

Mathematics should no longer be a compulsory subject for all pupils beyond the age of 11

Introduction to Secondary School Teaching Task 1 – The National Curriculum for Mathematic

English, Science and Mathematics are the only three subjects taught and assessed as core in Britain. The advantages of English and Science are obvious. Maths on the other hand, is seen by many as boring and irrelevant. Students are required to learn maths right up to age 16. Are we right in making this level of maths compulsory? Is it, in fact, as valuable as English and science in today's culture? After all, everybody has access to a computer which can not only analyse raw data at the click of a button, but even solve most mathematical problems you would come across.

I would argue that maths is indeed as crucial to everyday life as any other subject, though not necessarily in its current form as taught to children from 11-16. The Smith report asserts that "mathematics is fundamentally important in an all-pervasive way, both for the workplace and for the individual citizen." The Mathematics curriculum covers a lot of basic material which is designed to equip learners for what they will face in their place of work, finances and ordinary household tasks. These include basic mental arithmetic and rounding, which are essential for budgeting, financial planning and even shopping. A thorough grasp of concepts like percentages and ratios is also helpful (e.g. for calculating tax), and yet even simple sums are proving too difficult for a large proportion of today's adult population. According to the Moser report, "one in three adults in this country cannot calculate the area of a room that is 21 by 14 feet, even with the aid of a calculator", and a quarter of adults couldn't work out their change in a simple grocery transaction.

I feel that it would be a better use of students' time to narrow the curriculum to those aspects which will definitely be useful to the students in later life, and make sure they thoroughly understand them, rather than covering a wide range of topics with not enough time devoted to each to give sufficient understanding.

The findings of the report *Mathematical Skills in the Workplace* suggest that GCSE Mathematics itself now seems to many employers to be an inadequate preparation for the growing mathematical needs of the workplace. The perception is that students are learning most of their mathematics in a vacuum, with little attention given to any sort of mathematical modelling, or to a range of problems set in real world contexts and using real data. The Smith Report

I feel that the wider mathematical understanding required here could be incorporated into a more advanced qualification which was optional, while the universally compulsory year 11 exam would focus mainly on numeracy and statistics. It is essential for everyone to have a grounding in mental arithmetic (including estimation), percentages, decimals and fractions, weights and measures, basic probability, calculator and spreadsheet skills and basic data handling (including graph interpretation). However, for advanced students, I think the optional course should contain a stronger emphasis on topics such as algebra, trigonometry and geometry, which would aid more specialised jobs or further mathematics education.

Bibliography

A Fresh Start Improving Literacy and Numeracy by Sir Claus Moser of the Basic Skills agency

Making Mathematics Count by Adrian Smith

Mathematical Skills in the Workplace (Celia Hoyles, Alison Wolf, Susan Molyneux-Hodgson and Philip Kent – June 2002, Institute of Education and STMC