

Science Online

The Newsletter for GNVQ Science Online Teachers

news

Welcome to the 1st GNVQ Science Newsletter

Since the introduction of the Intermediate GNVQ Online Science Course in September 2001 there have been many exciting and innovative changes to the programme and this newsletter will hopefully bring you up to date with some of the most interesting.

A new pricing structure has been introduced for 2003 which can be found on the back page of the newsletter, so please look at it carefully to see how you will benefit from the reduced prices. Also enclosed are details of the opportunities you will have to purchase specifically tailored training days for you and your staff. These bespoke sessions will be designed around your particular needs, so that your staff will get the

highest quality and most relevant advice and guidance on the course from the teachers and designers who have developed the materials.

Finally, you will find information about the latest product being developed by our multimedia team – KS3 ICT, and other courses and training days that are available from the 3E's Federation of Schools. Please pass on this information to your colleagues, who are invited to attend one of our

free demonstration days, which will showcase the materials.

We welcome feedback from you, so if you wish to contact us, please e-mail us at info@3es.com or call Jan Richards on **0121 329 8366**. Best wishes for the coming year from all at the 3E's Multimedia Team!

Support

Curriculum and Technical Support

To access the support service for the course, in the first instance please contact the course administrator, Jan Richards. Jan will be able to determine how your query can be resolved and will contact the appropriate technical or curriculum adviser. In most cases the query will be answered within 48 hours. Please ensure you provide us with your contact details: telephone number, fax number and e-mail address – and the most suitable time you are contactable on the telephone. Jan's contact details are: tel: **0121 329 8366**, fax: **0121 779 1317**, e-mail: info@3es.com.



■ Science students at The City Technology College, Kingshurst, Birmingham



**THE
BROADLANDS
APPROACH**

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AGENCIES IN
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**SAVE UP TO
£1995
PER YEAR**

**SEE HOW MUCH
YOUR SCHOOL
WILL SAVE...**

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The Broadlands approach

How one school has successfully introduced GNVQ Science

The past year has been one of enormous change and hard work for all the staff in the Science department at Broadlands School. A little over a year ago we made the decision to swap about half of our Year 10 cohort from GCSE Double award science to the GNVQ science course.



By Andy Guest
Broadlands School

There is no doubt that this was a major undertaking, as it required us not only to become familiar with a whole new method of assessment, but also a complete change in approach to the way we had previously taught science. Gone was the frantic rush to pack endless content into an impossibly short space of time; now we had more freedom to explore issues and experiments, as well as the role of science in both the world and the workplace, in much greater depth.

Managing the Change

With our subscription to the online material it soon became obvious how much choice there was, and the potential workload for our technicians to prepare whole new sets of apparatus and experiments was quite daunting. We made the decision to plan the first year quite carefully, to give staff the support in managing the change while trying to remain true to the philosophy of GNVQ Science. Following the guidance given by the Kingshurst material we picked a route through the first three units and taught them as a combined Year 10 course. We split the material into six smaller modules with either a biological or physical science slant to allow teachers to teach with their preferred areas wherever possible. We also decided to highlight clearly within our lesson plans the skills staff were looking for in the students work for each individual activity to help teachers become familiar with

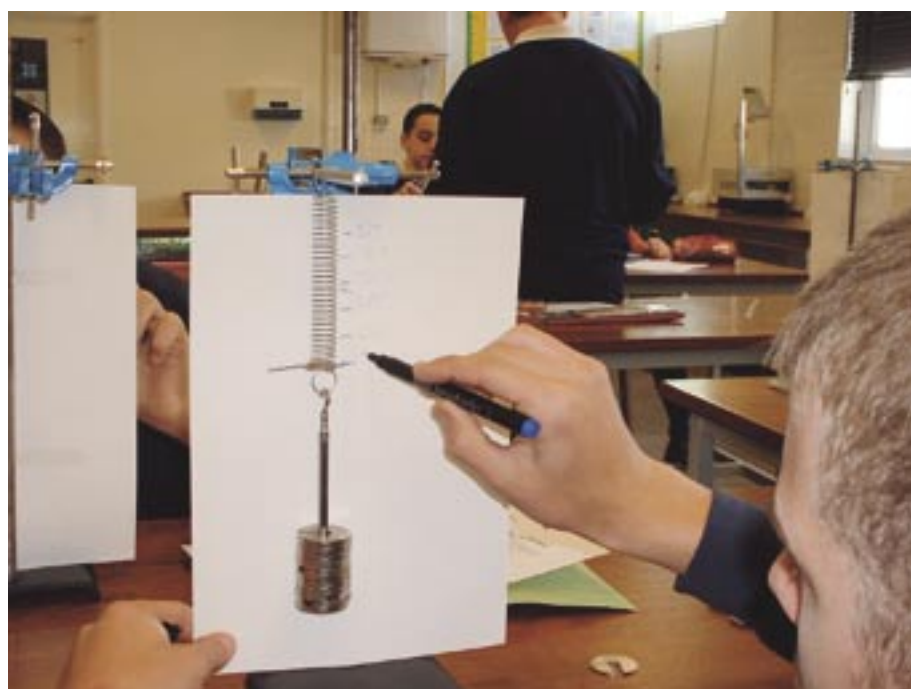
the portfolio assessment criteria. The use of and access to ICT was a concern to staff so we decided to highlight lessons where ICT was essential to help staff in their planning and booking of school ICT resources.

With all staff following the same activities the lives of our support staff have been made a little easier, and their input has allowed us to come up with variations on some practical activities – particularly devising cheap alternatives to some of the more expensive ones!

Resource Centre

All of our material, module outlines, and lesson plans, worksheets, overhead transparencies and portfolio support material for less able students, is being

made available in the resource centre under the heading 'The Broadlands Approach'. At the moment only about half of it is there but the rest is following shortly. We do not pretend to say we have found the only way to deliver GNVQ science and we are already beginning to explore some more of the wealth of activities and ideas available on the Kingshurst course. However we have found that the method we chose to use to implement the changes has allowed our staff to become familiar and now confident and enthusiastic in their delivery of the new course. It is our hope that, now we are into our second cohort, we will see increasing diversity and individuality in the lessons taught within our department, and less reliance on the departmental lesson plans that we used to help us through the first tough, but rewarding year.



■ (Right) Students at Broadlands School which has adopted the GNVQ Science course

The 'V' Bit

Using outside agencies effectively in science



Exploring the possibilities opened up by the vocational aspects of GNVQ's can provide quite a challenge for the staff, students and the Industrial personnel involved. King Richard School in Portsmouth has a large number of outside providers who deliver and support aspects of the GNVQ Science curriculum. There are however a few "golden rules" we have discovered along the way, we hope you find them useful.

- Private industry is there to make a profit – don't forget this – nearly all are happy to offer time; few will offer cash so don't offend by asking. They will however be prepared to resource some of the needs of the aspect they are supporting.
- They don't know the curriculum or the jargon, so don't speak in it. Go to an initial meeting with a few ideas of specific areas or concepts that they could support with. Take a copy of the curriculum and show them what students are expected to achieve as a result of the partnership.
- These people are not teachers and some may be very nervous about delivering to students. Ask them if they want to run through the stuff privately, or if they want to visit the school beforehand to meet some of the students.
- Be creative about how you use these people; they are experts in their area. Is a visit or a lecture the best way to use their skills? Could they support in a practical or a more personal level.
- Make yourself some business cards – as pretentious as this may feel, it is very embarrassing to ask for a scrap of paper to scribble your phone number on.
- Try and make the process a two way one; is there anything you can support them with. Publicity is often a good place to start.
- Assign the co-ordination of the vocational aspects to an experienced and enthusiastic member of the department, who can spot these opportunities in the curriculum and has the neck to do some cold calling – it works!

It won't work every time and some may fall through but by and large if you follow these points you should end up with a number of supportive industries that add substantially to the curriculum. Best of luck!



By **ADRIAN TUCKER**
KING RICHARD SCHOOL

Coming Soon!

Technicians Lists for All Units

A comprehensive guide for lab technicians detailing equipment needed and referenced to the Schemes of Work.



Content Searcher

This new powerful search facility helps you to find exactly what you want. With the help of a number of different searches, you can look through the course in several ways. Either: alphabetically, by subject or by topic, by keyword. Each of these will filter through the course, picking out the relevant information. A quick-link feature jumps you directly to the page you need. The Content Searcher will help you to make use of the course in cross-curricular areas including GCSE Science and KS3.

Resource Centre

As you are probably aware, one of the latest developments on the course has been the introduction of the Resource Centre. This area has been created to enable all of us to share information. New worksheets, tracking templates, lesson ideas and extra help with practicals and write ups are all available. If you have useful materials you have prepared, why not share them on the Resource Centre. It's easy to contribute your own work – simply click the Resource Centre link from the front page of the course and follow the instructions. If you need any help or guidance, please contact Jan at info@3es.com.

Coming soon to the Resource Centre:

- Unit 1 and Unit 3 Pulleys
- Unit 6 worksheets covering: Cloning, GM plants and transgenic animals
- Unit 6 worksheet to support production of yogurt under optimum conditions
- Unit 6 extra information on cloning

Some of the more recent movies include:

- Unit 4: Parcel Bomb Blast
- Unit 6: Interactive Genetics
- Unit 6: Investigating Yogurt Production
- Unit 8: Endangered Species
- Unit 10: Light and Colour

Information & Communications Technology in Science

There is no doubt that use of ICT has become an increasingly essential tool in the workplace. If we are truly to prepare our students for the world outside these four walls then we must ensure that their level of ICT competence will allow them to flourish in the technological environment they face.

Schools have adopted many different models in an attempt to deliver an effective ICT curriculum; from cross-curricular to discrete subject lessons via every stage in between. There are advantages and disadvantages to every method, but it is our belief that, although specific skills need to be taught, the emphasis in later years must be on the use and application of computers in real life contexts. This

is where we believe science departments can play an exciting and key role.

The New CLAIT suite from OCR has qualifications at three levels, the CLAIT plus certificate is an NQF level 2 qualification and it is our intention that all students will gain this through the course of KS4. The strength of the CLAIT course is the 'Solutions' units where assignments can be written by centres to fit into a

context. Between the Science, Maths and Technology faculties, three solutions units are going to be covered, and within the areas covered in the GNVQ intermediate course the Database topic can be easily covered. In Unit 4 – Forensic Science the use of databases features prominently and we are writing assignments that allow students not just to interrogate, but also design and build their own databases for the storing and retrieval of information. Whole crime scenarios can be developed in which information must be stored, sorted and analysed to reach conclusions and generate further lines of inquiry. We firmly believe that allowing students to use ICT in this context not only enriches their skills in ICT, but also helps them to relate the science content to life beyond the laboratory.

Key Stage 3 ICT



This newly developed course has been written by a practising ICT teacher and programmed by the very successful 3E's multimedia development team. The software uses leading edge technology to provide an exciting, interactive course for KS3 students of all abilities. Mapped to the ICT National Curriculum requirements and accompanied by comprehensive teacher guidance, the course will be available later this term. Attend one of the free demonstration days to find out more about how to improve the attainment levels in ICT at KS3 and change for the better the way ICT is taught in your school. Find out more at www.ks3ict.com.

3E's Training Courses

Spring and Summer 2003

3E's Enterprises and the 3E's Federation of Schools are delighted to invite you and your staff to attend one or more of our courses and demonstration days, which are taking place in Federation schools during the coming months. The sessions range from demonstrations of the very successful GNVQ Science and the newly developed KS3 ICT online interactive courses through to school-based training days on a range of subjects, including the International Baccalaureate, brain based learning and innovative approaches to curriculum design and change management.

Reduced Licence Prices

The continuing popularity and increasing take up of the course has led to a review of the pricing structure and we are delighted to pass on to customers some of the savings we have been able to make in the development and production of the course. Please check the rate card below to ensure that you obtain the greatest benefit from the new pricing structure.

SAVE UP TO
£1995
PER YEAR

| START DATE for which you purchased the course | CURRENT ANNUAL FEE for a 2 year contract (exc VAT) | NEW PRICE (exc VAT) | EXTRA DISCOUNT AVAILABLE | MAX. SAVING on original price |
|---|--|---------------------|---|-------------------------------|
| SEPT 2001 | £2995 | Year 3 | Purchase Years 3 and 4 together for £2000 and save an additional £250 per year, ie. £2000 for the 2-year contract | Year 3 |
| | | Year 4 | | Year 4 |
| SEPT 2002 | £2995 | Year 2* | Purchase Years 3 and 4 together for £2000 and save an additional £250 per year, ie. £2000 for the 2-year contract | Year 2 |
| | | Year 3 | | Year 3 |
| | | Year 4 | | Year 4 |
| SEPT 2003 | £2995 | Year 1§ | Purchase Years 3 and 4 together for £2000 and save an additional £250 per year, ie. £2000 for the 2-year contract | Year 1 |
| | | Year 2* | | Year 2 |
| | | Year 3 | | Year 3 |
| | | Year 4 | | Year 4 |

* - Training days in Year 2 can be purchased separately – please see details below.

§ - Schools starting the course in September 2003 will receive 2 free training days in Year 1.

Tailored Training Sessions

From Year 2 onwards, tailored training days to suit your school's particular needs will be offered at the following rates:

- Full day's training on your school site: £1000+VAT for up to 15 delegates
- Full day's training at The City Technology College, Kingshurst: £150 + VAT per delegate
- Half day's training at The City Technology College, Kingshurst: £80 + VAT per delegate