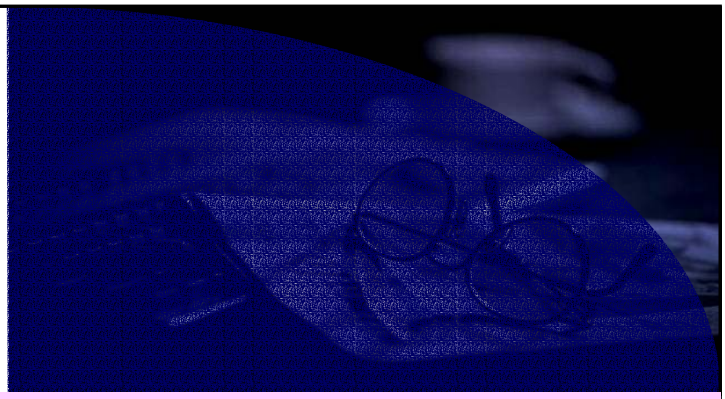

Science Interactive LTD. PO BOX 50764 LONDON NW6 9AT web: www: science-interactive.co.uk

Science handbook...mission statement

The Mission of this Science Department is to provide a positive learning experience in science to all pupils regardless of their ability, age, sex, language, ethnicity and behaviour. We aim through the future years to develop academic, physical and spiritual needs of all pupils, preparing young men and women for the exciting and challenging opportunity of employment, further education or training within science related areas.

The department is committed to raising standards of achievement in all subjects but in particular science. This will enhance whole school improvement in academic performance. The Department seeks to develop innovative and creative practice in the delivery of science, providing models of good practise that can be shared amongst other departments.

Departmental core values

- **Supporting the individual student**
- **Supporting the value of science as a wealth creating endeavour**
- **Supporting the value of mutual respect**
- **Discovering student's talent and ideas**
- **Encouraging hard work and recognising achievement**
- **Creating opportunity for all students**

Departmental Objectives

- **To achieve improvements of Key stage 3 and GCSE grades of students attending this School.**
- **To raise self-esteem and improve self worth.**
- **Prepare young men and women for the exciting and challenging opportunity of employment, further education or training within science related areas**
- **To achieve all forms of accreditation for student's effort, work and courses completed.**

Key stage 3 targets

- **Increase the percentage of level 7 at KS3**

- **Increase the percentage of level 5 at KS3**
- **Increase the number of pupils who opt for double science at Key stage 4.**
- **Increase the use of IT in science at Key stage 3**

Key stage 4 targets

- **Increase the percentage of A/A* grades at GCSE**
- **Increase the percentage of A to C grades at GCSE**
- **Increase the number of pupils who opt for science subjects at Key stage 5**
- **Increase the use of IT in science at Key stage 4**

Targeting C/D (ks4) and level 3/4 pupils (ks3)

Key stage 3

- **Offer Out of School Revision classes during evening classes and holiday time**
- **Implement QCA compliant schemes of work**
- **Use 'KS 3' booster material**

Key stage 4

- **Offer Out of School Revision classes during evening classes and holiday time**
- **Offer Easter revision courses**
- **Monitor coursework and aim to achieve full entry for coursework.**
- **Use IT, Science-specific CD-Roms and the Internet as an aid to learning.**
- **Develop integrated schemes of work**

Science and information technology

- **Develop and implement ICT as a regular feature of learning and attainment in science:**
- **Bid for Mini IT suites are now in place with four to five computers in each science laboratory**
- **Use IT, Science-specific CD-ROMs and the Internet as an aid to learning.**
- **Use alternative forms of data collection such as logits.**
- **Encourage the use of IT as a medium to present coursework.**

Child Centred Learning Policy

Learning is an interaction between ideas which are already in the learner's mind and new ones introduced by learning activities. Learning is an active process which starts with learners previous experience and learning capability. Teaching schemes must recognise this by:

Finding what the learner's knowledge and understanding are and providing learning experiences which start from there.
Giving them opportunities actively to test, redefine and consolidate their understanding in new learning contexts.

The Science Department aims to:

- **Plan learning activities so that opportunities exist for learner's ideas to be made explicit as a natural part of the lesson structure, so that the process is seen as a real learning.**
- **Establish a classroom culture in which contributions are seen as ideas that are worthy of scrutiny in order to maintain the learner's self-confidence.**
- **Provide a wide range of learning activities which will encourage learners actively to try out their ideas in new situations.**

Such learning activities will include: Raising questions, Identifying the spiritual and moral issues, Planning, Making observations, Using practical skills, Analysing data & Looking for patterns.

Other examples of active learning could include:

Problem solving, Small group discussions, Drama and role play, Surveys and opinion polls, Individual and group presentations to the rest of the class, DART's i.e, directed activities related to text &Visits and visiting speakers.

The roles of practical work are:

- **A means of gaining basic laboratory skills**
- **A means of developing observational skills**
- **A means of illustrating a particular concept**
- **A whole scientific investigation.**

The provision of effective experiences consists of several steps:

- **Planning of a topic or a series of lessons, consideration of the aims of the topic and the pupil's previous experience.**
- **Preparing, i.e, deciding on lessons, consideration of the aims of the topic and the pupil's previous experience.**
- **Managing the learning, i.e, teaching the lessons, homework activities, management of pupil behaviour, safety, apparatus and time.**
- **Evaluating and assessing pupil's learning in lessons as well as formal marking in order to provide feedback to pupils; modifying plans for the next time the topic is taught.**