Alexandra House
33 Kingsway
London
WC2B 6SE

T 08456 404040
F 020 7421 6855
enquiries@ofsted.gov.uk
www.ofsted.gov.uk

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Mrs J Baxter
Headteacher
Catcliffe Primary School
Rotherham Road
Catcliffe
Rotherham
South Yorkshire
S60 5SW

Dear Mrs Baxter

Ofsted survey inspection programme – Science

Thank you for your hospitality and co-operation, and that of your staff, during my visit on 11 May 2009 to look at work in science.

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 analysis of data, interviews with staff and pupils, scrutiny of relevant documentation, pupils' work and observation of lessons.

The overall effectiveness of science was judged to be good.

Achievement and standards

Achievement is good and standards are broadly average.

- Pupils start the Foundation Stage with skills which are often well below those typically found among children of their age. They leave the school with broadly average standards in science, having made good progress as a result of the good teaching they receive.
- Data which take into account pupils' prior attainment at Key Stage 1 and contextual factors show that during Key Stage 2 all groups of pupils consistently make above average progress in science during Key Stage 2.
- In 2008 the proportion of pupils reaching the expected level in science by the end of Key Stage 2 was very close to the national average. The proportion achieving the higher Level 5 was also similar to the national average.
- In lessons pupils are encouraged to contribute ideas and to take a pride in the quality of their work. The learning environment, varied activities and

opportunities to work with other pupils promote good personal development.
- Behaviour observed in lessons was very good. Pupils are polite and considerate.

Quality of teaching and learning of science

Teaching and learning are good.

- Teachers have very good relationships with their pupils. They are enthusiastic, encouraging and patient. They create a positive environment for learning which builds self-esteem and self-confidence.
- Lessons offer some good opportunities for investigative work. In one lesson, for example, pupils enthusiastically set about investigating the strength of different magnets. However, pupils' practical work is not always recorded.
- There are some good opportunities for collaborative group work, although on occasion groups are too large for all pupils to be actively involved.
- Teachers' classroom management is effective and this fosters the good attitudes to learning shown by pupils, who are motivated, attentive and keen to do well.
- Teachers make some effective use of question and answer to revise prior knowledge and reinforce learning.
- In science lessons pupils are encouraged to talk about their ideas with talk partners. This helps them to explore their own ideas and promotes development of thinking skills as well as reinforcing learning.
- There is an appropriate emphasis on the use of scientific vocabulary in lessons.
- Teachers do give some attention to planning science work to match pupils' different abilities, for example by setting more demanding objectives for more able pupils. However, this is not consistent.
- Teaching assistants contribute well to the lessons and support individuals and groups.
- There is some good use of information and communications technology in science. For example, in one lesson a microscope linked to a computer was used to show pupils the parts of a flower.
- Individual progress in science is recorded carefully. Appropriate individual targets are set, particularly in relation to investigative skills.

Quality of the curriculum

The curriculum in science is good.

- The school offers very good enrichment activities, including cross curricular enrichment activities which are relevant to science. These included a music workshop with a percussionist looking at the science of sound. A number of visitors have given talks and demonstrations on topics such as forces and flight. Groups of pupils have had the opportunity to visit museums, for example to see a 3D film about space exploration.
- The science club run by Year 5 pupils for Year 2 pupils encourages interest in science. During the inspection a group of children enjoyed using solar energy cells to power small fans. The Year 5 children carefully explained,

in simple terms, how this worked. They also asked questions to encourage the younger children to think and experiment, for example by checking what happened when the solar panels were obscured.
- There are very good links with a local specialist science college which has supported enrichment activities, the science club and other projects. Groups of Year 6 pupils have had the chance to learn science from sixth formers in the secondary school laboratories.
- In the Foundation Stage there are appropriate opportunities for children to develop knowledge and understanding of the world.
- Staff have worked hard to develop a theme based curriculum that really engages the interest and enthusiasm of their pupils. There is an overview plan to show how science is integrated for each class and year group but this is not yet fully embedded.
- The science, art and writing project (SAW) has encouraged teachers to look at science teaching in a creative way, linking it with arts and literacy. Some good examples of this approach were seen in the children's work.
- Opportunities are sought to involve parents in their children's learning, for example through a 'Rowdy Robots' project during school holidays. Evaluations of this were overwhelmingly positive.

Leadership and management of science

Leadership and management of science are good.

- Leaders and managers are committed to raising achievement and have adapted a theme based curriculum to this end. This is promoting good development of skills and greater enjoyment for pupils. However, the monitoring of the delivery of science through the new integrated curriculum is not sufficiently rigorous.
- The quality of teaching and learning in science is monitored through regular observations by yourself or the science co-ordinator, and feedback is given to help teachers improve their skills and knowledge.
- The science coordinator is effective in leading the development of science. A clear focus has been maintained on the importance of the investigative nature of science. Although there is no formal science self-evaluation or development plan it was clear from discussion that there are plans to improve science provision, for example through a closer focus on assessment and tracking.
- Few teachers have had recent science specific professional development opportunities.
- Good use is made of the specialist expertise available from the local specialist science college. The science co-ordinator attends local cluster meetings and cascades information to other teachers at in service events.
- Resources for teaching science are good.

Areas for improvement, which we discussed, included:

- further developing the monitoring of cross-curricular planning and delivery to ensure effective integration of all aspects of the science curriculum
- increasing the attention given in lessons to the different ways pupils' science work can be recorded

- improving lesson planning to meet individual needs through better use of assessment and tracking data.

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

As 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

Ruth James
Her Majesty's Inspector