



The Governing Body of Molescroft Primary School adopted this Performance Management policy on Autumn Term 2010

1. INTRODUCTION

This policy document is written after a change of science co-ordinator and is an update on current practice at Molescroft School. It is a working document, which reflects the ethos and practice within the school in relation to Science. It has been written with due regard to the requirements of the QCA schemes of work and the National Curriculum and is aware of current good practice linking Science to other subjects being taught in a more cross-curricular framework.

The Science co-ordinator: Mrs. Victoria Tippett

2. FUNDAMENTAL PRINCIPLES

The whole ethos of Molescroft Primary School is to provide every child with a happy, caring, learning environment in which he or she can develop their full potential – whatever their needs and irrespective of ability, race or gender.

Molescroft Primary school believes that: Science stimulates and excites pupils' curiosity about phenomena and events in the world around them. It also satisfies their curiosity with knowledge. Because science links direct practical experience with ideas, it can engage learners at many levels. Through the subject, pupils learn to raise questions and discuss science-based issues which may affect their own lives and the world in which they live.

AIMS

- To develop the natural curiosity of children about the world around them.
- To develop questioning and enquiring minds through a range of enjoyable and interesting experiences.
- To help children develop the skills to make systemic enquiries.
- To provide opportunities for children to apply theoretical ideas to the solving of practical problems.
- To enable children to develop an increasing attention to accuracy.
- To foster a positive attitude to science and increase their understanding of how science is used in the wider world.
- To provide a range of relevant experiences allowing pupils to acquire knowledge, skills and understanding in key areas of Scientific Enquiry, Life Processes and Living Things, Materials and their Properties and Physical Processes through a variety of teaching and learning strategies.
- To develop accurate use of scientific vocabulary.
- To meet the needs of each child so that they will reach their full potential.
- To provide opportunities to explore science learning which is linked to a broader theme involving other subjects, outside of the QCA schemes of work.
- To engage children's enthusiasm for science in an annual science week, which is rich in practical activities.



3. ROLES AND RESPONSIBILITIES

The governing body should, in co-operation with the Head Teacher, determine the school's general policy and approach to Science at Molescroft Primary School.

The Science Co-ordinator should advise the Headteacher, staff and governors of current practice in Science and any new initiatives put forward by the governments or LEA. For a more detailed explanation on the co-ordinator's roles and responsibilities see Appendix 1.

4. PRACTICE

PLANNING

The Long Term plan for Science is organised on a two year cycle, with the units fitting into the school's 'Thematic Spiral'. The QCA's 'Scheme of Work for Science' (ref QCA/98/211) is used as the basis for the Medium Term planning, though is amended when the needs of the school require. From these, class teachers write their Short Term Plans in accordance with the school's policy on Accelerated Learning.

APPROACHES TO LEARNING

The school is committed to the importance of learning through first hand experiences in Science and developing children's understanding of science through Accelerated Learning techniques.

Through individual, small group and whole class experiences, pupils will be given the opportunities to develop the intellectual and practical skills to allow them to explore the world of science.

The activities will require a progressively more systemic approach, drawing on knowledge gained through previous experiences. They will be relevant to the children and will provide opportunities for trying out their own ideas. Activities will be

differentiated by the class teacher when required and appropriate to the pupils being taught.



ASSESSMENT

Assessment is an on-going process which enables teachers to match the level of work to the children's understanding. Informal judgements will be made during lessons and completed work will be marked in accordance with the target set.

At the end of a unit of work, teachers will make a summary judgement on the attainment of each child based on the National Curriculum levels. In addition to this teachers will focus on different aspects of AT1 throughout the year. Children's achievements will be recorded in individual pupil records for science, contained within the Pupil Reports. As part of the Key Stage 1 SATs, children will be teacher assessed in Science. New APP grids for assessing progress in science have been created and are expected to be introduced in Key Stage 2 in the latter half of the Autumn Term 2010.

SAFETY

All experiments are carried out in accordance with national safety guidelines published in the ASE 'Be Safe' publication. Safety issues are recorded on the short term plans and teachers notify the Science Co-coordinator if there are any amendments or concerns. In addition to this, advice is available from CLEAPSS.

CROSS CURRICULAR OPPORTUNITIES

Whilst Science is taught as a discrete subject, where relevant it will be linked with all other areas of the curriculum e.g. Literacy, Art and Maths.

RESOURCES

See Coordinator for a full list of resources. These are kept in a central location.

5. A SUMMARY OF THE LEGISLATIVE FRAMEWORK

National Curriculum 2000	QCA Schemes of Work
Assessing Progress in Science	Be Safe - SAE

6. SPECIAL EDUCATIONAL NEEDS

Teachers will be aware of those children who have an IEP which may affect their ability in Science. The work will then be differentiated to the needs of the children to enable them to meet their full potential in the subject.



The teacher will also monitor those children who it is believed have an aptitude for the subject and a record will be kept to enable future teachers to develop these children's ability.

7 INSET

The Science Co-ordinator will attend courses organised by the LEA and Science Advisers and Inspector in the Borough. The Science Co-ordinator will deliver INSET on changes to National and East Riding policy.

8. LIAISON WITH OTHER SCHOOLS

The Science Co-ordinator will liaise with other schools during co-ordinator meetings within the Beverley area.

The head of Key Stage 2/Head Teacher will attend meetings relating to the transition of our pupils to the relevant secondary school. This will enable our pupils to complete the Science 'Bridging Unit' in Year 6.

The Year 6 teachers will provide information to the secondary school regarding the children's attainment in Science.

9. FUTURE TARGETS TO BE MET

- Continue to develop exciting activities, visits out of school, specialist providers and business links through Science Week.
- Develop teacher assessment of pupils; working towards using an assessment grid in every year group.
- Provide increasing opportunities for teaching science through a cross curricular approach

10. FURTHER READING

The materials listed below may provide further support for teaching pupils in science.

QCA [A Scheme of work for Key Stage 1 and 2 1998](#)

QCA [Assessing Progress in Science 2003](#)

Bedfordshire LEA [Science Scheme of Work](#)

The Association for Science Education [Be Safe](#) Third Edition 2001

11. ASSESSMENT GRID



Molescroft Primary School
SCIENCE POLICY
 NOVEMBER 2010

Molescroft Primary School Assessment Sheet for Science: Name _____

AF LEVEL	AF1 Thinking	AF2 Understanding	AF3 Communication	AF4 Investigation	AF5 Evidence
2	<p>I can use my ideas and looking skills to answer questions.</p> <p>I can sort and group objects and living things from what I have seen.</p> <p>I can compare things.</p>	<p>I can say how I feel about science things eg electricity can give you a shock.</p> <p>I can say how science helps us do useful things.</p> <p>I can say who uses science to help others.</p>	<p>I can show my results in a table that my teacher has provided.</p> <p>I can find information to help me from books and computers with help.</p> <p>I can use some science words.</p> <p>I can tell you how we worked in a team.</p>	<p>I can tell you my ideas about how to find things out.</p> <p>I can say what I am looking for and what I am measuring.</p> <p>I know how to use equipment safely.</p>	<p>I can say what happened in my investigation.</p> <p>I can say whether I was surprised at the results or not.</p> <p>I can say what I would change about my investigation.</p> <p>I can say whether my investigation was fair.</p>
3	<p>I can explain the similarities and differences in science work.</p> <p>I can suggest solutions to problems.</p> <p>I can make some physical models of something in the real world.</p> <p>I can answer questions from what I have found out.</p>	<p>I know which things in science have made our lives better (using computers to make graphs).</p> <p>I can say which parts of our lives rely on science.</p>	<p>I can record results in tables and bar charts.</p> <p>I can use some scientific language.</p> <p>I can say why working in a team is good.</p>	<p>I can think of more than one variable factor.</p> <p>I can choose from a selection of equipment.</p> <p>I can observe or measure accurately.</p> <p>I can say if there is a risk.</p>	<p>I can see a pattern in my results.</p> <p>I can say what I found out, linking cause and effect.</p> <p>I can say how I could make it better.</p>
4	<p>I can use scientific ideas when describing simple processes.</p> <p>I can use the correct science vocabulary.</p> <p>I can use simple models.</p> <p>I know which evidence proves a scientific point.</p>	<p>I can explain the positive and negative effects of scientific developments.</p> <p>I can see how science is useful in everyday life.</p> <p>I can say which parts of our lives rely on science.</p>	<p>I can choose how best to present data.</p> <p>I can confidently use a range of scientific language.</p> <p>I can use conventions such as: trend, rogue result, support prediction, and –er word generalisations.</p>	<p>I can decide when it is appropriate to do a fair test.</p> <p>I can select the right equipment on my own.</p> <p>I can make a set of observations or measurements and say what the interval and range are.</p>	<p>I can interpret data and find patterns.</p> <p>I can draw conclusions and identify scientific evidence.</p> <p>I can suggest improvements to my method and give reasons.</p>
5	<p>I can use more than one step to describe a process.</p> <p>I can explain my scientific ideas in a clear and detailed way.</p> <p>I can identify strengths and weaknesses in science models and thoughts.</p>	<p>I understand that people have different ideas about science.</p> <p>I can say how science affects me and other people in different ways.</p> <p>I can understand that science can be used in a positive and negative way.</p>	<p>I can decide which format is best to present data.</p> <p>I can use scientific conventions to explain abstract ideas.</p> <p>I can suggest how teamwork may improve the evidence collected in investigations.</p> <p>I know the difference between scientific evidence and opinion.</p>	<p>I can identify several variables and select the best one/s to investigate.</p> <p>I can say why equipment is appropriate to the task.</p> <p>I can make suggestions to control risk.</p>	<p>I can interpret data from a variety of formats and recognise inconsistencies.</p> <p>I can give explanations for differences in repeated results.</p> <p>I can draw valid conclusions that use more than one piece of supporting evidence.</p> <p>I can evaluate my work and make suggestions for improvements.</p>



Molescroft Primary School
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