
DOUBLE AWARD BALANCED SCIENCE

The following organisations
support the development of balanced science courses

Association for Science Education
Association of Principals of Colleges
Council for National Academic Awards
Girls' Schools Association
Headmasters' Conference
Institute of Physics
National Association of Head Teachers
Royal Society of Chemistry
Secondary Heads Association
Secondary Science Curriculum Review
Society of Education Officers
Standing Conference on Schools' Science and Technology
Standing Conference on University Entrance
The Engineering Council
The Fellowship of Engineering
The Royal Society

June 1987

Foreword

In 1985 the Department of Education and Science produced a clear policy statement, 'Science 5-16: A statement of policy', as a basis for action. The general thrust of the statement for a move in the longer term towards combined or integrated courses leading to a GCSE double award in science is an aim which has not yet been fully realised.

The rapid advance in technology permeates everyone's life; we believe that a broad understanding of the impact of science can help people to reap the benefits of living in an advanced industrial society and to understand the needs of others in less developed countries.


We are delighted therefore that so many organisations have at this time agreed to come together to express publicly their support for double award balanced science in order to give its development a coordinated push on a national basis.



Sir Francis Tombs FEng
Chairman of The Engineering Council



The Engineering Council
10 Maltravers Street
London WC2R 3ER



Professor Jeff Thompson
Chairman of SSCR Steering Committee



Secondary Science Curriculum Review
Newcombe House, 45 Notting Hill Gate
London W11 3JB

WHAT IT IS

Double Award Balanced Science: Statement of Support.

The subscribing organisations support the development of balanced science courses, for all students up to the age of 16, incorporating biology, chemistry and physics. Such courses encourage the development of science processes and skills, including practical problem solving, in contexts that emphasise the everyday and industrial applications of science and technology. They also seek to be student friendly developing personal capability and vocational understanding.

Balanced science courses take a variety of forms, occupy about 20% of curriculum time, and successful candidates are awarded two GCSE subject grades. The joint signatories consider that suitable courses of this kind are appropriate for all students, including those who wish to pursue the sciences, medicine, technology and engineering related studies in further or higher education.

WHY IT HELPS

These developments:

- ◆ enable a more balanced curriculum to be established;
- ◆ overcome the problems that students have in choosing subjects for study in 4th and 5th years in schools;
- ◆ provide a common base for further study;
- ◆ keep job and career opportunities open for all students and particularly girls;
- ◆ increase the pool of students available for science, technology and engineering related employment;
- ◆ help to create over a period of time a scientifically and technologically literate society.

SCIENCE 5-16

This statement is matched by the ideas developed by the Department of Education and Science and the Welsh Office in their publication 'Science 5-16: A statement of policy' where in paragraphs 81, 76 and 84 it states:

“the aims of this paper imply more radical changes for pupils of all abilities than simply pruning the content of existing physics, chemistry and biology courses to provide more room for investigative, applied and problem-solving aspects...”

“within the maximum allocation of 20% of total curriculum time, each pupil is entitled to a programme of study which, however it is organised, will incorporate substantial elements from each of the main three sciences. New ways need to be found of translating that entitlement into reality. It is clear that this requires a radical reappraisal of current provision...”

“The Secretaries of State hope that LEAs and schools, in considering their future policies for science education in the fourth and fifth years, will give detailed consideration, in the light of the evidence of accumulated experience, including that arising from the Secondary Science Curriculum Review, to the full range of options which are open to them, such as better coordinated teaching of the three separate subjects; grouping these subjects into courses in physical science and biological science; integrated science; and modular courses.....change is needed, and the case for a move in the longer term towards combined or integrated courses leading to double certification is a powerful one.”

**SUPPORTING
STATEMENTS**

“The Secondary Examinations Council supports the emergence of GCSE syllabuses which reflect the principles espoused by 'Science 5-16' and which fit within the framework set by the National Criteria. The Council wishes to see more pupils studying science to 16 and believes that the double award approach to broad and balanced science should produce more young people motivated and suitably prepared to take A level courses in science and technology subjects.”

Sir Wilfred Cockcroft, Chairman of the Secondary Examinations Council

“Double award balanced science can clearly make a valuable contribution to the uptake of science in the schools; many universities already recognise this and will incorporate this qualification in their entrance requirements. We are sure that others will quickly follow suit.”

Professor Berrick Saul, Chairman of the Standing Conference on University Entrance

“I warmly welcome the development of double award balanced science as a means of improving the general level of science education in schools and preparing more of our young people - especially girls - for further study in science, engineering and related subjects. CNAA accepts double award balanced science in fulfilment of its general entry requirements, and will encourage polytechnics and colleges to include it in course entry requirements.”

Dr Malcolm Frazer, Chief Executive of the Council for National Academic Awards

“As Chairman of the SCDC and as a university physicist, I give my whole-hearted support to double award balanced science courses. Not only will they, at one extreme, serve to increase the scientific literacy of society as a whole but, at the other, they will provide an excellent foundation for A level courses. It is important that they are widely introduced with the utmost urgency.”

Professor Roger Blin-Stoyle, Chairman of the School Curriculum Development Committee