning about authentic design activity is a major innovation and strength of the Young Foresight Programme.

- **The Programme is effective in achieving the aims targeted.**

All students began to develop a wider understanding of technology and design and showed a capacity for creative thinking. This capacity was realised with support from teachers using the Young Foresight materials appropriately. Students began to see themselves as involved, and influential, in future action.

The range of modes of learning used in the Programme provided opportunity for all students to develop strengths and address learning needs. This extended students' access to the curriculum. They described the experience as '*cool*' and wanted to do more.

Students valued collaborative group work and the focus on design and not make. These features of the Programme were vital in supporting students' creativity.

- **The Programme is meeting key educational policy needs in a cost-effective way.**

Teachers, students and mentors were very pleased with the progress achieved, and the quality of discussion, written outcomes and presentations. The Programme allowed some students to experience a sense of achievement that was rare for them. This influenced their attitude to school.

The Programme allowed teachers to see qualities and skills in students that they had not recognised previously. They talked of the work being '*well above the level expected*'. Some teachers would have altered their key stage 3 assessments of students as a consequence.

- **The school–industry partnership is effective**

The industrial mentors were a major attribute to the Programme. They validated students' work and related it to the workplace. Mentors enjoyed the work and wanted further involvement.

- **Professional development benefits**

Teachers who lacked confidence in teaching creatively were supported by the Programme and were able to develop their practice.

The evaluation identifies the following emerging needs

- Additional guidance for teachers and students about the materials
- Development of the web site to extend the knowledge base about emerging technologies and new materials available to teachers and students. Web site support for teachers' implementation of the Programme
- Advice about how to assess the creative process students engage in, and its collaborative outcome
- Use of the evaluation data to support professional development for creative teaching
- The development of additional materials to extend the Programme to cover other areas of design and services as well as products

The Programme has pointed the way to achieve significant reform in the Design and Technology curriculum and beyond. The needs emerging can be met if funding is available. The value for teachers and students of developing the Programme is strongly supported by the evidence of the interim evaluation.

Young Foresight is funded by a mixture of private and public funds. Industrial sponsorship has been obtained from the following companies:

AEA Technology

Ford

Institute of Electrical Engineers

Jaguar

Marconi

Rolls Royce

Thames Water

The DTI (Department of Trade and Industry), NESTA (the National Endowment for Science Technology and the Arts) and the DfEE (Department for Education and Employment) have provided funds.

Phase 1 has cost in the region of £650k

Phase 2 (September 2001 – June 2005) aims to reach every secondary school in England and Wales. It will require significant government funding as well as industrial sponsorship.

