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Science Online
 The Newsletter for Science Online Teachers
n e w s

Preparing portfolios for the exam board

Preparing coursework for the moderator can be a stressful experience. Below are a few pitfalls that can be easily avoided and makes that whole moderation process run smoothly for students, staff, moderators and the Examination Board.



By **ADRIAN TUCKER**
 King Richard School

- Ensure that your students have the correct numbers of tasks for each portfolio and that each portfolio is complete. A common mistake is where the student has completed tasks that cross over units 1 and 3, and the work is put in one of the portfolios and therefore is not in the other one. A photocopy of the work will sort this out and ensure that the portfolios are both complete.
- One task for unit 1 must be an extended one. This is defined by the Examination Board as being at least eight days. Growing barley or monitoring yeast both fit this well.
- It is important to be sure that the correct tasks have been carried out for unit 1 and 3 and that the banner section at the top is fulfilled.
- Annotation of work is helpful to the moderator as it points to where the criteria have been awarded. This is best done by reference to a specific page number on the front grid. A system of numbering each practical (e.g. 1C for the first chemistry piece) is confusing; best practice is simply to number the pages 1 – X and reference to this. It is also helpful to highlight or underline the section on the page where the marks have been awarded.
- Read the report from the examination board and after you have submitted work, the moderators report on your centre. This will include helpful advice and best practice.



Resource Centre

The latest addition to the Resource Centre has been Module 2 of the Broadlands Approach – ‘Monitoring the Activities of an Organism’. This consists of 10 lesson plans, 6 worksheets and 2 OHTs focused on sporting performance. Topics covered include breathing, circulation, and the heart – as well as stamina and reaction tests and spirometer and heart rate traces.

To contribute to the Resource Centre, simply e-mail the documents to info@3es.com or follow the instructions on the website.



Getting more out of Digitalbrain

Having the option to work online has proved a very powerful classroom tool. Students quickly learn how to benefit from the technology, using the functionality of Digitalbrain to really make a difference to the way they work.

Getting started

To make the most out of Digitalbrain, it is best to use the Internet where possible. This gives you the opportunity to access a Resource Centre for worksheets, help sheets and useful websites, as well as lesson plans, schemes of work and technicians' lists. It also gives you the option of saving students' work onto the Internet so both they and you can access it from home and school. Here are a few hints and tips that might help you:

button **upload** and follow the instructions given. Documents are uploaded in much the same way as attachments on emails.

3. If you would like students to see what you have uploaded, they can click on the **visit user** icon and type in your username. This will take them to your homepage, where they access your webspace and click on the relevant files.
4. If you want to make files private, please see the 'Restricting Access to Files' section of the Digitalbrain Help document (referenced below).

Logging on

Firstly, get onto the Internet and type in the address of your school portal **http://schoolname.digitalbrain.com** e.g. **http://kingshurst.digitalbrain.com**.

Now you are ready to log in.

1. To do this, click on the green log in button **log in** and type in your Digitalbrain username and password.
2. To access the Science Online course, simply click on the GNVQ Science tab at the top of the page.

Your Digitalbrain

You have your own individual space on the Internet called your **Homepage**.

1. Click on the **my digitalbrain** icon at the top of the page.
2. If you would like to store work, click on your **webspace** folder and press the **upload**

e-mail

All users of Digitalbrain have an email facility.

1. To read your emails, click on the inbox icon in the toolbar at the top of the page.
2. To send email, click on the envelope icon . Your email address will be username@webmail.digitalbrain.com.

Preparing lessons

1. Schemes of work, lesson plans, technicians' lists and resources are all available in the Teacher Guidance section of the course.
2. To select additional movies that are relevant to the topic you are covering, use the Content Searcher.
3. If you are using many different movies in a lesson, you can make navigating them easier by using Links.
4. Firstly, copy all of the website addresses of the movies you want in your lesson. Then click

Useful links

on the **links** icon from your Homepage followed by the new button **new**. Select Link and follow the instructions given. During your lesson, students visit your Homepage and select Links.

1. Digitalbrain Help document:
Comprehensive information regarding teaching the course using Digitalbrain: From the GNVQ Science Homepage, click Teacher Guidance, Resource Centre, General, then the DIGITALBRAIN HELP link.

2. Complete guide to Digitalbrain:
An all-encompassing guide to Digitalbrain including information on setting up your portal: Click on the **help** icon on the toolbar at the top of the page.

3. Other KS3 and KS4 Resources:
Resources and links to a wide range of other subjects: Click on the 'Secondary' tab from your school portal.

Using Digitalbrain has transformed the way students work, removing the boundaries of the classroom. Students have embraced the technology allowing them access to their work across the curriculum from home and school. It's simple and effective – try it out!

Internet zone

Tackling an Optional Unit

The Science of Sports Equipment



By **ANDY GUEST**
Broadlands School

The science of Sports Equipment provides an excellent opportunity to engage students by using their everyday experiences to explore the world of materials science. The Online course provides a wealth of resources to explore the properties of training shoes, but for the adventurous student and innovative teacher any piece of sports foot wear from skateboard boots to ballet shoes can be studied and experimented on.

The key to success with this unit is to for the students to plan their investigation with support from the teacher to ensure that the focus of the investigation is not lost. Students are required by the specification to compare different materials for the same piece of footwear and discuss how the choice of the material by the manufacturer was dictated by the requirement of the shoe. Discussions about the importance of the material's properties should be backed up by experimental data and reasoned conclusions explaining why one material is more suitable than the others. A common error made by students is that they compare different sports shoes without ever really discussing why specific material choices were made for individual shoes.



Lost property or staff with growing children are a good source of training shoes that can be tested to destruction. Cutting each shoe in half with a band saw prior to the investigation allows students easier access to the materials used in the sports shoe –and also doubles the number of shoes you have!

We tend to teach students the skills of materials testing before they are let loose to plan their own investigation – the only constraints we place on them is that they must test a minimum of four different materials for each component of the

shoe they consider. A simple search of the Internet provides many sites dedicated to the materials used in sports shoes; this allows candidates to explore the properties of some advanced materials used in modern manufacture to help support their practical conclusions. For those at Distinction level some material science sites give a good explanation of testing on a commercial level. As with all work in this vocational course this is another good opportunity to take advantage of an industry around you –from a tyre company to a tile factory – although the focus of the assessment is on sports footwear don't be afraid to explore the wider world of materials and their properties.

This unit is guaranteed fun, and by ensuring that one eye is kept on the assessment objectives the possibilities are limitless – details of the practical techniques are well animated on the Online resources, and printable colour work cards for students are available in the Resource Centre.

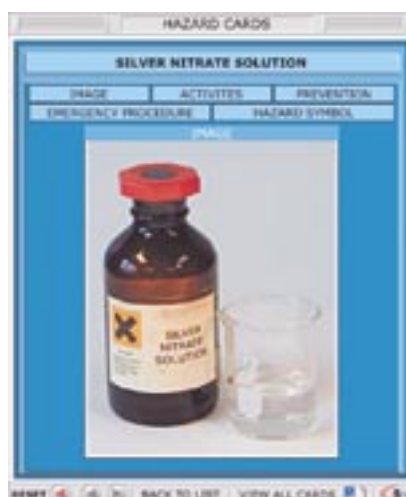
But most importantly – enjoy it!

Coming Soon

Hazard Cards

This new movie details 40 of the most common substances used on the course with photographs of each to aid identification. There is a list of the activities where each chemical is used, together with general safety information covering prevention, emergency procedures and hazard symbols.

Alongside this, there is a Word document with printable versions of the Hazard Cards containing all the information from the movie.



Resource Centre

There are online support materials on the Resource Centre covering a range of topics including; Unit 1 Chemistry worksheets, how Severn Trent test for ions in water, an alternative to both 1.2a 'Preparing Sodium Hydroxide Solution' and 1.1b 'Titration' and useful websites; Unit 2 worksheets on the Periodic Table; Unit 3 Chemistry worksheets and an extra practical on extracting copper by electrolysis.

Introducing GNVQ Science in Haringey Council

The London Borough of Haringey is located in the centre of North London and covers an area of 11.5 square miles. It boasts a rich cultural diversity of ethnic minority groups including Greek and Turkish, African and Caribbean, Indian, Pakistani, Bangladeshi, Irish, Chinese, Kurdish, Albanian and Somali. A very significant percentage of the school population is bilingual.

In September 2003 Year 10 pupils from John Loughborough School, Park View Academy, White Hart Lane School and Grieg City Academy started the GNVQ Intermediate Science course.

The Introduction of GNVQ Science to the schools was carried out over the course of the summer 2003 term. The carefully work out process involved :

- Introducing the Kingshurst Scheme at a Heads of Science meeting
- Organising a visit to Kingshurst
- One to one meetings with individual Headteachers and other key staff to further outline the benefits of doing the course
- Formation of a GNVQ science collaborative of Science departments.



By LLOYD FORSTER
Science Consultant, Haringey LEA



The idea of forming a collaborative was carried out as a way of establishing GNVQ Science expertise within the LEA and in addition to the support available from Kingshurst Technology College. Schools participating in the collaborative formally agreed to the following aims:

- Effective delivery of GNVQ Science over a two year period (2003-5)
- Joint planning of course materials
- Joint moderation of pupil portfolios for submission to the agreed examinations board
- Sharing of resources between participating schools

In everyday and practical terms the collaborative provides help and expertise outside of their departments. It has also provided much needed confidence for all colleagues especially the perceived daunting task of introducing a new course into a department.

In addition to supporting the coordination and smooth running of the GNVQ collaborative, the LEA also provided resources to support departments:

- Payment of first and second year fees for the online scheme
- Provision of Interactive white boards and projectors
- Buying in extra in class support from an external consultant

The strategic importance of the initiative has been the use of GNVQ science to target support for pupils on the C/D border and also those who might have been entered for single award science. The project also goes some way to satisfying the need to provide vocational and alternative courses at KS4.



3es multimedia

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Educational Product Showcase



Science Online
The Science Online course covering GNVQ

NEW!



KS3 ICT
A complete interactive resource to deliver Key Stage 3 ICT.



NutritionLand
An interactive nutrition and healthy eating resource ideal for KS3 students.

COMING SOON!

Work Experience Tool
A highly-effective and cost efficient solution for employers to provide quality work experience placements.



COMING SOON!

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