

# Biology

Overall the quality of provision in biology is **very good**.

## Strengths

- Standards in 1999 and 2000 were well above the national average; in 2001 they were very high.
- Students perform significantly better in biology than would be predicted from their prior attainment.
- Overall, teaching is very good.
- Advanced extension work is offered for the higher attainers.

## Areas for improvement

- The range of learning opportunities is a little narrow and has too few opportunities for independent work, research and problem-solving activities.
- There is insufficient monitoring and evaluation of the quality of teaching.

Standards at A-level have been consistently well above the national average in recent years and standards in 2001 were very high. Standards in 2002 dipped but were still clearly above recent averages. The students achieve very well and have consistently performed significantly better in biology than would be predicted from their prior attainment.

The standards of work of current Year 13 students are well above average – much is of high quality. They make very good progress as a result of well-structured and thorough teaching. In an introductory lesson on the kidney, students made very good progress in identifying the gross structure of the kidney, using an information sheet provided by the teacher. Discussion with students showed a well above average understanding of recent work on the structure and function of nerves, including neurotransmitters and their control.

Students in Year 12 have only recently begun their course but are also making very good progress. Their understanding of work on the structure of DNA and its replication and translation to produce proteins is well above average. They have developed competent practical skills, using microscopes with camera attachments effectively.

Teaching is very good overall, and this is reflected in very good learning and the progress the students make. The key features of effective teaching are well-planned and structured lessons, conducted at a brisk pace, which involve a variety of activity to bring about learning. Teachers have a very good knowledge of their subject,

explanations are clear, and questioning is used effectively to check upon and develop students' understanding. In some lessons, good handouts were used which required students to extract information. Homework is set regularly and is used effectively to promote students' learning. Advanced extension work provides extra challenge for higher attaining students. Students feel well supported with the help that teachers give, and know that teachers are approachable. ICT is used to support learning but the use is more on one site than the other. Whilst teaching is very good overall, opportunities are not always taken to use more problem-solving approaches and to develop students' skills in independent working and research.

Students make very good progress and learn well. Their attitudes are very positive, they are mature in their approach and they respond very well to the learning opportunities provided. They work well both individually and in groups and carry out practical tasks safely and accurately. Retention rates are high.

Work in biology is well led and managed in the two schools and this is reflected in the high standards achieved and there has been very good progress since the last inspection. There is scope, however, for greater collaboration to ensure that the most effective teaching methods are shared between all staff across the two schools. To this end it would be beneficial to develop a more detailed, common scheme of work, which incorporated a suitable breadth of learning opportunities. There is some monitoring of teaching and learning as part of performance management, but good practice is insufficiently shared.