**Science Policy**

**Ysgol Gymraeg Llundain**

**London Welsh School**

**Review Date : July 2018**

Ysgol Gymraeg Llundain / London Welsh School

**Provision**

We live in an increasingly scientific and technological age where children need to acquire the knowledge, skills and attitudes to prepare them for life in the 21st Century. This policy gives guidance to colleagues at Ysgol Gymraeg Llundain. It outlines the purpose, nature and management of the science taught.

The scientific area of learning and experience is concerned with pupils: *“knowledge and understanding of the natural world and the world as modified by human beings, and with developing skills and competencies associated with science as a process of enquiry”.* (DES/HMI 1985)

**Aims and Objectives**

We at Ysgol Gymraeg Llundain believe that the teaching of science develops in children an interest and curiosity about the world in which they live, and fosters in them a respect for the environment.

Through the framework of the National Curriculum, science aims to:

* Equip children to use themselves as starting points for learning about science, and to build on their enthusiasm and natural sense of wonder about the world.
* Develop through practical work the skills of observation, prediction, investigation, interpretation, communication, questioning and hypothesizing, and increased use of precise measurement skills and ICT.
* Encourage and enable children to offer their own ideas, and to be creative in their approach to science, and to gain enjoyment from their scientific work.
* Enable children to develop their skills of cooperation, discussing, debating and empathising through working with others and where possible ways for children to explore science in forms which are relevant and meaningful to them.
* Teach scientific enquiry through contexts taken from the National Curriculum for science.
* Encourage children to persevere in collecting relevant evidence and to question outcomes.
* Emphasize the importance of treating the living and non-living environment with respect and sensitivity.
* Stress the need for personal safety and group safety by the correct usage and storage of resources.
* Encourage children to become independent learners and develop the skills to find out answers, as we do not always know the answers and results when carrying out scientific enquiry.

**Philosophy and Ethos**

Through the programme of study in the National Curriculum we believe science encompasses the acquisition of knowledge, concepts, skills and positive attitudes. We believe that science promotes communication in a specific and precise language involving mathematical and logical thinking. It fosters:

* A healthy curiosity to develop original ideas and a questioning attitude.
* Allowing children to develop problem-solving skills, finding out information for themselves.
* Developing understanding in selecting and using scientific equipment, collating and interpreting results and drawing conclusions based on real evidence.
* Encouraging pupils to be open minded and to try to make sense of what they see and find out.
* Challenging pupils through activities where fair testing will be encouraged.

**Equal Opportunities**

At Ysgol Gymraeg Llundain we are committed to providing all children with an equal entitlement to scientific activities and opportunities regardless of race, gender, culture or class.

**Inclusion**

We aim to meet the needs of all our children by differentiating in our science planning and 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, practical activities and investigations with an achievable target. By enhancing and enriching activities, more able children will be able to progress to a higher level of knowledge and understanding to reach their full potential.

**Assessment and Record Keeping**

Assessment for learning is continuous throughout the planning, teaching and learning cycle. We will assess by observing, questioning, considering work produced and end of unit assessment tests. Children are also assessed termly with Sc1 enquiry skills as the main focus. We will rotate the focus of the enquiry to Planning, Obtaining or Considering. Reports on children’s progress and achievements in Science are written for parents on an annual basis. We aim to mark and respond to children’s work regularly in a positive and constructive way making reference to the learning objective or the next step if appropriate.

**Science Skills**

Sc1 skills are taught in an ongoing way through the topics covered. All teaching staff will ensure that a balanced range of skills is being taught each term. Opportunities to apply these skills within a whole investigation (to include planning, experimenting and considering evidence) are provided termly.

**Long/Medium Term Planning**

Implementing the Cornerstones Scheme of Work throughout the school establishes the principles of teaching and learning.

**Short Term Planning**

This is done on a weekly basis, focusing on:

* Curriculum 2008 skills
* Key Skills
* Science focus – differentiated lesson plan.
* Scientific key vocabulary
* Resources
* Assessment
* Evaluation
* Curriculum Cymraeg – relevant Welsh vocabulary

**Early Years**

With the Foundation Phase in Nursery and Reception, teachers are developing children’s skills across the areas of learning, to provide a suitable and integrated approach for the children’s learning. They endeavour to strike a balance between structured learning through child initiated activities and those directed by adults. The children will experience the familiar world through investigating the indoor and outdoor environment. They will be encouraged to be curious and find out through exploring and experimenting.

**Key Skills**

A key skill is identified in each lesson, with teachers ensuring a balance across thinking, communicating, maths and ICT. These skills are identified to the children at the start of each lesson.

**Curriculum Cymraeg**

Pupils will be given opportunities, where appropriate, in their study of science to develop and apply their knowledge and understanding of the cultural, economic, environmental, historical and linguistic characteristics of Wales.

**Health and Safety**

All staff should make themselves conversant with the *Be Safe* safety booklet. Where appropriate reminders will be given to children about potential hazards and care of the equipment they are using. This will also be indicated in their planning.

Any trips should be planned with regard to the school policy on taking children on outings, and an appropriate risk assessment completed. LEA guidance may be sought on trips involving farms, etc.

**The Role of the Co-ordinator**

Ysgol Gymraeg LlundainPrimary School has one Science subject leader responsible for all key stages. Responsibilities include:

* Ensuring the Newport Scheme of Work being introduced is employed effectively across key stages.
* Organising and maintaining resources.
* Supporting colleagues and identifying inset needs.
* Keeping up to date with new initiatives and curriculum developments.
* Monitoring and evaluating planning and delivery of science.
* Disseminating information through inset.
* Analysing data to inform teaching and planning.
* Organising an annual Science week & Science Fair to raise the profile of science in the school.

Signed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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