Virtual Image News

Issue 2
May 2005

Welcome to your second Virtual Image newsletter. In response to feedback from our customers, we began sending out bi-monthly newsletters back in March and we hope you are finding them useful and informative. Each of the newsletters contains ideas that you can use in the classroom, articles on issues of current interest and the opportunity to win some of our market-leading software.

This issue looks at a range of topics including:
1. The West Midlands goes Nubble! mad
2. Winner's enclosure
3. From the classroom
4. What's new
5. Software competition
6. New website

We hope you like it!

1. The West Midlands goes Nubble! mad
The Education Show held in Birmingham every March is believed to be one of the largest exhibitions for teaching professionals in the world and anyone that visited Halls 7, 8 and 9 of the NEC this year could see why this is true. Thousands of teachers, co-ordinators, advisers and students flocked to the Arena to see the latest products, services and innovations on offer and the event was a huge success for all involved. Our stand attracted many visitors, particularly as we used the event to launch our unique mathematics product: Nubble! Not only did we demonstrate the software, but we had the creators of the board game on hand to answer questions and offer advice.

As soon as we began playing Nubble! on the first day of the exhibition, crowds of people came to join us in our quest to 'beat the software'. The sound of the dice rolling became an integral part of the exhibition and pretty soon hundreds of Nubble! addicts were desperately adding, subtracting, multiplying and dividing numbers in an attempt to get the highest score. This frenzy of activity and interest manifested itself again at the BCME-6 mathematics conference held at Warwick University. Hundreds of delegates took up the Nubble! challenge and it is safe to say that many of the delegates and all of the exhibitors were true Nubble! addicts by the end of the conference.

All-in-all both these events were extremely enjoyable for us as we got the chance to meet with so many of you. Many thanks to everyone who came to see us and if you are one of the few yet to unleash the power of **Nubble!** into your classroom then you can visit our website for a free download.

2. Winner's enclosure
Congratulations to the winners of our **Education Show 2005** and **BCME-6 Mathematics Conference** software prize draws:

- K Cowell, Head of Mathematics at Northampton High School (Education Show winner)
- Gillian Jones, Teacher in Leamington Spa (BCME-6 winner).

These lucky winners have selected software of their choice from the ever-increasing Virtual Image range.

We would also like to congratulate **Robin Waterston from Madras College, St Andrews**, the winner of the competition featured in our very first newsletter. The problem was:

John was playing his new Nubble! software. He was playing against the computer. During the game the computer rolled the four dice and obtained the throw (4, 4, 6, 6). The computer placed its counter on hexagon 33. The game ended when John completed a line of counters from hexagon 1 to hexagon 100. He threw (1, 1, 1, 5) and placed his counter on hexagon 1.

Using addition, subtraction, multiplication and division, how is it possible to combine the numbers (4, 4, 6, 6) to obtain 33, and the numbers (1, 1, 1, 5) to obtain 1?

The answer is:
$1 = 1 + 5(1 – 1)$
$33 = 6 \times (4 + 6/4)$

Many thanks to everyone who entered our competition and if you didn't win this time, why not try again and enter this issue's competition detailed below.

3. From the classroom
Recent surveys have shown that whilst more and more classrooms around the UK now have interactive whiteboards, there is still an urgent need for more training. In this issue, we have asked the respected interactive whiteboard and computer resources trainer, Alan Catley to tell us about some software that he uses in his own classroom.

Successful software
It is hard to believe we are now five years into the 21st century. As the previous one drew to a close we teachers in maths classrooms around the country started to hear about 'Curriculum 2000'. When the detail of the changes planned at A' Level were known I, for one, was horrified. I looked at what was to be expected of my students about to embark on the new A/S Level qualification from September 2000 and thought… "they've taken the old A' Level syllabus, cut it in half, and then they are going to asses the first half in May/June of lower sixth!" This meant that I had to find some way of getting students to 'hit the ground running' as soon as they began their selected A' Levels in September.

During the summer of 2000 a 'flier' and 'sampler CD' arrived in the post from Virtual Image. Rather than file it I actually put the CD into a computer in our Learning Resource Centre. It took only five minutes for a colleague and I to agree that this 'looked good' and was worth a try.

We viewed the Algebra, Trigonometry, Mental Arithmetic and Fractions 'suite' of four CD's and as we had projection facilities in one classroom thought it would be a useful resource. What I didn't realise at the time was just how 'flexible' this resource was going to prove to be. Whether bridging from GCSE to A/S Level or, at the other extreme, helping Foundation Level students get to grips with basic numeracy skills these resources have been used very effectively both in whole-class teaching and also for individuals to demonstrate they have mastered the necessary skills. We have developed a very clever strategy that gets students to provide 'certificated' evidence that they are able to, for example, solve 10 quadratic equations – this strategy works a treat as it 'marks' the students' work as they progress through each step of each question. This strategy is effective right across the ability range in improving motivation, understanding and performance.

More recently, Virtual Image's Maths Lesson Starters series has been used to get learners to engage in mathematical enquiry from the moment they enter the classroom – though this has only been possible after spending three years persuading our management that it is essential for us to have a computer and projector in each classroom! These four CDs offer an almost limitless array of lesson starters to help get the pupils really motivated.

This article has been contributed by Alan Catley. Further information about 'on-site' training possibilities is available by contacting alan@catley.org or telephoning 07855431818. Alan has 30 years' teaching experience and a reputation for enthusiastically delivering training to teachers to help them make effective use of computer resources in the classroom. All training is designed to suit the requirements of the individual school/college dependant and all the ideas used on courses have been tried and tested in the classroom over the past five years. You are welcome to get in touch for sample programmes, evaluation feedback and/or samples of lesson plans or worksheets designed to get the best out of selected software and websites.

4. What's new

- The launch of **Nubble!** at the Education Show was a resounding success and thanks to everyone that came to see this game in action. This product is causing quite a stir and pupils from all over the country are now playing this game regularly as part of their daily mathematics lesson. However, if you haven't seen this game yet, then you can visit our website and download a free demonstration version.

- **Great Mathematicians** is a unique CD-ROM that not only looks at the history of mathematics but also offers a wealth of randomly generated interactive maths problems. Supporting the teaching and learning of mathematics at Key Stages 2 and 3, the CD-ROM is the first in a series that will include: Great Scientists, Great Victorians, Great Explorers and Great Ancient Greeks. With background information written for the non-specialist, a wealth of activities to support the understanding of

mathematical concepts, and an inspirational insight into the lives of some of the worlds' greatest mathematicians, this
CD-ROM will motivate pupils by placing mathematics in a historical and cultural context. It will enable them to understand why mathematics is so important and why it has an impact on everyone's life.

- We have also released a new multi-lingual **Numeracy Lesson Starters** to support the teaching and learning of numeracy. The CD has been developed by experienced teachers to provide warm-up activities for the mathematics lesson. This innovative product offers the facility to select a range of languages including: Welsh, English, Dutch, French, German, Spanish and Italian. With a range of stimulating lesson starters and puzzles, this software has been designed to motivate pupils and enhance learning. The material can be used to support the teaching of all core mathematical concepts and covers number, algebra, shape, space and measures, problem solving and handling data.

5. Software competition

Each issue of the Virtual Image Newsletter will offer you the chance to win some of our market-leading software. This issue's problem is all about ISBNs – we hope you like it.

International Standard Book Numbers (ISBN numbers)
Since 1972, every book published has been given a unique identifying number that is used universally by booksellers, libraries and publishers as the 'tag' for that book. All ISBN numbers are currently 10 digits long (although by 2007 they will be 13 digits long).

Like many modern codes such as bar codes, bank account codes and credit card numbers, the final number in an ISBN code is a 'check digit'. It is used to check that the other 9 digits in the code are correct and that there hasn't been a mistake in copying the numbers down, or 'reading' them with an electronic device.

Calculating the check digit:
The check digit is calculated in the following way:

- Multiply the first nine numbers by 10, 9, 8, 7, 6, 5, 4, 3 and 2 respectively and find the sum of the resulting products.
- The check digit is the smallest number that needs to be added to this total so that it is exactly divisible by 11.

For example:
For an ISBN number that begins: 1-8699-3100-
The check digit would be calculated in the following way:

	10		9		8		7		6		5		4		3		2
	x	+	x	+	x	+	x	+	x	+	x	+	x	+	x	+	x
	1		8		6		9		9		3		1		0		0
=	10	+	72	+	48	+	63	+	54	+	15	+	4	+	0	+	0

= 266

The check digit is the smallest number that needs to be added to make 266 exactly divisible by 11.
24 x 11 = 264
25 x 11 = 275

So, the smallest number that needs to be added to 266 to make it exactly divisible by 11 is (275 – 266) = 9

Note. If the check digit number is 10, this is written as an X

Problem:
Below is a list of books. Only one of them has the correct ISBN number. Find out which book is correctly numbered by working out the genuine check digit. This book will then give you a clue to the identity of the Enigmatic Character. As soon as you have worked out who this character is, you can email us with your answer.

ISBN	AUTHOR	TITLE
0-93578-230-0	Simon Singh	The Code Book
0-93578-230-1	Anthony Babington	A House in Bow Street
0-93578-230-2	Andrew Hodges	Alan Turing: The Enigma
0-93578-230-3	George Atiyeh	The Philosopher of the Arabs
0-93578-230-4	John Guy	My Heart is my Own: The Life of Mary Queen of Scots
0-93578-230-5	Julius Caesar	The Civil War
0-93578-230-6	David Kahn	Seizing the Enigma
0-93578-230-7	Gordon Welchman	The Hut 6 Story: Breaking the Enigma Codes
0-93578-230-8	Doron Swade	Charles Babbage and his Calculating Engines
0-93578-230-9	Arthur Conan Doyle	Sherlock Holmes and the Adventure of the Dancing Men
0-93578-230-X	Lucy Lethbridge	Ada Lovelace: The Computer Wizard of Victorian England

When you have solved this problem, then please email jules@virtualimage.co.uk

The winner will be selected from all correct entries on 31 June 2005 and will receive a piece of Virtual Image software of their choice.

This problem was designed by Claire Ellis, Enigma Schools Project Officer,

Millennium Mathematics Project. The Enigma Schools Project aims to engage students with mathematics through the science and history of cryptography. Claire Ellis will visit your school with a genuine WW2 Enigma cipher machine delivering hands-on code breaking workshops to students of all ages from KS2 upwards. In her presentations, Claire shows how teachers can make good use of *The Code Book on CD-ROM*, developed by Simon Singh and Virtual Image.
For more information visit: http://www.mmp.maths.org/projects/enigma.html

6. New website
The Virtual Image website has undergone some changes. You can now download a demonstration version for any (or all) of our software direct from the website. Of course, we still offer a free demonstration CD profiling our software, which you can obtain by emailing email@virtualimage.co.uk but for ease of access and speed you can just visit www.virtualimage.co.uk and pinpoint exactly which piece of software you would like to evaluate.

We have also set up a forum for teachers. You don't have to be a Virtual Image customer to use the forum and we would really like to see a healthy level of debate going on within this section of the website. So if you have questions or concerns why not visit the website and add your message? We would love to hear from you and all Virtual Image authors, contributors and experts now visit this forum to join in with debates.

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Please do not reply to this email as it will not reach us. Please email jules@virtualimage.co.uk or go via the website www.virtualimage.co.uk and click the contact button.

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Virtual Image News is produced monthly by Virtual Image Publishing Limited. The next edition will be published in July 2005. You have received this email as a member of our mailing list. If you would like to unsubscribe from this newsletter, send an email to jules@virtualimage.co.uk stating that you would like to be removed from the mailing list.

Virtual Image produces software to support teaching and learning of mathematics, science, geography, history, literacy and French. For general enquiries about the software please visit www.virtualimatge.co.uk or contact us on 0161 480 1915.