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Mr D Hugill Headteacher Archbishop Temple C of E High School and Technology College St Vincent's Road Fulwood Preston Lancashire PR2 8RA

Dear Mr Hugill

Ofsted survey inspection programme – Science

Thank you for your hospitality and co-operation, and that of your staff, during my visit on 20 - 21 September to look at work in science.

As outlined in my initial letter, as well as looking at key areas of science, the visit had a particular focus on transition within and between phases (KS2-KS3-KS4-post16); and the range of learning experiences and status of SC1.

The visit provided valuable information which will contribute to our national evaluation and reporting. Published reports are likely to list the names of the contributing institutions but individual institutions will not be identified in the main text. All feedback letters will be published on the Ofsted website at the end of each half-term.

The evidence used to inform the judgements made included: interviews with staff and learners, scrutiny of relevant documentation, students' work and observation of lessons.

The overall effectiveness of science was judged to be good.

Achievement and standards

Achievement and standards are outstanding.

- The vast majority of students achieve at least grade C in GCSE sciences or equivalent qualifications. In 2007, of those entered for the different qualifications, 97% gained grades A\*-C in biology, chemistry and physics; 85% achieved A\*-C in double award science and 87% passed the BTEC first diploma in science.
- In Key Stage 3 national tests the proportions of students achieving at least level 6 are very high. For example, in 2007 over 80% achieved this.

- Contextual value added measures, which take account of students' prior attainment and circumstances, show that students consistently make good progress in science during Key Stage 3.
- Behaviour is very good.
- Attendance is very good.

Quality of teaching and learning

Teaching and learning are good.

- Teachers are knowledgeable, committed and enthusiastic.
- Very good use is made of practical and experimental work.
- Lessons are well planned and structured and a good pace is maintained.
- Students are attentive, engaged and keen to do well.
- Teachers have high expectations of all students, including the less able.
- Some good use is made of questions and answers to check prior knowledge and understanding.
- Teachers are quick to respond on the rare occasions when students' attention wanders. They are also astute at recognising students' misconceptions or misunderstandings, and they ensure that these are resolved.
- There is an appropriate emphasis on examination requirements, and particularly good reinforcement of key points.
- Effective use is made of individual targets. Pupils know the levels or grades they are aiming for, and what they need to do to achieve these.
- Several teachers have relevant industrial experience which is valuable for teaching on the vocational BTEC first diploma course.
- Although electronic whiteboards were seen in use in some lessons, there is limited use of information and communications technology (ICT) in teaching and learning overall. In some of the laboratories the length of the room made it difficult to see the whiteboard clearly from the back.
- Marking of students' work varies in quality, and comments are not always clearly focused on improving learning in science.
- No unsatisfactory teaching was observed.

Quality of the curriculum

The curriculum in science is outstanding.

- There is an excellent range of courses at Key Stage 4, including the triple science GCSE option (biology, chemistry and physics), core and additional science GCSEs, and the BTEC first diploma in science. These meet the needs of a very wide range of students.
- There are some very good enrichment opportunities. For example, a project last year included a link with the National Space Centre and video conferencing.
- Additional courses have been offered to gifted and talented students, such as GCSE astronomy, although low take up prevented the course running this year.
- At present there are few industrial links for the BTEC course, but there are plans to rectify this.

## Leadership and management

Leadership and management are good.

- There is very good teamwork.
- Some good use is made of available data. For example, an analysis of the marks awarded for different Key Stage 3 national test questions has been used to consider teaching approaches to different topics.
- Appropriate intervention strategies are planned for under-achievers.
- There is a very positive approach to curriculum development.
- Development planning is appropriately focused on raising attainment further, for example increasing the proportion of A and A\* grades at GCSE.

## Subject issues

Provision for scientific enquiry and for transition between stages is good.

- There is much practical and experimental work in lessons.
- There are well established links with feeder primary schools. Science teachers are involved in the general transition arrangements.
- The Year 6 transition day focus on 'Fit and healthy' included an element of science.
- After the national tests in Year 9 good use is made of teaching time to ensure that students are well prepared for Key Stage 4 work.
- The triple science GCSE option (biology, chemistry and physics) offers good preparation for those who might wish to study A level sciences.
- The BTEC first diploma offers the possibility of progression to an advanced level vocational science course post 16.

## Inclusion

Inclusion in science is good.

- In lessons there is appropriate teaching assistant support for individuals with additional needs.
- There are very good opportunities for less able students to achieve very well in science through the provision of the BTEC first diploma.
- There are intervention strategies in place to support underachieving students.

Areas for improvement, which we discussed, included:

- improving the quality of the laboratory accommodation
- developing further the use of ICT in teaching and learning
- improving marking to ensure consistency of practice, and a focus on helping students to improve their work and learning in science.

I hope these observations are useful as you continue to develop science in the school.

As I explained in my previous letter, a copy of this letter will be sent to your Local Authority and will be published on the Ofsted website. It will also be available to the team for your next institutional inspection.

Yours sincerely

Ruth James Her Majesty's Inspector