

Science Governor Handbook

September 2009

Thank you for volunteering to be the Science Governor. Your role enables the governing body to fulfil its strategic responsibilities by monitoring and reviewing the delivery of Science in your school.

What does the Governing Body need to do?

The governing body and the Headteacher are responsible for the overall direction of the school and the setting of high standards and expectations of staff and children. The Headteacher and staff are responsible for the day- to – day management and implementation of policies.

You and your colleagues on the governing body make an enormous voluntary commitment of time and energy to your school. This commitment is concentrated upon the raising of standards. Together, the governing body and the Headteacher share responsibility for strategic planning, including the setting of realistic yet challenging school targets for Science. Not all schools with children in Key Stage 2 will achieve the national target. Some schools ought to do better and some might not quite be able to manage it. What is really important is that in your school there is a clear upward trend even if there is some fluctuation from year to year.

You need to be familiar with the National Curriculum Programme of Study for Science and key issues relating to managing it at school level and to keep your colleague governors informed.

The Science Governor

You will need to provide a link between your governing body, its committees and the staff of the school that you serve. In the first instance, this might mean:

- Finding out about current policy and practice for the teaching of Science
- Ensuring that all governors are familiar with the Science curriculum
- With the Headteacher, reporting to your governor colleagues on how Science is going in your school
- Supporting and promoting the involvement of parents in Science.

As the Science governor, you might:

- Try to attend some of the whole school training sessions devoted to Science
- Meet with the Science subject leader regularly e.g. three times a year to discuss how Science is going in the school
- Talk to the Headteacher from time to time about school Science issues

- Act as a link between the Science subject leader and the governing body.
- Observe lessons and gain a greater understanding of the key features of Science and the way it is taught.

And you might:

- Include a section in the annual Governor's Report to Parents about Science
- Find out about any local activities and ask how governors can help
- Be involved in the school's attempts to inform parents and involve them in their children's learning in Science: e.g. you could help organise and promote an open day or parents' evening to help families to know more about the school's approaches to Science
- Support the school with running extra curricular activities e.g. Science club

The Science curriculum

For the youngest children, up to the age of five, schools follow the Foundation Stage curriculum. This covers the following areas:

- Communication, language and literacy
- Problem Solving, Reasoning and Numeracy
- Knowledge and Understanding of the World
- Creative development
- Physical development
- Personal, Social and emotional development

Aspects of science can be identified in all areas but more specifically in the Knowledge and Understanding aspect.

The Primary Science curriculum for Science is divided into 4 attainment targets they are as follows:

- **AT1 Scientific enquiry**
- **AT2 Life Processes & Living Things**
- **AT3 Materials and their Properties**
- **AT4 Physical Processes**

In terms of level judgments there is a greater weighting for AT1 against the other attainment targets. In Key Stage 1 AT1 (which includes using and applying scientific skills) has a weighting of 3 against 1 for the other attainment targets and in terms of Key Stage 2 AT1 has a weighting of 2 against 1 for the other attainment targets.

The table below shows the Key Stages and the age groups, Science assessments and expected levels pupils are expected to achieve.

Key Stage	Age group	Year group	End of Key Stage assessments	Expected Levels
Foundation Stage	Age 3-5	Nursery & Reception	Completion of Foundation Stage Profiles	Not defined
Key Stage1	Age 5-7	Year 1-2	KS1 Assessment	L2 average L3 above average
Key Stage2	Age 7-11	Year 3-6	KS2 Assessment (TA from 2010)	L4 average L5 above average

Pupils are expected to make **at least 2 levels** progress from the end of KS1 to the end of KS2.

Target Setting

The DCSF (Department for Children, Schools and Families) has agreed a Science target with every Local Authority. Your school's governing body, along with the Headteacher and staff, will have set targets for your school for the year which both challenging and realistic.

OFSTED inspections

- Your school will be routinely inspected every three years, although this could be more frequent if problems or concerns are identified
- Inspectors may want you to discuss the following four main areas, consider what the answers would be in terms of science:
- **What are the strengths of the school and do you know what needs to be improved?**
- **How do you help steer the direction in which your school is moving?**
- **How do you support and challenge your school?**
- **Do you fulfil your statutory requirements?**

Monitoring and evaluating

You should always remember that you are not acting as a teacher, nor an inspector, but as a source of support and a critical friend of the school. If you are going to visit a science lesson, don't forget the possible apprehension some teachers feel if someone watches their lesson. It is also important to remember that the purpose of lesson observations is to gather information, not to make judgments about the quality of teaching).

Governors do not need to understand the detailed requirements for the teaching of a particular subject, but they must be able to ask the Headteacher to explain how they came to allocate time in the school day, how the school

manages subjects which may be taught in a cross curricular way and how proper provision is made for both gifted and talented pupils as well as those with additional needs.

What makes Quality First teaching in Science?

The Key features of Quality First Teaching in Science in lessons are that they are:

- Lively and engaging
- Challenging with high expectation
- Allowing opportunities to apply skills
- Well planned with skills & knowledge that pupils are expected to learn clearly defined with a good understanding of progression
- Providing a broad repertoire of teaching and learning approaches to meet the learning purpose and meet different learning styles
- Supported by good subject knowledge of the teacher.

What might children's work look like?

If you are involved with monitoring children's work you may find a range of ways in which the work will be recorded. Below is a list of possible examples of children's work you may see:

- Parts of an enquiry written up e.g the prediction, a table, a conclusion. Children are not expected to write up whole investigations which has traditionally not been the case in the past. Children only need to record what is outlined in the lesson objective.
- Annotated photographs- taken by an adult or possibly by the children themselves
- 'Floorbook' this can be a collection of an individuals, small group, whole class evidence of work covered during a series of sessions within them they can include annotated photographs, examples of children's work, children's comments and observations.
- Mind maps
- Concept maps
- Electronic evidence e.g. PowerPoint presentations, video recording of drama's, pupil dialogues.

This is the suggested Northamptonshire County Council Science Governor role and summarises the points contained within the handbook:

Policy

- ❖ To have a strategic overview and ensure that the governing body agrees a School Science Policy
- ❖ Ensure that the policy is known to governors, staff and parents
- ❖ Understand that Science targets set by the schools take account of local and national targets and are monitored
- ❖ Include Science as a feature in the School Improvement Plan

Staff/ Training

- ❖ Liaise regularly with the School Science subject leader
- ❖ Support the training needs of staff (including support staff) and governors in this area

Resourcing

- ❖ Assist the governing body to identify and seek to resource the needs associated with Science
- ❖ Assist in the audit of existing Science resources

Other

- ❖ Work with the School Science Subject leader to learn about the provision for continuity and progression

Organisation

- ❖ Explore with the Science subject leader and the Headteacher, ways of involving parents in Science development
- ❖ Consider children with SEN and also gifted and talented are catered for

Governors' meetings

- ❖ Ensure that Science appears as a periodic agenda item and is reported in the Annual Report to parents.