

**Spelthorne College**  
**Reinspection of science, mathematics and information technology: November 1998**  
**Report from the Inspectorate**  
**The Further Education Funding Council**

## **THE FURTHER EDUCATION FUNDING COUNCIL**

*The Further Education Funding Council (FEFC) has a legal duty to make sure further education in England is properly assessed. The FEFC's inspectorate inspects and reports on each college of further education according to a four-year cycle. It also assesses and reports nationally on the curriculum, disseminates good practice and advises the FEFC's quality assessment committee.*

### **REINSPECTION**

*The FEFC has agreed that colleges with provision judged by the inspectorate to be less than satisfactory or poor (grade 4 or 5) should be reinspected. A college may have its funding agreement with the FEFC qualified to prevent it increasing the number of new students in an unsatisfactory curriculum area until the FEFC is satisfied that weaknesses have been addressed.*

*Reinspections are carried out in accordance with the framework and guidelines described in Council Circulars 97/12, 97/13 and 97/22. Reinspections seek to validate the data and judgements provided by colleges in self-assessment reports and confirm that actions taken as a result of previous inspection have improved the quality of provision. They involve full-time inspectors and registered part-time inspectors who have knowledge of, and experience in, the work they inspect. The opinion of the FEFC's audit service contributes to inspectorate judgements about governance and management.*

### **GRADE DESCRIPTORS**

*Assessments use grades on a five-point scale to summarise the balance between strengths and weaknesses. The descriptors for the grades are:*

- *grade 1 - outstanding provision which has many strengths and few weaknesses*
- *grade 2 - good provision in which the strengths clearly outweigh the weaknesses*
- *grade 3 - satisfactory provision with strengths but also some weaknesses*
- *grade 4 - less than satisfactory provision in which weaknesses clearly outweigh the strengths*
- *grade 5 - poor provision which has few strengths and many weaknesses.*

*Audit conclusions are expressed as good, adequate or weak.*

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## **Spelthorne College South East Region**

### **Reinspection of science, mathematics and information technology: November 1998**

#### **Background**

Spelthorne College had its first quadrennial inspection between September and December 1996. The findings were published in inspection report 37/97. Provision in science, mathematics and IT was graded 4.

The strengths of the provision were: the effective integration of key skills with other aspects of work on GNVQ courses; good examination results and retention rates for GCSE mathematics; good resources for all subjects. There were examples of teachers successfully using differing teaching methods to match students' differing levels of ability and there was a high level of satisfaction amongst students on the main vocationally-related course. The main weaknesses identified at inspection were: inadequate schemes of work; much poor teaching which failed to stimulate students or to offer them sufficient challenge; the lack of a systematic approach to assessment, setting homework or recording students' progress; poor levels of achievement and poor retention rates on all two-year programmes. Teachers worked independently and there was little sharing of experience or good practice.

The provision was reinspected in November 1998. Twelve lessons were observed, including several practical sessions. The inspector scrutinised a wide range of students' work, held meetings with staff and students, examined achievement and retention data and looked at college documentation including the self-assessment report and the summary of action taken to address weaknesses since the earlier inspection.

#### **Assessment**

The college has taken significant action to improve the quality of provision in science, mathematics and IT. Almost all the teaching staff in science and mathematics have been replaced and a new senior manager has been appointed to lead an enlarged curriculum area comprising science, mathematics and humanities. IT is now managed within business studies. The curriculum and the pastoral responsibilities of the science and mathematics staff have been reviewed and a new line management structure established. Staff meet regularly and work as an enthusiastic and cohesive team. Of the lessons observed, 50% had strengths which clearly outweighed weaknesses; 42% were satisfactory and 8% were less than satisfactory. In the better lessons, teachers pitched the work at an appropriately challenging level, used a variety of teaching and learning methods to stimulate and maintain students' interest, checked regularly that learning was taking place, used handouts and teaching aids well, and provided different and appropriate methods of working and resources to enable students of varying abilities to make effective progress. In some lessons, the teaching was tedious, teachers made poor use of students' answers to questions or there was no logical development of the work. Overall, however, the quality of the teaching and learning had improved since the first inspection. Assessment is now carefully planned and organised. Homework is set regularly. It is marked and returned promptly with good written and verbal feedback to students about how they might improve their work. Retention and achievement rates have improved significantly in most subjects. They are generally just above or below the national averages for sixth form colleges. The main

exception is that of GCSE mathematics. Students in daytime classes performed badly in 1998, largely due to their poor preparation of one particular paper. Steps have been taken to address this in the current year. Evening class students achieved very good results. Results gained by adult students in NVQ level 2 in IT were particularly good. Accommodation for science was good but has been further improved by better organisation of storage space and improved housekeeping. Adequate levels of science and mathematics equipment have been maintained but there is a lack of modern physics equipment. Students' access to computers in science and mathematics has been improved but is still inadequate. Recent investment in computers to support IT courses has greatly improved the quality of, and access to, software and hardware. Small classes continue to be common. They unduly increase the cost of provision and have an adverse effect on students' experience. Retention rates in GCE A level biology are still poor. There are significant limitations to the value-added methodology used within the college at present. The regular student review system is weak because subject staff do not give it enough of their time, students' setting of targets is not thorough or systematic enough and not all students feel the system is of any great value. There are no effective links between staff teaching evening classes and subject staff working in the college during the daytime.

**Revised grade:** science, mathematics and information technology 3.

**A summary of achievement and retention rates in science, mathematics and information technology, 1996 to 1998**

| Type of qualification                         | Level | Numbers and outcome  | Completion year |      |      |
|-----------------------------------------------|-------|----------------------|-----------------|------|------|
|                                               |       |                      | 1996            | 1997 | 1998 |
| GCSE mathematics (students aged 16 to 19)     | 2     | Expected completions | 72              | 46   | 42   |
|                                               |       | Retention (%)        | 89              | 72   | 95   |
|                                               |       | Achievement (%)      | 60              | 39   | 14   |
| GCSE mathematics (19+ evening class students) | 2     | Expected completions | 36              | 20   | 10   |
|                                               |       | Retention (%)        | 50              | 70   | 80   |
|                                               |       | Achievement (%)      | 67              | 64   | 71   |
| NVQ IT                                        | 2     | Expected completions | *               | *    | 21   |
|                                               |       | Retention (%)        | *               | *    | 85   |
|                                               |       | Achievement (%)      | *               | *    | 94   |
| GCE A level biology                           | 3     | Expected completions | 18              | 21   | 15   |
|                                               |       | Retention (%)        | 22              | 10   | 47   |
|                                               |       | Achievement (%)      | 75              | 100  | 83   |
| GCE A level chemistry                         | 3     | Expected completions | 8               | 7    | 6    |
|                                               |       | Retention (%)        | 13              | 43   | 83   |
|                                               |       | Achievement (%)      | 100             | 67   | 75   |
| GCE A level mathematics                       | 3     | Expected completions | 28              | 22   | 10   |
|                                               |       | Retention (%)        | 57              | 55   | 80   |
|                                               |       | Achievement (%)      | 100             | 100  | 100  |
| GCE A level physics                           | 3     | Expected completions | 4               | 3    | *    |
|                                               |       | Retention (%)        | 25              | 100  | *    |
|                                               |       | Achievement (%)      | 100             | 67   | *    |

*Source: ISR (1996 and 1997), college (1998)*

*\*course not running*