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13 May 2011

Mrs J Pakes Headteacher Moorpark Junior School Park Lane Burslem Stoke on Trent Staffordshire ST6 1EL Dear Mrs Pakes

# Ofsted 2010–11 subject survey inspection programme: science

Thank you for your hospitality and cooperation, and that of the staff and pupils, during my visit on 12 May 2011 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 without their consent.

The evidence used to inform the judgements included: interviews with the headteacher and pupils; scrutiny of relevant documentation; analysis of pupils' work; and, observation of four part-lessons.

The overall effectiveness of science is inadequate.

#### Achievement in science

Achievement in science is inadequate.

- Standards in science at the end of Key Stage 2 are well below average, according to assessments carried out by teachers using science test papers from previous national tests. Very few pupils compared to the national picture attain the higher level, Level 5.
- Pupils' work in their science workbooks shows inconsistent and overall inadequate progress in developing the skills of science investigation and enquiry.
- Science makes a satisfactory contribution to pupils' personal development. Pupils enjoy working together on investigations. Pupils are genuinely interested in science. This was well illustrated by pupils who ran an afterschool science club, who showed pride in their presentations on gravity and the solar system.

## Quality of teaching in science

The quality of teaching in science is inadequate, overall.

- Teaching has positive features. The lessons observed were practical in nature with hands-on experiences prepared for pupils. However, investigations were too closely directed and heavily structured with far too much that was already decided for pupils, giving them too little opportunity to design, plan, execute and record their own investigations. Just occasionally, teachers took on pupils' ideas for further lines of enquiry.
- Although some good, open-ended questioning was observed, too often teachers focused on teaching science knowledge rather than the development of pupils' reasoning and the thinking behind their answers. Pupils' written work was too often based on photocopied worksheets that restricted their responses. The marking of pupils' work in their workbooks was inconsistent and generally poor, sometimes no more than ticks on a page and rarely involving pupils in evaluations.
- Learning objectives for lessons were too frequently about what was to be done rather than what was to be learned.

#### Quality of the curriculum in science

The quality of the curriculum in science is satisfactory.

- Science is based firmly on the Qualifications and Curriculum Authority's guidance for science and, together with the school's planning guidance, ensures pupils follow the National Curriculum for science. The science curriculum is, therefore, sufficiently broad and balanced.
- Teaching materials are selected from a range of commercial schemes and include video resources to be used with interactive whiteboards. Resources are well organised.
- The school gives consideration to integrating elements of science within other subjects, such as physical education, and several school initiatives, such as creating a school garden, provide starting points for science. Ecology is promoted. The school is registered as an Eco School and has achieved the Eco Award (Bronze). An after-school science club runs for at least part of the school year.
- The school has not used the freedom to develop the science curriculum following the government's decision no longer to require a test of science in the national, end of Key Stage 2 tests. Nothing has changed. Without development, the science curriculum is in danger of lacking in relevance to pupils. For example, there is no increased focus on investigations and no consideration of how the unique scientific heritage of the area can be incorporated into the science curriculum.

### Effectiveness of leadership and management in science

Leadership and management in science are inadequate.

- Science has no effective leadership. You took over nominal leadership for science when the previous science leader left the school. However, with all your additional responsibilities, this is not proving an effective arrangement.
- There is an adequate policy for science but this is not being followed fully. There is no monitoring of teaching quality, planning or pupils' work in science. Pupils' progress is not tracked and targets are not set. There has been little continuing professional development training for science and there is no effective improvement plan.

#### Areas for improvement, which we discussed, include:

- improving the leadership and management of science. Appointing a subject leader for science as soon as possible. Instituting key leadership and management procedures including the monitoring of lessons, teachers' planning and pupils' work in science. Also, developing systems for assessing pupils' progress on a regular basis, and for using this information to set targets for pupils and in developing an appropriate improvement plan for science
- developing a school view on what good science teaching for primary-age pupils looks like, with a clear emphasis on the development of the skills of scientific investigation, by visiting other schools with good practice
- creating a curriculum for science that is richer in its links with the scientific heritage of the Potteries and is more firmly rooted in the skills of Sc1.

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

As I explained previously, a copy of this letter will be published on the Ofsted website. It may be used to inform decisions about any future inspection. Except in the case of academies, a copy of this letter is also being sent to your local authority.

Yours sincerely

Brian Padgett Her Majesty's Inspector