



Jockey Club Sarah Roe School
賽馬會善樂學校

Policy on Science

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Policy on Science

The Science policy is to develop scientific skills & to observe, explore & learn about the world around the students.

Rationale

In turn they will develop a greater awareness of their environment & an understanding of their place within it. Science is a core subject within the Primary Years Programme and the ASDAN Programme. The aims of teaching Science are consistent with our school philosophy & take account of the IBO Science Scope of Sequence and the DFEE exemplar scheme published on the 'standards' website, as well as the particular needs of our pupils.

Aims

The Aims of Science education are:

- To enable students to develop their knowledge & understanding of the world they live in, through investigation of that world & by encouraging them to develop a caring & co-operative attitude to the environment.
- To provide units of inquiry and a set of modules that are broad, balanced, relevant & differentiated
- To ensure the continuity & progressive development of scientific concepts, knowledge, skills & attitudes by means of careful, structured planning.
- Enable student to work scientifically in a range of appropriate contexts using a wide variety of materials, equipment & experiences as appropriate to the development of the child
- To promote positive attitudes towards & enthusiasm for science, by fostering a sense of awe, wonder & enjoyment.

Objectives

We plan the science curriculum with the major objective of involving the students at an appropriate level in:

- a) practical investigations which capitalise on their own interests, & from which they derive valid & interesting conclusions;
- b) gaining a range of learning experiences that increase each pupils scientific knowledge;
- c) ensuring & assessing safe working conditions, especially in the use of science equipment;
- d) co-operating with the teacher & other children in planning, decision-making, investigating & communicating results;
- e) developing the skills of observing, classifying, recording, and for the more able students, making & testing hypotheses
- f) relating their work to every day experience;
- g) having fun, showing curiosity, perseverance, self-discipline & ingenuity.

Science Curriculum

Six classes (primary classes and early secondary classes) use PYP curriculum framework. The staff reference the UK National Curriculum for content. Secondary classes use Asdan Programme. The Programme of study for Science, as set out in the UK National Curriculum is divided into four strands:

- Scientific Enquiry;
- Life Processes and Living Things;
- Materials and their Properties and;
- Physical Processes

Teaching and Planning Arrangement

The whole school will follow science topics set out basis for the multi sensory lessons. Teachers will be encouraged to foster the development of pupil investigative skills based on their own ideas aided & developed by the class teacher.

Teacher Planning

Science is one of the six subject domains in Primary Years Programme and the ASDAN Programme. Through the use of B2, teachers set targets for Science. Teachers can use the the National Science Strategy along with the IBO Science Scope and Sequence and ASDAN

賽馬會善樂學校

JOCKEY CLUB SARAH ROE SCHOOL

modules as reference for teaching content and teaching activities.

Long Term Plans

- Primary class teachers will use the National Curriculum and IBO Science Scope and Sequence as references to fit into the PYP curriculum framework.
- and post fourteen and post sixteen students will follow the ASDAN Programme.
- Class teachers will follow the Long Term Plan (Program of Inquiry for Primary classes and ASDAN Programme) as to when the different strands are to be introduced. This will ensure that equipment/resources are readily available.

Medium Term Plans

Teachers will follow the Long Term Plan and develop appropriate targets for the class. The related key targets will be incorporated into PYP units of inquiry and reflected in the unit planners and into the planners of ASDAN Programme.

Short Term Plans

A short term planner (weekly plan) will be completed by each class teacher, which should outline the objectives and activities being covered each week. These planners are to be handed into the Vice Principal at the beginning of each week.

Resources

- There is a range of resources to support the teaching of Science across the school.
- The teaching resources will be kept in the Resource Room where the equipment is arranged according to units of inquiry and ASDAN modules.
- The resources included a range of educational toys, audio visual aids, books, references, a range of software and a variety of photocopiable resources.
- The resources will be kept up to date and in good condition. There will be an annual audit of resources and make available to staff.
- An annually updated list of Science resources will be available.

Monitoring and Review

Role of the Vice Principal

- The Vice Principal will be responsible for maintaining an overview of the whole curriculum.
- The Vice Principal will monitor the programme of enquiry and the unit planners. The Vice Principal will also observe in the classroom, the curriculum presentation and content.

Role of the Science coordinator

- The coordinator will monitor and evaluate curriculum policy implementation.
- The coordinator will be responsible for monitoring the coverage and achievement levels within the established framework.
- The coordinator will attend relevant training, provide training to support colleagues in the teaching of Science, be informed about current developments in the subject, and provide a strategic lead and direction for the subject in the school.
- The coordinator will be responsible for the Science resources in school and keep an up to date inventory.

Role of the teacher

- The class teacher will be responsible for teaching Science and monitor the standards of students' work, evaluate their learning outcome and have high expectations of individual student.

Assessment and Recording

Effective assessment within the Science curriculum will facilitate individual progress and attainment. It will also facilitate curriculum continuity and meet the needs of accountability.

The following issues are to be addressed when we consider assessment:-

- The unusual or unexpected response should be allowed for.
- The whole assessment should take account of process as well as product and context.

- Creating artificial conditions for assessment should be avoided.
- A variety of approaches and conditions should be used.
- Different members of staff should have the opportunity to contribute to assessment.
- Teachers should maximize feedback to the students through discussion.
- All assessments should be carried out with the utmost sensitivity.

Current Science assessments are obtained through in-class observation, P-level , and the use of B2.

Cross Curricular Links

Students will be given many opportunities to apply their enquiry skills across the curriculum. The range of skills will encompass problem solving skills, from an awareness of cause and effect, through decision making, to investigative activities in which students learn from their experiences collaboratively.

Health and Safety

It is the responsibility of all staff and where possible students, to be aware of possible Health and Safety issues in relation to this curriculum area. This needs to be considered in relation to various environments and types of equipment and therefore eliminate foreseeable safety problems. It is fundamental to this subject that students will also develop positive attitudes to the safety of themselves, others, tools and equipment and an ethos is created where respect for our environment is developed. Any specific issues relating to health and safety which need immediate attention should be brought to the Vice Principal's notice.

Criteria for evaluating the success of the Policy

This policy will be reviewed every three years by the Coordinator after discussion with the teachers and School Council representative.