



POLICY

Science Policy

INTRODUCTION

Park Grove Primary Academy recognises that science should be exciting and encourage each child's natural curiosity about themselves and their environment. Science will be accessible to every child, making the world progressively more understandable throughout the primary years. All pupils will be taught the essential aspects of the knowledge, methods, processes and uses of science. They will be encouraged to understand how science can explain what is occurring, predict how things will behave, and analyse causes.

AIMS

The aims of science at Park Grove are:

- To meet the National Curriculum requirements for science.
- To develop children's confidence and interest in science by encouraging curiosity, willingness to tolerate uncertainty, persistence, co-operation and an awareness of safety for themselves and others.
- To build a broad bank of scientific knowledge, to understand a wide range of concepts and apply this understanding in appropriate ways, particularly in answering scientific questions about the world.
- To develop skills of sorting, classifying, planning, predicting, questioning, inferring, concluding and evaluating through investigative activities with increasing independence (all included under the 5 types of enquiry).
- To promote cross curricular links by practising skills within real contexts:
 - Developing mathematical skills of counting, ordering numbers, measuring, drawing and interpreting graphs and charts.
 - Developing effective ways of thinking, finding out about and communicating scientific ideas and information, including ICT.
 - Developing language skills through talking about work and presenting ideas using writing of different kinds and using scientific vocabulary accurately.
 - Developing children as active citizens who understand the uses and implications of science, today and for the future.

OBJECTIVES

Pupils should:

1. Experience a variety of teaching styles to include:
 - Whole class teaching
 - Group work
 - Individual work
 - Paired work
 - ICT, maths, design and technology and art elements
2. Experience science lessons have no imposed formal structure but may contain the following:
 - Discussion: what they already know from experience, what they have learnt so far, what they will be finding out about next.
 - Teaching: directly to the whole class or through group or individual work.

- Practical tasks or investigative work: working in groups or individually, practising scientific skills, finding out answers, being encouraged to think scientifically, (5 types of enquiry) sorting and classifying, observing etc.
 - Recording: writing about what they have found out, drawing charts and tables and diagrams, using the computer and other media to record what they have done or found out about.
 - Communicating: using scientific vocabulary, sharing ideas, knowledge and what they have found out about with each other, the teacher and adults as appropriate.
3. Be provided with challenging work appropriate to their abilities.
4. Have access to a wide range of resources to include:
- Practical resources
 - Published materials
 - ICT including the internet

GENERAL CONTEXT

Planning

All year groups follow the Park Grove Primary curriculum, which allocates specific areas of science, thus ensuring continuity and progression throughout the school and thorough coverage of the National Curriculum. Regular pre and end of topic self and teacher assessments will be linked to areas taught.

Teaching and Learning

- Science will be taught as an independent subject with cross-curricular links made as appropriate. Particular attention will be given to links with ICT, maths, design and technology and art.
- Children will be taught in both ability and mixed ability groups as appropriate. Differentiated work will be provided to ensure that all children reach their maximum potential.
- A variety of teaching methods will be followed; using whole class, group, paired and individual teaching as appropriate to support different learning styles.
- Scientific enquiry skills will be taught throughout the biology, physics and chemistry units that children study.

Monitoring and Assessing

Teachers include science objectives to be covered on the topic overview sheet each half term. This is within the Creative Curriculum books. If met the objective is ticked off, if not met objectives are revisited. This could be through other science units in the year where opportunities arise or through extra adult support.

Assessment is made through observation in lessons, through written and practical work and the child's post topic reflection.

Special Educational Needs

Access is created for all our children by the teachers devising imaginative and innovative learning programmes so that no student, whatever their level of difficulty or ability, is denied access to the curriculum. Where possible, technology is used to ensure the curricular access of pupils who would otherwise have difficulty accessing particular areas of work.

Equal Opportunities

It is an important principle at Park Grove Primary School that pupils have the right to equal access to the curriculum whatever their gender, race or disability.

Health and Safety

All members of staff follow the guidance given in Park Grove's Health and Safety Policy and are very aware of the need to keep their children safe. Although it is not always possible to predict all the problems which might occur in science activities, staff must accustom themselves to risk assessment, backed up with the information given in the A.S.E. booklet, 'Be Safe', and CLEAPPs documents. If further information is required, teachers, teaching assistants and other staff will consult the Science Subject Leader.

Monitoring and Evaluation

Implementation of this policy will be monitored by the Science Subject Leader via:

- Book and planning scrutiny
- Pupil voice
- Lesson observations and learning walks
- Post and pre evaluation of learning

LINKED POLICIES

Marking Policy

Assessment Policy

Homework Policy

REVISED BY: A. Reeder

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NEXT REVIEW: May 2022