



Super Science Summer School 2004

SCHOOL: All Saints, Brookfield

PHASE: Secondary

KEY STAGE & YEAR: Key Stage 4, Year 10

CURRICULUM AREA: Science

LINKS TO PLANS/NC: CLC s aims 2, 3, 8 Objs 9, 12, 14
EiC Plan: SO2, SO4 CLC: FA1, 3, 4, 5 G&T: FA4
EDP2: Priorities 1a, b, c, d, 4, 6, 7
NC: .Sc1 2g, j, k

DURATION: 5 Days

LEARNING OBJECTIVES

- ⌘ To reinforce the main topics covered in Year 10
- ⌘ To engage using interactive eLearning resources
- ⌘ To use a range of scientific technologies not readily available in schools to support learning.
- ⌘ To begin preparation of the Year 11 project.
- ⌘ To develop web based revision skills techniques
- ⌘ To inform preparation and practice.



BRIEF

This activity was organised during the first week in August and targeted at Year 10 students to support a programme of reinforcement activities in preparation for Year 11. Using a variety of interactive learning tools, students were able to concentrate of 'key' areas of difficulty to support the transition from Year 10 to 11.

DESCRIPTION

During this week's programme, students developed their web based revision skills and were shown how ICT can assist in the production of coursework, homework, revision and project work. The workshops were designed to ensure that individuals had the opportunity to one to one support and advice with Science revision. Some activities involved working in groups using a range of innovative technologies and finally, students began to prepare for their Year 11 science project work. Details of the activities are show below:

Activity One – Devices can be controlled through direct instruction

- ? Groups programmed 'Aibo' robotic dogs to demonstrate the use of ICT in Science
- ? 'Blast from the past' – PAC MAN game demonstrating the advance of ICT in 20 years

Activity Two – Introduction to 'Plug and Play Electronics', including connecting devices together

- ? In groups, students learn how to build and control light sensitive fans, build FM radios and other devices.

Activity Three – Heart rate, exercise and smoking project

- ? Monitoring heart rate using data loggers/sensors to investigate how the heart rate changed after dancing on the X Box Dance Master 3.
- ? Using the Dance Master 3 to investigate pressure sensors
- ? Researching the net to produce web pages about smoking and it's effects on health.
- ? Add the pages produced above to the science website for other students to access during the school year.

Activity Four – GCSE Support

- ? Familiarisation and practise using web links for GCSE Science, including SAM Learning and building up a revision guide for use in Year 11.
- ? An opportunity to look GCSE help books with a view to borrowing them through schools until next June

Activity Five – 'Making things happen', gadgets and science stuff

- ? Investigating the chemical rocket car, the foam rocket, BOP IT and the floating space ball.
- ? Building a chemical rocket car from everyday materials and making it work.

OUTCOMES/EVALUATION

Following the success of this pilot project during the summer holidays, a follow up programme will now be delivered during October and February half terms along with an Easter Revision school prior to the GCSE. This will enable regular reinforcement on a half termly basis linked directly into the work that the students are doing

Following an evaluation of the week's events comments from students included: "It was a great experience", "We should do it again!"