

FLASH-SCIENCE

CREATIVE AND INTERACTIVE SCIENCE CD-ROM



CLICKSCIENCE

SEE US AT BETT 2006 - STAND V6 NATIONAL HALL



OCR NATIONALS

3E'S WORKING WITH OCR ON NEW SCIENCE NATIONAL



KEY STAGE 3 ICT

INTUITIVE MULTIMEDIA PACKAGE FOR KS3 ICT



TOP: Mountain gorilla - Rwanda TOP RIGHT: Giraffe - Etosha National Park, Namibia BOTTOM RIGHT: Sunset in Zanzibar (Photography by Adrian Tucker)



Real Live Examples to Support the Curriculum

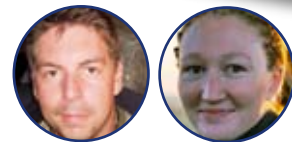
As many of our existing Science Online clients know, Adrian Tucker has been travelling around the world with his partner, Helen. They have now completed their six month sabbatical and have decided to settle in New Zealand for two years.

Adrian has returned to teaching as Head of Science at St. Mary's College, Ponsonby, and Helen is teaching

at Parnell College, Newmarket, Auckland. Whilst away, Adrian – the big softy – proposed to Helen on the Zambezi River by Victoria Falls in Zimbabwe. We all wish them the very best for their future together. Adrian and Helen are continuing to help us here at 3E's Multimedia by writing content and with the further development of ClickScience.

Mountain Gorillas

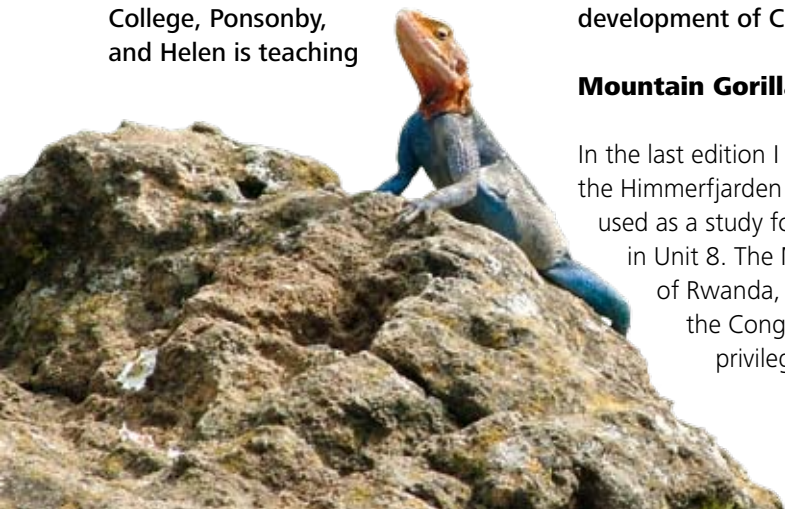
In the last edition I explained how the Himmerfjarden website could be used as a study for eutrophication in Unit 8. The Mountain Gorillas of Rwanda, Uganda and the Congo (that I had the privilege of visiting)



By Adrian Tucker & Helen Waters

provide a possible alternative. There are only about 700 of these left in the world and they live in Rwanda National Park. Each gorilla family is provided with armed guards and trackers 24 hours a day. This is to protect them from poachers. Contact with tourists is strictly limited to avoid over exposure. Numbers are beginning to rise, although conflict still threatens them as subsistence farming climbs higher and higher up the mountains they inhabit. The Dian Fossey Gorilla Fund supports the protection of these beautiful creatures. More information can be found at:

- <http://www.informatics.org/gorilla/>
- http://www.nationalgeographic.com/kids/creature_feature/0007/gorillas.html



Real Life Examples to Support the Curriculum



TOP LEFT: Ugandan Primary School TOP RIGHT: Lions in The Serengetti National Park BOTTOM RIGHT: Sand Dunes at Sossusvlei, Namibia

CONTINUED FROM FRONT PAGE

Venice

Pick up a copy of the "Lonely Planet" for any European City and the chances are you will be presented with a whole list of churches and cathedrals that would take days to visit in their entirety. The stained glass windows of Notre Dame, The Vatican, and St. Marks to name but a few, led me to attend a glass making workshop while I was in Venice. The colour of glass is determined by the addition of metal ions. Iron, manganese and gold are used in the process to make the colours of the final pieces, be they bowls, glass or stained glass windows. There are still glass blowing workshops in the UK and they may be another possible source of material to include in a Unit 1 or 3 topic. The following websites also provide information that could be included.

- <http://chemistry.about.com/cs/inorganic/aa032503a.htm>
- <http://www.doge.it/murano/muranoi.htm>

Staying in Italy, Florence is the home of some of the finest leather workshops in the world. Again the colours found in the pieces are obtained from the use of

metal ions, as well as natural dyes from plant products. This material could be included in a Unit 7 project.

Istanbul (Not Constantinople!) is home to the imposing Blue Mosque. The interior is lit with lanterns that burn sesame oil rather than paraffin because of the very small amount of smoke. The reason for this is to preserve the impressive interior from carbon deposits. This is again relevant to Unit 7 with the comparisons of fuels.

Brewing has been a popular feature of the GNVQ course through either Unit 3 or Unit 6. For those of you who are getting a little bored with beer, wine may provide an alternative. The vineyards of Stellenbosch in South Africa make some of the best wines in the world, and although producing a red or white to grace the dinner table may be a bit unrealistic, exploring the factors involved with the fermentation process would be easy to do in the lab. In Uganda and Kenya, the local brew is made using plantains and maybe a possible alternative is to investigate the substance that is fermented.

On a final note, and not related to the GNVQ at all I would like to mention soft power education who work in Uganda. They support the maintenance of schools by coercing

backpackers, like myself, to give up a few days of their travelling and paint, build or provide in class-support in a school. They would love to hear from any schools wishing to donate, sponsor or just correspond with students in Africa, and can be found at the following address:

- <http://softpoweruganda.brinkster.net>

BELOW: Glass work - Venice



Introducing Flash-Science

Flash-Science is a creative and interactive Science CD-ROM resource that can be used by all abilities throughout KS3 and KS4, bringing science to all abilities both visually and textually.

Learning Material

The learning material supports GCSE Applied Science (Double Award) which covers both Levels 1 and 2 of the National Framework Qualifications, and the relevant areas of GCSE Science (Double Award). The material has been designed for students of all abilities and is appropriate for all awarding bodies.

It has a practical navigation system divided into 3 units:

Unit 1 – Develops scientific skills and visually demonstrates the procedures in carrying out practical activities.

Unit 2 – Delivers the knowledge of the needs of society using stimulating animations and clearly written text.

Unit 3 – Takes students through practical experiments meeting the main components of the awarding bodies specification.

Themes

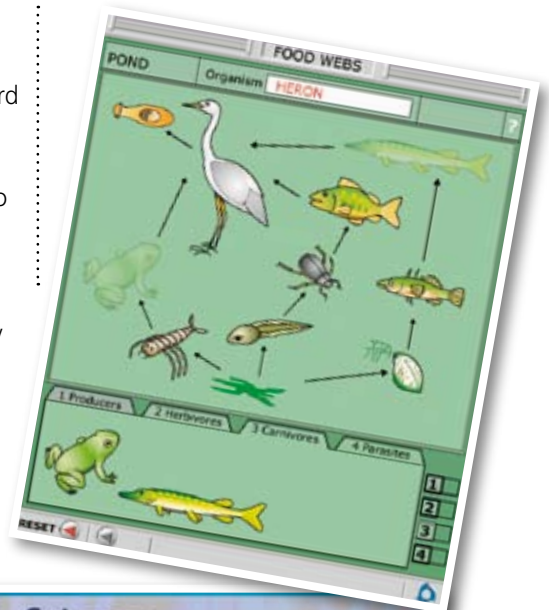
The content is divided into themes relating to the main concepts. These are divided again into short topics that can be delivered in lesson blocks. Where needed, within the lesson blocks, are skill sheets and templates to support the delivery of the content in the classroom.

Flash-Science is also indexed to the National Curriculum subject areas which then match to the Double Award and Applied Science.

The package also includes full integration for whiteboards, but is also easily usable on PCs with individual students.

Flash-Science contains exciting, engaging animations with explanatory text documents and is backed by supportive text for students assessment.

Dynamic activities can be used in whole classroom situation or for independent study.



www.flash-science.co.uk

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£350
+VAT



KS
3 - 4

PC/
MAC



ClickScience

Showcasing at BETT 2006 –
National Hall Stand V6

ClickScience is an online interactive multimedia resource designed to cover all the topics covered within the new National Curriculum.

As Science qualifications are changing we are incorporating into ClickScience Core, Additional (Additional Applied) and Extension for GCSE Science along with material for the following:

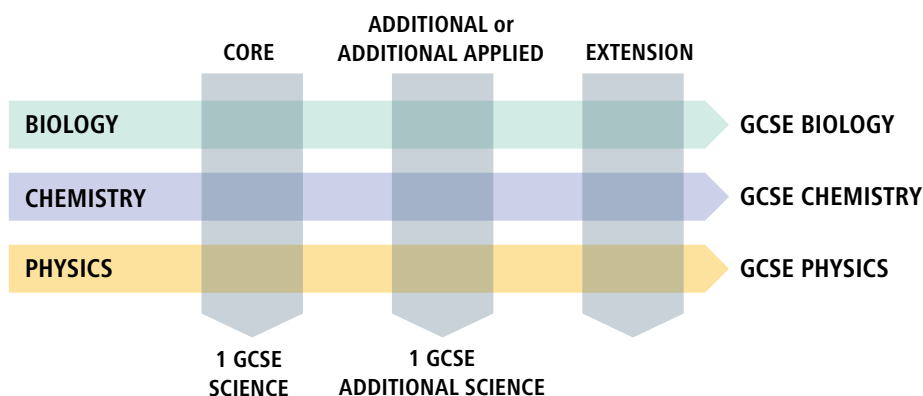
- Entry Level
- AQA Applied
- Scottish Standards
- The New OCR L2 Nationals in Science
(when accredited)

All sections are levelled and back referenced to the KS3 programme of study and Science AQA units to further aid progression and differentiation.

How Science Works

Future content will also refer to the 'How Science Works' section of the new programme of study. We hope to include stand-alone content and activities for this section.

Many of the examination boards are offering assessments through practical based laboratory activities. ClickScience will aim to provide support for this and will be developing an ongoing set of resources in response to the assessment criteria when ratified by the examination boards.



INCLUDED WITHIN CLICKSCIENCE ARE:

LESSON BANKS

Components are tagged so they can be inter-linked in various formats giving a flexible individual student approach to learning including various syllabus coverage

CASE STUDIES

Extend student learning into activities that will allow students to gain an understanding of the scientific world of work. Bringing realism to the subject areas and supporting businesses and individual understanding

CAREER PATHS

These give a direction to student learning, for a purpose in life. Case studies and lesson banks link students actively to career knowledge

CORE

Material for literacy, maths and ICT will be developed and incorporated

Lesson building

Teachers will be able to use ClickScience as a resource for lesson building. The platform will allow searches to be completed using keywords, or by syllabus code relevant to the specification you are following. At present, material is tagged to the new GCSE specifications for AQA, EdExcel, OCR and Welsh Board. This will be extended to include tags to the new OCR Level 2 Nationals in Applied Science (the replacement for GNVQ) and Entry Level Science.

Government requirements

Functional subjects are forming an ever more important part of our teaching. Maths and Communication are highlighted within scientific activities to support Government requirements that all students will need to achieve.

E-assessment, an important self-assessment tool, will also be included along with e-portfolio assessment which will manage and record students work and achievements.

Key Skills

Throughout, ClickScience activities are referenced to Key Skills Level 2. This includes:

- Application of Number
- Communication
- ICT
- Improving own Learning and Performance
- Problem Solving
- Working with Others

In many cases, specific and relevant Key Skill activities form part of the teaching and learning environment. They are not just an addition but an integral part of the package.



Active learning

Everybody learns better if they enjoy the experience and engage with it. Click Science utilises active learning techniques to promote better learning. As well as the viewed content, you might also find active learning ideas such as:

- Acronyms
- Pneumonics
- Image-Name Technique
- Mind mapping
- Concept Cartoons
- MAD Learning
- Using all the Senses Learning
- Chunk it Down
- Writing and Talking Frames

Pilot

ClickScience is being piloted by 3E's Multimedia at the moment with some existing clients. We want to work with all our current Science Online users to ensure that the new ClickScience will meet all your future needs. We will be showcasing this at BETT 2006.

Advocates

We would like to hear from our existing clients if they are interested in becoming an area advocate for our new product. Please contact Jan for further information.

www.clickscience.co.uk

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KS4

SMART KS3 Interactive Toolkit

3E's Multimedia were commissioned by SMART Technologies to design a KS3 interactive toolkit to work specifically with their own technology and to compliment their new Notebook 9. This was showcased at BETT 2005.

The toolkit contains 20 flash activities which function via the main toolkit icon based controlled menu, or as standalone library objects for Notebook 9.

SMART Accreditation

As the sole representative for SMART products in the UK, Steljes runs the only authorised accreditation programme for software aimed at the education, corporate or public sectors. Under this

programme they test and approve software developed by leading independent software vendors for use with the SMART Board interactive whiteboards and Sympodium™ brand products.

Whiteboards

With more schools purchasing and updating whiteboards there is a greater need for compatible teaching material.



Therefore 3E's Multimedia have become SMART Accreditation Partners. Our Science Online and KS3 ICT products are now fully approved and SMART accredited. 3E's Multimedia will be looking to gain accreditation for all future products.

Welcome to the future . . . OCR Nationals in Applied Science



OCR's Vocational Assessment division has begun work on the new Level 2 OCR Nationals in Applied Science*. The OCR Nationals are motivational, flexible, vocationally-related qualifications providing work-related learning across a number of sectors.

They provide valuable opportunities for individuals to develop skills and gain underpinning knowledge and understanding which support entry into work, or progression to further studies. Early indicators suggest that the structure of the new OCR Nationals Science will be:

These two qualifications will marry many elements of the three science disciplines into each unit, so that learners adopt a more holistic approach to the study of Science. The OCR Nationals in Science will also be practically based. The aim is to equip learners with transferable scientific skills that will aid them in the world of work. The model assignments, which will be used to assess learners, will be hung on case studies that require candidates to apply their scientific knowledge to commercial problems.

The OCR Nationals in Applied

Science, like the rest of the qualifications in the suite, will be entirely centre assessed and externally moderated. They will also be a suitable alternative to the GNVQ in Applied Science, which will be withdrawn in 2007.

3E's Multimedia are developing, and piloting, a new product called ClickScience as a means of providing support material for the OCR Nationals in Science. ClickScience will contain many of the current materials contained within 3E's Science Online product, along with a wide range of new resources and ideas that encompass the concepts of the Tomlinson Report, and which will also support other qualifications.

**Subject to QCA accreditation*

§ The OCR National in Applied Science Award and Certificate are working titles and may be subject to change

Level 2 OCR National in Science§	Number of Units	Guided Learning Hours	Other qualifications of the same size
Award	3	180	2 GCSEs
Certificate	6	360	4 GCSEs/GNVQ Intermediate

OCR have commissioned a survey on the new National in Science. The link to the site is: www.ocr.org.uk/sciencenationalsurvey. Your comments and feedback on this new qualification are very important to both OCR and 3E's Multimedia.

Key Stage 3 ICT Software Package

APPROVED FOR
SMART Board™
Interactive Whiteboard I UK

This software package, which was launched in February 2003, has been designed specifically to emulate the National Curriculum. Intuitive multimedia content guides both students and teachers in an enjoyable and highly effective manner.

Since its launch the ICT Package has been accredited by Curriculum Online. Evaluation of this product has been completed by Evaluate – The Digital Evaluation Service (The Guardian) and School Zone. It is also SMART Accredited.

Teaching Aid

Teachers have embraced this software package in the way it was intended, that is, as an aid to teaching. Schools have embraced the idea of introducing projects in other subject areas and have positively recognised the advantages of using the package to address differentiation. Within each project there

are opportunities for students to work at their own pace, allowing students with less ability to learn through practice and interaction. High ability students are challenged to develop more complex IT skills and work towards level 7 and exceptional performance.

“Fantastic – best ICT resource I have purchased in the past few years.”
Cornwall

“Excellent, great graphics in demos, clearly laid out, accessible to all.”
Kent

Key Stage 3 ICT is by no means a teacher replacement. Teachers and students benefit from working through projects with supporting tutorials. Tutorials have been specifically designed to encourage students to aim for higher levels in the ICT National Curriculum.

The package includes full information for teachers offering:

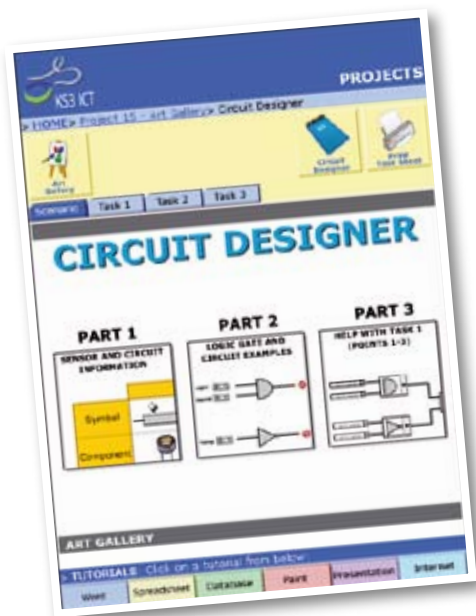
- Suggestions for schemes of work
- Guidance on how other subject areas could incorporate projects into schemes of work
- Details of how level indicators have been sorted into programmes of study
- Grids to show which projects include which levels
- An assessment tracking grid
- User guide



This teacher aid will improve the attainment levels of ICT students at KS3 and will change the way ICT is taught in the classroom for the better.

“I like the way it will run as HTML pages in the browser – this means no complicated setting up of local workstation files.”

Suffolk



www.ks3ict.co.uk

t 0121 329 8366 | f 0121 779 1317 | e jan.richards@3es.com

£199



KS3

PC/MAC

Meet the team

Based in Kingshurst, Birmingham, the 3E's Multimedia team comprises of wide variety of skills, experience and personalities.

David Moore Multimedia Director

Director of 3E's, with responsibility for Multimedia, David has been a Physics teacher, Head of Science and Deputy Headteacher in schools in the West Midlands. In 1988, he became Chief Executive of the Association for Science Education (ASE). There he devoted time and energy to help teachers use ICT effectively and to make the teaching of Science more interesting and understandable. He retired from ASE three years ago, but continues to take an interest in science education.



Jan Richards Project/Administration Manager

Jan has been with 3E's for eight years, initially as PA to Stanley Goodchild. For the last four years she has worked full-time for the Multimedia team. Jan is the hub of the team coordinating the administration, development, writing and production of the new products. Jan is an extreme animal lover, with two Akitas and four moggies. She is also a qualified Interior Designer!



Mark Bragg Production Manager/ Senior Developer

Mark has worked for 3E's forever and has been instrumental in the development, design and production of all its products. Mark is currently working on the development of ClickScience. Mark is married to Sarah and they are currently celebrating the birth of their son, Alexander.



Teresa Burrell Content Development Manager

Teresa joined the team in May having taught Science for the past ten years. As well as being a qualified web designer, she is also a writer, photographer and gardener. Teresa lives in Sleaford, Lincolnshire and runs a stained glass business from home. Her great passion is nature and she's happiest on a surf board!



Stuart Tawse System Administrator/ Developer

Stuart joined the team four years ago. He ensures the network is operating and supports all hardware and software matters in-house. Stuart currently works on bespoke website designs. He was the lead developer on our successful KS3 ICT package and is assisting with ClickScience. His other passion is cars and would love to work in a car styling garage.



Caroline Monk Creative Developer

Caroline primarily designs websites and designs digital e-learning solutions. She has an artistic background which she integrates with new media solutions. Caroline has also been known to throw a few dangerous implements on the athletic field, hoping to make the national side before old age kicks in!



Luca Gilbert Creative Developer

Luca has worked in multimedia for nearly six years and joined 3E's a year ago. He specialises in the 3D images for ClickScience. With a long and fruitful history designing websites in the commercial sector, Luca feels he has gained valuable experience which provides a broad base for use in the education sector.



Debra Ashington Creative Developer

Debbie has a track record of employment within the educational field; she is particularly interested in e-learning and e-assessment. Progressing from an artistic background, she is currently designing and producing illustrations and graphics for the Flash-Science course. In her spare time she enjoys travelling, swimming and reading.



David Preece Technical Developer

David is an ActionScript programmer and has recently joined the team from an educational environment. David enjoys Flash development and the challenging problems which it entails. In his spare time David enjoys running, socialising and going to gigs.



Paul Hammond Creative Illustrator/ Developer

Paul specialises in the development of interactive content for both entertainment and educational purposes. Following nine years of working in the multimedia industry, Paul has recently joined the 3E's production team. Away from work, Paul enjoys drawing, cooking and travelling.



Sarah Bragg Senior Content Writer/ Advisor

Sarah joined the Science team at The CTC Kingshurst in 1998. Sarah has been involved in the production of materials for Science Online and ClickScience. In her spare time she enjoys the outdoors and extreme sports as well as travelling abroad. Although at the moment she is enjoying being a first time mum.



Richard Parkes Senior Content Writer/Advisor

Richard has a wealth of experience in industry and education. He joined the Science team at the CTC in 1991, and has developed and helped write content for 3E's including the Science of Brewing and Science Online. Richard also played a major part in the training and support of teachers using these products. Richard is currently working with OCR helping them to develop the new Level 2 National in Science.



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