

## Science Policy

### **School Philosophy**

Eden park Academy believes in using scientific appropriately, both content and scientific enquiry, effectively and creatively to empower learning.

The school recognises the importance of Science to enable pupils to improve their capacity to acquire knowledge and to apply science to situations the real world as well as key preparation for many career choices.

The school believes in using digital, multimedia and information communication technologies to facilitate, develop and enhance independent, collaborative and life long learning in the field of Science.

### **School Aims**

At Eden Park we aim to:

- To stimulate interest in Science and develop investigative skills so that pupils may participate in a rapidly changing world in which work and other activities.
- To create opportunities for pupils to take greater responsibility for their own learning, to plan and organise their ideas, and to discover scientific concepts for themselves.
- To provide opportunities for both collaborative and independent learning such that may promote pupils' spiritual, moral, social and cultural development.
- To provide opportunities to promote and develop investigative Skills.
- To contribute to learning across the curriculum
- To Ensure Safe and appropriate use of equipment by all.
- A broad Science curriculum offering a diverse, evolving range of courses to meet the continuing developmental needs of young people.
- Assessment which tracks and encourages progress to provide pupils, teachers and carers with detailed assessment data and informs individualised support.

### **Entitlement**

All pupils will be entitled to receive the opportunity to undertake the study of Science, and scientific enquiry, regardless of ability or past experience.

## Implementing the Curriculum

The school has a shared room for Science which also houses the equipment. A detailed list of equipment and suggested practical activities is displayed in the cupboard.

A digital projector and ICT suite are available for use.

In all Key Stages the students will learn Biology, Chemistry and Physics which all include areas of scientific enquiry.

Practical work is carried out at every opportunity

## Areas of study for KS4

### Key Stage 3/4 Science OCR Entry Level Science Topics All topics include scientific enquiry

#### **Biology**

Dead or alive  
Babies  
Extinction  
Casualty  
Healthy Eating  
Control systems  
Gasping for breath  
Creepy Crawlies  
Fooling your senses  
Food factory  
Drugs in society  
My genes  
Body wars

#### **Chemistry**

Acids and alkalis  
Cooking and cleaning  
Colours and smells  
Heavy metals?  
Fibers and fabric  
Clean air?  
Strong stuff  
Restless earth  
How fast? How slow?  
Sorting it out  
CSI plus  
Fuels  
What's added to our fuels?

#### **Physics**

Getting the message  
Our electricity supply  
Attractive forces  
Pushes and pulls  
Let there be light  
Final frontier  
Alternative energy  
Deep impacts  
Driving along  
Hot stuff!  
Nuclear power  
Full spectrum  
Medical rays

## **Assessment**

OCR Entry Level science provides our learners with specific targeted modular assessment. Short sectional assessment is undertaken at the end of every term. These are supplemented with a number of CAN-DO participant experiments

## **Differentiation**

Differentiation will be made through outcome. As assessments are carried out, skill strengths and weaknesses will be identified for individual students. The following activities will then be adapted to ensure all students can participate fully in each task. Extension activities are included in schemes of work. To date only year 11 students have timetabled Science lessons but this is to be added to all students, despite ability or age by 2013.

## **Resources**

Schemes of work for KS4 based on Standard schemes/examination specification/.teachers own notes and adaptations for EBD students.  
Resources from **OCR Interchange** and **STEM** other sites to allow for individual and differentiated work

Full list of equipment is displayed in cupboard and added to continuously  
Workbooks, revision guides

CD ROMS

Black and White printer

Scanner

Digital projector

Digital camera

## **Links with other areas of the curriculum**

Literacy- writing reports on experiments, newspaper articles

ICT- throughout the course, research skills, interactive web sites

Maths- calculations, graphs, scales

Art- diagrams especially for biology

Music- the study of sound

Geography- the earth and planets in the solar system, water cycles

PE- the human body, forces

Citizenship- the environment