

BYRON COURT PRIMARY SCHOOL SCIENCE POLICY

1. INTRODUCTION

- 1.1. We believe that Science stimulates and excites children's natural curiosity about the world around them and satisfies that curiosity with knowledge.
- 1.2. Participating in practical science activities encourages creative and critical thought.
- 1.3. Children can see the impact that science has on the development of technology and have the opportunity to consider and discuss the way science may affect their lives and the future of the world.

2. AIMS

- 2.1. To arouse and sustain pupil's interest and enjoyment of Science.
- 2.2. To enable children to develop knowledge, skills and understand the concepts of science as laid down in the National Curriculum Framework 2014. This will ensure that all pupil's develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics. Develop a secure understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them. Children are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.
- 2.3. To plan programmes of work which enable progression through a variety of appropriately targeted experiences.
- 2.4. To make links with other curriculum areas where appropriate.
- 2.5. To encourage children to observe, explore and ask questions about living things, materials and phenomena.
- 2.6. To enable children to develop their skills of co-operation through working with others in a safe way and respecting different views/ideas.
- 2.7. Encourage children to treat the living and non-living environment with respect and sensitivity.
- 2.8. To build on their enthusiasm and natural sense of wonder about the world.
- 2.9. To develop the language and written skills to share their ideas and findings.

3. THE ROLE OF THE HEADTEACHER / LEADERSHIP TEAM / THE SCIENCE AND TECHNOLOGY FACULTY LEADER

- 3.1. Teaching and Learning will be rigorously and regularly monitored. On-going assessment will ensure progression and teaching will be good or better in all lessons. Lessons will be observed to ensure a high standard of teaching and learning.
- 3.2. Attainment will be in line with or better than national averages at the end of Key Stage 2.
- 3.3. The school's CPD cycle includes regular provision for training for all staff.

BYRON COURT PRIMARY SCHOOL SCIENCE POLICY

- 3.4. To establish a co-operative team that will lead and co-ordinate all aspects of this subject.
- 3.5. Monitor implementation of the action plan.
- 3.6. Set a yearly budget that will identify resource needs and approve new investment.
- 3.7. Encourage links with the local community and visitors to enrich the learning.
- 3.8. Ensure that this policy is followed by all staff.

4. THE ROLE OF THE OFFICE STAFF

- 4.1. Order and check delivery of resources as purchased by the Science Co-ordinator.
- 4.2. Support staff in the organisation of educational trips.

5. INCLUSION

- 5.1. In school we aim to meet the needs of all our children by differentiation in our science planning and in providing a variety of approaches and tasks appropriate to ability levels. This will enable children with learning and/or physical difficulties to take an active part in scientific learning and practical activities and investigations and to achieve the goals they have been set.
- 5.2. Some children will require closer supervision and more adult support to allow them to progress whilst the higher attaining children will be extended through differentiated activities. By being given enhancing and enriching activities, some children will be able to progress to a higher level of knowledge and understanding appropriate to their abilities.
- 5.3. Targets identified in Individual Education Plans will be taken into account when planning lessons.
- 5.4. Children in the early stages of learning English will be given opportunities through visual aids and reinforcement of vocabulary.

6. EQUAL OPPORTUNITIES

- 6.1. We are committed to providing all children with an equal entitlement to scientific activities and opportunities regardless of race, gender, culture, disability or class.

7. THE ROLE OF THE CLASS TEACHER

- 7.1. Plan and evaluate lessons following programmes of study as given in the National Curriculum which are appropriate to the age group taught. Each teacher is responsible for ensuring that topics are followed after being given guidance by the Faculty at the beginning of each academic year. This will broadly be in line with the current and appropriate scheme of work that the whole school is following.
- 7.2. Ensure work is marked and assessed in accordance with the current policies.
- 7.3. Use resources effectively to maximise learning opportunities for the children.
- 7.4. Monitor the progress of children in the class and maintain all aspects of record keeping.

BYRON COURT PRIMARY SCHOOL

SCIENCE POLICY

- 7.5. Pupils should be able to describe associated processes and key characteristics in common language, but they should also be familiar with, and use, technical terminology accurately and precisely. They should build up an extended specialist vocabulary. They should also apply their mathematical knowledge to their understanding of science, including collecting, presenting and analysing data. The social and economic implications of science are important but, generally, they are taught most appropriately within the wider school curriculum: teachers will wish to use different contexts to maximise their pupils' engagement with and motivation to study science.
- 7.6. 'Working scientifically' specifies the understanding of the nature, processes and methods of science for each year group. It should not be taught as a separate strand. The notes and guidance from the National Curriculum give examples of how 'working scientifically' might be embedded within the content of biology, chemistry and physics, focusing on the key features of scientific enquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions. These types of scientific enquiry should include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources. Pupils should seek answers to questions through collecting, analysing and presenting data.
- 7.7. Class teachers will be encouraged to employ a range of teaching and learning strategies to be used in developing pupil's scientific knowledge, skills and enthusiasm.
- 7.8. Key areas to be covered include scientific enquiry, life processes and living things, properties of materials and physical processes.
- 7.9. There should be opportunity for whole class teaching, small group and individual work. Children should be encouraged to plan and carry out their own investigations, selecting and using appropriate equipment safely.
- 7.10. Science will be taught as an individual area of study but links should be encouraged with other subjects. As guided by the government, teachers must timetable at least two hours per week in Key Stage 2 and one and a half hours in Key Stage 1 for the teaching of this subject. Class teachers will be encouraged to display children's work in the classroom.
- 7.10 To use ICT to maximise and enhance the learning.

8. THE ROLE OF THE TA

- 8.1. Support class teacher with strategies and resources for planning lessons.
- 8.2. Use inclusive strategies to support learning of all pupils eg; pictures, word banks, key words/phrases, writing frames, ICT, dual language resources and games.

BYRON COURT PRIMARY SCHOOL SCIENCE POLICY

9. IMPLEMENTATION

- 9.1. In Reception, children will cover the Foundation Stage Curriculum. Throughout the year they will be working towards the Early Learning Goals. Science will be covered within the goal "Knowledge and Understanding of the World".
- 9.2. The teaching of the programmes of study across Key Stage 1 and 2 will be as indicated in the National Curriculum. The class teachers according to the current scheme of work set for each year group by the Co-ordinator will carry out the delivery of the Breadth of Study across the Key Stages. Science will be taught as discrete units which includes coverage of content and process, strategies for progression and arrangements for assessment, recording and reporting.

10. MONITORING & EVALUATION

- 10.1 Each class teacher will be responsible for the monitoring and recording of pupil's science performance in line with the school's policy on assessment.
- 10.2 Assessment is continuous throughout the planning, teaching and learning cycle. However, children will be more formally assessed using a variety of methods. This will include observing children at work, questioning, talking and listening to children.
- 10.3 Work/materials/investigations produced by children will be taken into account.
- 10.4 End of unit assessments will also be used.
- 10.5 Class teachers will report to parents on their child's progress in line with legal requirements and the school policy.

11. HEALTH AND SAFETY

- 11.1 All teachers and support staff must be aware of any potential hazards in using materials and equipment. Care will be taken at all times to ensure the health and safety of all the children and adults on school premises. LEA and school policies must be followed at all times.

12. REVIEW

- 12.1 Date of policy review – February 2018
- 12.2 Next date of review – February 2021