



HIGHSHORE SCHOOL

Science Policy

Aims and Purposes

- To enable learners to develop their knowledge and understanding of basic Science concepts and skills that are relevant to their daily lives.
- To develop learners Scientific enquiry and life skill in Science, through the integration of their complex needs, and an understanding of the relevance of science concepts and skills in their daily lives.
- To help learners acquire relevant knowledge and understanding of their local as well as the global environment, through active participation conservation and energy saving measures.
- To reinforce the role of Science in promoting healthy living.

Curriculum Content

There is a separate subject overview identifying key stages and relevant areas of study in the form of medium term planning.

Pupils in key stage 3 study the following topics:

- Energy, Electricity and Forces
- Chemical and Material Behaviour
- Organisms, Behaviour and Health
- The Environment, Earth and the Universe

Pupils in key stage 4 study the following topics:

Biology units

- Survival in Nature
- Cells, DNA and Diseases
- Sending Messages Around the Body
- Staying Fit and Healthy

Chemistry units

- What are Things Made From?
- Making Changes
- There's One Earth
- Properties of Materials and their Uses

Physics units

- Electricity — its Production and its Applications
- Energy to Make Things Work
- Electromagnetic Waves and their Uses
- Exploring the Earth and Space

Accreditation

In key stage 4 pupils follows the Entry Level Course in Science using syllabus from the Edexcel Examination Board with relevant topics from their programme of study at Key

stage 4. At the end of key stage 4, learners are given the opportunity to be entered for the Entry Level Certificate in Science.

Teaching and Learning Styles

The teaching of Science at Highshore incorporates the fundamental areas of need for learners with complex needs. Therefore the content and delivery of Science concepts and skills should reflect the triad of impairment of complex needs, as well as a recognition of the cultural, social, moral and spiritual imperatives or dimension that help to broaden learners learning experience.

Primarily the teaching strategy is child-centred activity approach with lots of practical investigations that are enhanced with audio-visual learning experiences.

The level of conceptual understanding of most learners is far below their chronological age. Therefore teaching methods in Science are often based on concrete learning experiences, modelling and role play that help to make learning fun and exciting. Tasks are also differentiated to meet individual learners needs and variation in conceptual understanding and process skills.

Outdoor activities and educational visits also form an integral part of curriculum delivery in Science with the purpose of reinforcing learners learning experience as well as broaden their horizon to make Science more relevant and meaningful in their lives.

Science is taught using a variety of styles:

- Individual and group activities
- Problem solving tasks
- Investigative experimental work
- Practical activities
- Outdoor learning experiences e.g. school trips

Monitoring and Assessment

The department incorporates whole school policy in setting up assessment and monitoring criteria of learners achievement. Specifically learners progress is measured using qualitative and quantitative mode. A comparative evaluation of learner initial diagnostic assessment (based on their entry level), and final assessments (both formative and summative) on topics covered will provide an insight into individual learners progress in the relevant curriculum area. Homework tasks and individual learners project work can be used to monitor their progress in their knowledge and understanding of basic scientific concepts and skills. Information gathered by teacher assessments will be made continuously. Learners work is assessed at both key stage 3 and 4, using level descriptors from the National Curriculum and P-Levels.

The Entry Level Course at key stage 4 is teacher assessed and externally validated by moderators from the Edexcel exam board.

Equal Opportunities

Where particular pupils have additional needs which must be addressed in order to overcome barriers to learning – for example, as a result of disability, medical needs, and sensory impairment – teachers will take account of these requirements by:

- Adapting teaching methods and learning styles, so as to address the learners specific needs.
- The use of lots of concrete learning experiences that target the sensory needs of learners e.g. audio-visual, and multi-sensory inputs.
- Using specialist knowledge and support of professionals in areas of learning e.g. dyslexia, speech and learning therapist, and communicating in Makaton to enable all learners to access the Science curriculum.

Cross-curricular Links

Links will be made with other curricula areas to support and enhance the delivery of Science especially in the area of scientific enquiry. For example:

- Educational trips to the local pet shop and markets, city farms.
- Visits to the London Zoo, the Science and Natural History Museums.
- Food technology (healthy eating), P.E. (Exercise), PHSE and ICT.

Health & Safety

Risk assessments are in place for all areas of the Science curriculum. Learners are introduced at the initial stage and regular reinforcement on the importance of safety in Science. This is done through use of visual experience and, the use of health and safety symbols in lessons, where there is a potential risk to health and safety of learners. The department also subscribes to CLEAPS for guidance and information on developments in areas of health and safety in Science lessons.

Subject: Science

Subject Leader: Lorraine Parker

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