Recommendations on *The Curriculum from 5-16*

Schools Technology Forum

1. The Purpose, Process, Resource concept of Technological Capability, concerned as it is not only with developing *understanding* of the real world but in developing individuals who are capable of *influencing* the real world through autonomous decision, action and communciation, should be regarded as central to the process of general education for all. Consequently the need to develop technological capability should:

a) be reflected in a curriculum policy statement for each school.

b) inform the planning of individual subjects curricular areas and integrated curricula.

2 . The implementation of the integrating curricular policies mentioned above will require the strongest possible teams of committed and experienced teachers. Consequently, staff development ranging from initial training to appropriate forms of continuing in-service training will need to be provided and kept up to date to meet continually changing circumstances.

3. The trend towards a greater emphasis on 'process activities' in education should be reflected in the design of examinations.

4. A greater emphasis on the 'purpose' and 'process' of technological capability might be particularly relevant in dealing with the issues raised by the need for equality of opportunity between the sexes and to meet the problems of ethnic minority groups as well as meeting the needs of pupils of different ability levels.

5. The following recommendations arise from the consideration of Essential Issues:

a) *Information Technology* — a special and very detailed study needs to be made of Information Technology, with special attention being paid to its 'purpose, process and resource' implications in every part of the curriculum.

b) *Education in Economic Understanding* — 'mini-enterprise' projects should be encouraged as an excellent means of bringing economic issues to the fore simultaneously with the development of technological capabiliity.

c) *Preparation for the World of Work* — great care should be taken when providing for educational development to avoid encouraging unbalanced attitudes towards isolated and narrow contexts for technological activity, e.g. microelectronics or particular industrial enterprises.

d) *Careers* — careers education relating to technology should be based on pupils' personal experiences. Efforts should be made to identify and provide personal experiences which, appropriate to age, help children to identify with the realities of activities in adult careers. This experience is as important and effective for girls as for boys.

e) *Equal Opportunities* — all courses should be equally available and acceptable to both sexes. However, diversity of 'purpose' should be built in to allow for different interests and aspirations of individual pupils, be they brought about by differences of gender, ability, race or, simply, personality traits.

6. The following recommendations arise from a consideration of the section dealing with 'Areas of Learning and Experience'.

a) The 'creative' element should be seen as being common to all areas of learning — not exclusively the 'aesthetic'.

b) *Technological* literacy must be developed if the population is to be in a position to exert democratic control over its own future.

c) The teaching of mathematics should place greater emphasis on mathematical modelling as an aid to the solution of practical technological problems.

d) As a part of their scientific experience every pupil should become involved in making decisions in the design process based on the acquisition and consolidation of scientific concepts.

e) The section on Technological experience is welcomed unreservedly.

7. Case studies should be undertaken and published which will identify and illustrate diverse examples of technological activity which exemplify the inter-related use of skills, knowledge and concepts.

8. The Forum recommends that due emphasis is placed on the need to foster positive attitudes in pupils engaged in technological activities.

9. Curriculum models should be identified which enable the full breadth of technological experience and understanding to be included with different organisational schemes. Experience of projects in TVEI could provide some exemplar materials.

10. Concentrated efforts should be made to raise the level of importance allocated to the practical curriculum.

a) as a vehicle for bringing relevance of the outside world to the education of the individual, and

b) as a vehicle for the general education of *all* pupils, including the less able.

The Forum believes that this is a field in which extensive research into present successful practice would be very informative and of great value to teachers working in this area if case studies could be published.

11. There should be sufficient differentiation in curricular provision to enable both high and low ability pupils to maximise on their achievements in terms of technological capability. Research into current successful practice would provide illustrative material for teachers planning their schemes.

12. The Forum believes that there is an urgent need for research into the delineation of the progressive disciplines of Technology in education.

13. Close collaboration between schools and further and higher education is needed if there is to be effective progressive and continuous development of technological education. A detailed examination should be undertaken of the interface and transfer characteristics between school, college and employment. This should be undertaken with a view to minimising the constraints imposed on teachers by assessment and selection processes.

14. The Forum sees as a matter of urgency the need to develop means of