Poplar Adolescent Unit Education Provision

Science Policy

Accepted by the Management Committee:	July 2020
Review Date	July 2024

Poplar Adolescent Education Unit

Science Curriculum Policy

Introduction

The Poplar Adolescent Unit recognises science as a core subject. Guidelines relating to this:

This policy applies to all pupils in the Poplar Adolescent Education Unit.
This policy has been written by the Science Co-ordinator and will be reviewed in 2022.

1. Our rationale for teaching science

Science is a body of knowledge built up through experimental testing of ideas. Science is also a methodology, a practical way of finding reliable answers to questions we may ask about the world around us. Science in our school is about developing young people's ideas and ways of working that enable them to make sense of the world in which they live through investigation, as well as using and applying process skills.

We believe that a broad and balanced science education is the entitlement of all children, regardless of ethnic origin, gender, class, aptitude or disability.

- **Aims**
  - Prepare our young people for life in an increasingly scientific and technological world.
  - Foster concern about, and active care for, our environment.
  - Help our young people acquire a growing understanding of scientific ideas.
  - Help develop and extend our young people's scientific concept of their world.
  - Develop our young people's understanding of the international and collaborative nature of science.

- **Attitudes**
  - Encourage the development of positive attitudes to science.
  - Build on our young people's natural curiosity and develop a scientific approach to problems.
  - Encourage an open-mindedness, self-assessment, perseverance and responsibility.
  - Build our young people's self-confidence to enable them to work independently.
  - Provide our young people with an enjoyable experience of science, so that they will develop a deep and lasting interest and may be motivated to study science further.

- **Skills**

- Give our young people an understanding of scientific processes.
- Help our young people to acquire practical scientific skills.
- Develop the skills of investigation-including observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Develop the use of scientific language, recording and techniques.
- Enable our young people to become more effective communicators of scientific ideas, facts and data.

2. Our teaching aims

- Teaching science in ways that are imaginative, purposeful, well managed and enjoyable.
- Giving clear and accurate teacher explanations and offering skilful questioning.
- Making links between science and other subjects.
- Filling in gaps of scientific knowledge and maintaining a continuity of education between the 'home' school and Poplar Education unit wherever possible.

3. How science is structured in our school

Poplar Education unit has one teacher responsible for the co-ordination of the teaching of science. The teacher plans and provides a science programme of relevant but non-GCSE practical's, for pupils up to key stage 5. Thereafter, pupils continue with the work set by their education provider, where this includes science, support is provided. There is also an alternative Asdan Unit project-based programme should post 16 students (or any student) wish to engage in Science independently. In addition to this young people may have science work provided by their 'home' school. Space within the timetable is provided for pupils to complete this work. The science teacher or key teacher supports the young person in this work where appropriate.

Throughout the school year a mix of the science disciplines are taught (Chemistry, Biology, Physics). The exact units that are taught will be dependent on the age and ability of the young people and their educational needs.

The group is of mixed age, sex and ability. The lessons are therefore differentiated to meet the needs of all pupils and covers areas of the curriculum that will be relevant to all of them. Web based science lessons are provided which allow all pupils to work at their own level and encourage the use of ICT, the development of scientific enquiry skills, literacy, numeracy and allow for self-assessment. Where appropriate practical lessons are integrated into the curriculum these, re-ignite pupils interest in science providing them with an enjoyable experience that extends their scientific knowledge, raises their self-esteem and facilitates them working as a group which is an important part of their treatment whilst resident at the unit.

4. Our approach to science

- A variety of commercial secondary science schemes are used and adapted dependent on the need of the learners and unit being taught.
- Young people are given the opportunity to practice science skills and enhance their presentation using carefully chosen software.
- A wide mix of resources are utilised including video clips, models, interactive whiteboards, a wide variety of texts.
- The school combines these secondary sources with first-hand scientific enquiries, building young people's science skills.
- We encourage young people to ask and answer questions.
- Scientific enquiries are an integral part of the curriculum. Young people are given opportunities to plan, carry them out and record and interpret results. These are dependent on the health of the young person and their individual needs.
- We use cross-curricula links to science with for example, food and technology units.

5. Equal opportunities in science

Science is taught within the guidelines of the school's equal-opportunities/ equality and diversity policy.

- We ensure that all our young people have the opportunity to gain science knowledge and understanding regardless of gender, race, class, Key stage, physical or intellectual ability.
- Our expectations do not limit pupil achievement and assessment does not involve cultural, social, linguistic or gender bias.
- We aim to teach science in a broad global and historical context, using the widest possible perspective and including the contributions of people of many different backgrounds.
- We value science as a vehicle for the development of language skills, and we encourage our young people to talk constructively about their science experiences.
- In our teaching, science is closely linked with literacy and mathematics. We recognise the particular importance of first-hand experience for motivating young people with learning difficulties.
- We recognise that science may strongly engage our gifted and talented young people, and we aim to challenge and extend them.
- We exploit science's special contribution to young people's developing creativity; we develop this by asking and encouraging challenging questions and encouraging original thinking.

6. Assessment and recording in Science

- Baseline assessments are completed by KS3 and KS4 students to allow us to assess progress.
- Current and expected levels are obtained from the young person's 'home' school. This knowledge is used to inform our teaching.
  We mark each piece of work positively, marking it clearly, verbally, or on paper, where the work is good, and how it could be further improved. Pupils are actively encouraged to self-assess using information given to them or where appropriate peer assessment.
- Daily progress recording and internal recording are used to record lesson outcomes and progress.
- Reports are submitted to each young person’s CPA which is an opportunity for parents, carers, professionals and the young person to celebrate and discuss progress.

7. Accreditation

- Young people's work will be accredited wherever possible and appropriate.
- This science policy will be reviewed by the Science Co-ordinator.

Date for next review of this document: July 2022