Alexandra House 33 Kingsway London WC2B 6SE T 08456 404040 F 020 7421 6855 www.ofsted.gov.uk enquiries@ofsted.gov.uk



13 July 2009

Mr R Howard Headteacher Heanor Gate Science College Kirkley Drive Heanor Derbyshire DE75 7RA

Dear Mr Howard

Ofsted survey inspection programme – Information and communication technology (ICT)

Thank you for your hospitality and co-operation, and that of your staff, during my visit on 19–20 May 2009 to look at work in ICT.

As outlined in the initial letter, as well as looking at key areas of the subject, the visit had a particular focus on the quality of assessment in ICT.

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 students, scrutiny of relevant documentation, analysis of students' work and observation of seven part lessons.

The overall effectiveness of ICT was judged to be good.

Achievement and standards in ICT

Standards are above average. Achievement is good.

- Year 7 students joining the college arrive with a variety of experiences in ICT. Some have had exposure to a range of software while others have limited experience. Overall attainment on entry in ICT is broadly average.
- Students make good progress during Key Stage 3 so that by the time they complete Year 9 standards in all aspects of ICT are above average.
- At Key Stage 4 ICT is an option and therefore not all students pursue a qualification in ICT. Students are able to choose between GCSE short

or full course, IT diploma at foundation or higher level and for a few an appropriate Level 1 course is available. Business and Communication Systems is offered as an alternative to a discrete IT course. Taking into account the students' starting points along with an appropriate course this results in good achievement for those students that opt for one of the ICT related courses. For others ICT is not accredited but they make satisfactory progress.

- In the sixth form, AS and A2 ICT is offered and from 2008 the Advanced ICT Diploma. Numbers are small in all the sixth form courses but students have reached or surpassed their target grades and this represents good achievement.
- Attitudes to learning and behaviour are mostly good. Students are aware of the need to keep themselves safe when online and are able to explain some of the ways in which they might do so. Students questioned were aware of emails or web sites attempting to obtain personal information or the potential of viruses being transferred via the internet.

Quality of teaching and learning of ICT

Teaching and learning are good.

- Teachers have good subject knowledge which enables them to provide good individual support to students.
- The quality of activities planned was very good; taking prior learning into account along with aspirational targets. However, in a small minority of lessons, the planning was better than the learning seen taking place, this was because the pace of the lesson could have been improved.
- In some lessons there are insufficient opportunities for students to develop independent learning skills.
- The use of ICT to improve learning in other subjects is generally better than when ICT is taught as a subject. This is often because the emphasis in taught ICT lessons is more on skills acquisition or meeting the accreditation requirements of the qualification whereas in other subjects ICT is used as a vehicle for promoting deep learning. For example in a religious education lesson an animation was being developed using a standard template to allow students to present the story of the founding of the Khalsa.
- Lessons are taught in an encouraging and positive atmosphere, and the use of ICT to reinforce students' learning is effective.
- Opportunities provided for higher level competencies include the use of commercial grade software to manipulate graphics.
- Students are engaged in their learning and are eager to develop further.
- Assessment for learning, including guidance of what students need to do to improve, is embedded well in teaching

Quality of the curriculum for ICT

The curriculum is good.

- There is one hour a week of taught ICT at Key Stage 3. The curriculum
 is carefully designed to support students in developing their capabilities
 in using applications such as spreadsheets, databases and drawing in
 which they are weaker when they join the school. There are good
 opportunities for students to learn the principles of programming in
 Year 9.
- There is good provision for computer aided manufacturing. Year 8 students use a drawing application to design simple architectural plans. These skills are then reinforced in Year 9 where the software is used to design table lamps which are then cut out of plywood by a computer controlled laser machine.
- At Key Stage 4 there is a good choice of ICT courses plus a minimum of one lesson a week for those not opting to take an ICT qualification.
- In both key stages students are introduced to the concept of using technology to record changes with the use of data logging. Through the school's specialism, there has been a good investment in sensors: their wider use in the classroom by students is at an early stage but is covering National Curriculum requirements.
- There are plentiful opportunities for students to apply the skills they have learnt or have been taught in ICT lessons to improve learning when working in other subjects. Digital cameras and photo editing software are used exceptionally well in A level art and design to explore cubism along with other artists and designers. The outcomes realised are of a high commercial quality.

Leadership and management of ICT

Leadership and management are good.

- Specialist status in science is having a good impact on provision and achievement. There has been a substantial investment in ICT resources along with extensive training for teachers.
- Rigorous self-evaluation of provision by your senior leaders informs strategic planning. You have a good grasp of the college's strengths and weaknesses.
- Strong and effective leadership are driving improvements and the impact of this can be seen in students' better achievement. There is good capacity to improve ICT.
- The principles of 'best value' are applied. Attention is paid to seeking
 and responding to the views of students, parents and the wider
 community about the provision they would like to see from the college.
 The governors effectively challenge you and your leadership team on
 your spending plans and help ensure resources are used efficiently.
 The network manager has obtained further savings through
 negotiating with suppliers.

 The use of a virtual learning environment is still at an early stage of development. The development plan has identified the need to make greater use of the virtual learning environment to improve learning in the future.

Use of Assessment

The use of assessment is good.

- There is an outstanding system for collating assessments at the end of each unit of work and each term which enables the school to identify which students are on course to achieve their targets, which students are exceeding them and which students are falling behind.
- Arrangements are in place for monitoring different ICT teachers'
 assessments of students' work. These arrangements ensure grades are
 consistent and a reliable measure of the progress students are making.
- A series of strategies are available to support any students identified as underachieving in catching up.
- Tracking data is shared with parents via reports and telephone calls so that they are well informed about how well their child is doing.
- Students are very clear about how they are doing in relation to their target grades and what they still need to do to improve further.
- Good use of assessment is making an important contribution to improving achievement for all and particularly so for those that have opted to gain a qualification. For others the tracking monitors and assesses their skills and knowledge well.
- Considerable effort is put into assessing older students' work against the accreditation criteria of the qualification resulting in summary sheets showing their individual targets and areas to improve which the students can make reference to. This practise is also applied to Key Stage 3 students.
- Students' use of ICT in other subjects is not formally assessed although there is some informal feedback to the department. Consequently the ICT team is not fully aware of how well students are able to utilise the skills they have taught them when working in other subjects.

Areas for improvement, which we discussed, included:

- developing opportunities for students to work independently and on tasks which are of a challenge appropriate to their starting point
- developing systems to identify ICT related skills and competences of students being used across the curriculum and ensure that these are fed back to the ICT department.

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

As I explained in the 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

Ahson Mohammed Her Majesty's Inspector