MICROSCOPE

Issue 43

Autumn 1994

- Focus on multimedia
- Laptop computers
- IT and the humanities
- Let's ask Chris
- Christmas puzzles
- IT and obsolete technology

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MICRO-SCOPE 43

MICRO-SCOPE matters

Chris Robson
Editor

'We're doing *The Romans* and *Space* this term. Have you got any programs we could use?' This is the sort of question we are often asked at our IT Centre and I'm sure many of you will either have heard or asked similar questions. It goes without saying that there is a place in most topics for word processors, DTP packages, drawing and painting programs, databases, spreadsheets or control programs, and 'utility' programs such as *Touch Explorer Plus* and crossword puzzle generators for which relevant files can be prepared. However, there are also many good 'topic-specific' programs, ranging from *Teddy Bear's Picnic* to *Time Traveller*, *Vikings* to *Vehicles*, *India* to *Into the Unknown*. Our new feature, **Take A Topic**, will start in *MICRO-SCOPE 44*; in each issue, we shall feature two or three popular topics and list programs for Acorn, Apple and PCs, but in order to make these lists useful to everyone, we need your help. If you've used a program to support a particular topic, or found a useful set of files, such as those for *My World*, *Key* or *Picture It*, or discs of clip art, please drop me a line and let me know. It doesn't have to be a lengthy letter – a postcard will do; just list the topic, program or file, publisher's name and micro; I'm especially anxious to hear from PC and Apple users. There will be a FREE copy of *IT Starts Here!* to the first 100 respondents, and just to get you started, here are a few familiar words . . . *Space, Food, Transport, Colour, Weather, Festivals, Ourselves, Ancient Egypt, Tudors and Stuarts, World War II*. I know I appeal for articles or contributions in every issue, but this is a lot easier so please spare a few minutes to send me a card – I'm hoping to be inundated!

In the pipeline

You will have read in the last issue about MAPE's reorganisation and the creation of five working groups. The Publications Group has initiated several projects: *IT Starts Here!*, produced in collaboration with NCET, was originally designed to support student teachers in training, but is also an invaluable resource for any teacher. This is the second in our series of occasional publications (*The Archimedes Clip Art Collection* was the first) and you should find a leaflet offering it at a special member's price of £2.50 with this issue. However, if you're one of the first 100 to respond to my request for topic programs, you'll get a free copy!

The long-awaited revision to the *Concept Keyboard Special* is well in hand and will be sent to all members in the Spring term, 1995. This is not so much a revision as a complete re-write and will look at using overlay keyboards with Acorns, Apples and PCs, as well as offering classroom ideas and extensive resource lists. In the Summer term, you should receive an *Early Years Special*, covering the use of IT with 3–8 year-olds. Other plans are for a *Science Special* in 95/96 and a publication provisionally called *Add IT On!* This will look at IT ideas which involve either adding something on to your computer – modems, control interfaces, cameras, digitisers, electronic keyboards etc. – or non-computer IT devices such as programmable robots and faxes. Do contact me if you would like to contribute to any of these publications, or to let me know of what you would like to see us producing in future years. I look forward to hearing from you, but in the meantime, Happy Christmas!

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10 years on . . .

'*MICRO-SCOPE* is now published by Castlefield (Publishers) Ltd. We are indebted to Margaret Barfield of Heinemann for all her hard work on issues one to twelve. Barbara Faux, of Castlefield Publishers has now taken over Margaret's function and is responsible for the layout of the journal.'

MICRO-SCOPE 13, Autumn 1984

Editor's note: 13 was certainly a lucky number for MAPE and *MICRO-SCOPE*! Barbara continues to give MAPE sterling service, changing the amorphous mass of material I send her for each issue into the polished *MICRO-SCOPE* you receive; thanks too to Mike Faux for all the 'technical' advice on printing (especially the covers) and general handling of all MAPE's printing requirements. Congratulations, Happy 10thAnniversary, and grateful thanks to everyone at Castlefield from MAPE!

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'Let's ask Chris!'

Don't just sit there alone, gazing blankly at your keyboard – if you've got a problem and feel you need some help, write to Chris Robinson

Christopher Robinson
Education Consultant

Another selection of mainly Archimedes problems. I'm sure PC and Apple users have problems too or know of useful shortcuts. Do please write and let us know of them. Thanks to Dave Hollett for assistance with answering these.

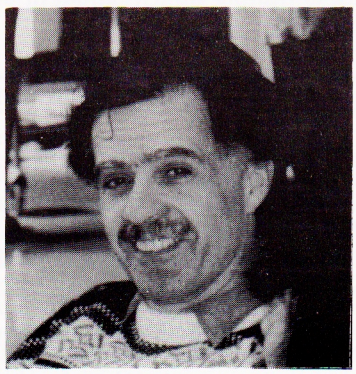
■ I JUST CAN'T HACK IT!

I am willing to let my children use the Archimedes computer at break times but it often isn't working properly for the next lesson.

What do the children do with your computer? It is difficult to know what the problem is unless you are more specific but I know from experience that junior hackers seem to enjoy messing around with whatever they can find. On the Archimedes, one of those things that is easy to change is the 'configuration' that determines how the computer works. It is accessed from the Applications file shown to the right of the icon bar. It is possible to disable this feature so children cannot reconfigure your machine:

Firstly make sure the machine is working as you want it to. Press the F12 function key to get a star prompt beneath the icon bar.

Type ***UNPLUG !CONFIGURE** and press RETURN. Press RETURN again to get back to the desktop.



■ ALL CHANGE

Is there an easy way to change the printer configuration on the Archimedes computer?

With the RISC OS 3 printer drivers, it is possible to get fast draft text or high quality printouts which take a bit longer. Changing from one configuration to another by calling up various menus is a bit convoluted and takes time but there is a quicker way. Holding the SHIFT key, click the left hand, SELECT, mouse button with the pointer over the printer icon. The configuration window instantly appears.

■ PRETTY PINPOINT

***Junior Pinpoint* is a very useful data handling program for collecting, sorting and displaying data. However, although I can choose which text to use when collecting and collating data, I can find no easy way to change the text accompanying graphical displays when using it to report findings.**

To change text globally,

1. Display a graph
2. Double click SELECT on the text icon and change the size and style of text in the dialogue box that appears.
3. Click SELECT on SET. You will note that nothing has happened! Don't worry. Just close the displayed graph's window – don't save it.
4. Go back to the graph drawing window and draw your graph again. It should have the text as you wanted. If you don't like it, change it again.

■ ON CUE AGAIN

Finally, I have had a good response to the cue cards I showed you last time so here are a few more useful ones:

HOW TO COPY FILES
Using a PC machine:

1. Put disc to copy from (the 'source' disc) in the drive.
2. With **C:** displayed, type **COPY A:** *filename* **A:***filename*
3. Follow instructions on screen to change disc when required.

To copy all files from a disc, use **COPY A:*.* A:*.***

To copy from the hard disc, use **COPY C:***directory**file* **A:***file*

DELETING FILES FROM DISC
Using an Archimedes computer:

1. Put disc in drive.
2. Click on disc drive icon to display disc directory.
3. Click middle mouse button on the file to be deleted.
4. Select DELETE from menu by clicking left hand button. (*Depending upon how your machine is configured, you may be asked to confirm this.*)

Using a PC machine:

1. Put disc in drive.
2. With **C:** displayed, type **DEL A:** *filename*

HOW TO COPY FILES
Using an Archimedes computer:

1. Put the disc you wish to copy onto, in the disc drive.
2. Click on the disc drive icon to display its directory.
3. Remove the disc and replace it with the disc to copy from.
4. Click on the disc drive icon to display its directory.
5. Position pointer over the file to be copied, click left hand, 'select', button and hold it while dragging the file icon to the directory to be copied into. Then release the button.
6. Follow messages on screen to change discs as required.

In *MICRO-SCOPE 41*, the Publications Group asked for details of useful publications. Response to this appeal was . . . er . . . limited! However, members may like to contact Beryl Slade, a former advisory teacher with Staffordshire, who sent me details of a range of support materials and disc files for Nimbus users of programs such as Logo, *Gallery* and *PaintSpa*. Other materials are also available from SECC.

Beryl Slade, Brackenwood, Cheadle Road, Oakamoor, Stoke-on-Trent ST10 3AN; Tel: 0538 702004

SECC (Staffordshire Educational Computing Centre), Unity House, Hanley, Stoke-on-Trent, Staffs ST1 4QP; Tel: 0782 289833

I would be pleased to hear from any other LEA/IT Centres about their publications.

Laptop computers in the early years

Chris Taylor
Primary Studies Coordinator, University of Exeter, School of Education

Thanks to the staff and pupils of Ladysmith First School, Exeter, Stoke Hill First School, Exeter, and Dartington Primary School, South Devon for their help with this project.

In 1993, the School of Education was granted 38 Amstrad NC100 laptop computers and peripherals as a part of NCET's pilot scheme. The majority of these were placed in two local first schools with classes ranging from Year 1 to Year 3. The aim was to see if these machines could enhance children's learning, with particular regard to literacy, and also to see if a cluster of such machines (six per class) was a feasible number to use. We retained six machines at the university for students to learn to use before going into the schools to work with the pupils. I also used these machines to take into another primary school to work with a Year 5 class.

The NC100 is a simple machine, similar to the Tandy WP2/3, with built-in wordprocessing software, calculator, personal organiser programs and the BBC Basic. The software works from a relatively simple menu structure, which offers most facilities of a text based word processor. (You can't use fancy fonts.) It uses four AA batteries and with a rechargeable conversion these lasted for about five hours in the classroom. There is a simple LCD screen which can display seven lines of text, and it can hold about 2500 words in memory. It also has a built-in spellchecker, and work can be sent to a desktop computer relatively easily given the appropriate transfer kit. The NC100 can still be found for sale at around £100, but has now been replaced by the NC200, which has a larger, backlit screen, a built-in spreadsheet and games and an IBM-compatible disc drive.

We found that the machines were easy for the children to use, except for some of one Year 1 class who at the beginning of the year were not at a stage where they could read the words on the screen unaided. The machines aided the children's writing particularly in terms of motivating poor writers to write. In such cases, the children produced more work and were able easily to go back to their work to edit it. With some of the more able writers, the children preferred handwriting, due to their lack of typing speed. Later in the year, when students from the university were able to go and help the children using the computers, the children in the Year 1 class were able to use them as real writing tools. Classroom management was not a real problem, indeed, in use the computers were almost invisible. One major issue was recharging, and to enable this the machines were left plugged into a 4-way supply overnight. Printing was also a problem, in that the children found it difficult to plug a printer cable into the socket on the back of the computer, so adult assistance was needed.

Although the children were shown how to use the spellchecker, this was not a facility they used much. The reason for this is that the intelligence behind the spellchecker cannot recognise children's typical spelling errors. This is not a fault unique to the Amstrad, it seems general that most spellcheckers are written to recognise adult mis-spelt words. The calculator was a very popular facility, working in very large digits. The alarm was also quickly discovered and used to announce the start of playtimes! The general technique adopted to enable the editing of work was for it to be printed out first, corrected by the teacher on paper, and then corrected by the child. Alternatively, the laptops were used for a first draft, which was then transferred to a desktop machine (an A4000 or 5000) to be edited and printed through *PenDown*. This enabled children to gain a great deal more keyboard experience than they would have gained when having to take turns to use the desktop computer. In terms of having IT capability, the children gained greatly in confidence, awareness of what the machines can do and ability to use them.

Keyboard skills is one area where results were inconclusive, although the children definitely gained both speed and confidence. Slower writers could type as fast as they could write. With the faster writers, their lack of keyboard speed proved a disincentive for some and they preferred handwriting, although the act of redrafting was much speeded up; indeed, the teachers involved thought that the use of the machines would encourage them to teach redrafting much earlier. The children commented on how the act of typing did not hurt their hands like it did when they wrote with a pencil.

The cluster of six machines in a class seemed to work well; there was only one case of a child's

work being deliberately interfered with by another. Memory expansion cards were provided, but only one per machine. If there had been one per child, then work would have been totally secure. It would also have enabled one machine to be permanently connected to the printer to prevent the problem of plugging in the printer lead.

In the Year 5 class, the children used the laptops to create the following book reviews. They were then able to correct their work before printing it for display. I was particularly interested in how the machines would be used by the special needs pupils in the class. In all cases apart from one, the children found them easy to use and were happy to go back and edit their work. The exception was one child who was brain damaged (Peter*), who took so long about his writing, that it was thought unreasonable to expect him to correct it. John is a very reluctant writer, but produced and corrected a significant piece of work, showing a very high motivation and concentration. Alan produced a very repetitive piece, but did it all unaided, including correcting spellings. He is a case where he is ready to be taught about re-drafting. The piece of work by Clare is included as a contrast. She does not have special needs and is an able writer. She produced this piece of work unaided.

This project has shown that it is not necessary to have a desktop computer to use IT as an effective learning aid which can be used in many areas of the National Curriculum. The laptop computer is cheap, portable and relatively reliable. It does not require lots of discs, leads or trolleys and class-room management is minimal. It is also possible to buy a set of ten for the price of one desktop computer. They can be very simple to use, de-manding much less in the way of INSET than the orthodox computer package.

**Editor's note:* The names of the children have been changed.

eihfants

i like the elephant book beks i can red it wif my mummy i like the picth its got my best picture in my book and it tells you all about elephants evn about their bonxs

by peter

the jungle book by rudyard kipling

once upon a tiem there was a buoy called mowgli and i like it because i liked baloo becaause he was funy because he ate ants and in the middle of the stery baloo tied to killed shere khean but shere khean then baloo was on the ground then mowgli th at he was dead then mowgli then boloo walk up then mowgli looked ba then boloo was a ive then they went past the man village then mowgli went in the man village then boloo and bagheera sng the way the end

by john

this book is classified 7 and ov the end .

I like it when the cow go after the pig.
I like it when the boy said stop.
I like it when they smack through the wool.
I like it when the boy is sitting on the boat.
I like it when the boy looks around the tree.
I like it when the boy climbs over the fence.
I like it when the cat goes under the boy.
I like it when the cat stares at the boy.
I like it when the frog sticks his tougue out.
I like it when the boy looked cros.
I like it when the boy runs after the pig.
I like it when the cow skids because of the fox.
I like it when the boy nearly hiss the fox.
I like it when the boy hugs the fox because of the farmer
I like it when the animals rush through the towa.
I like it when the boy stops the farmer.

By Alan

Stig of The Dump

Stig of the dump is an exciting adventure about a boy who goes on holidays to visit his gran and very near him or her is a dump and Barney always goes down there when he visits his nan . One day he went down there and he found that there was a man living there and he only wore rabbit skins on the bottom part of his body and he didnt wear anything on his top half of his body. Well Stig was a great maker of flint things like bow and arrows. The amazing thing about him was that when ever somone chucked somthing over the edge he used it for his home which was hollowed out of the earth. This book is well recomended for 10 year olds and the rating is 10_10.

by Clare

FOCUS ON MULTIMEDIA

Using sound and pictures

Paul Nuttall
Deputy Director, SEMERC

The last few years have seen a revolution in the use of sound and graphics. In the days of the old BBC computer, not only were the pictures very crude, using only limited colours, but very few programs could use pictures and then they were usually built into the program. Basic word processors like *Prompt*, *Folio* and *Stylus* could not use pictures, nor did we expect them to; we knew you needed complex desktop publishing packages to use pictures and text. Sound was also very limited with only simple tunes and very limited speech in programs like *Stylus*, while better quality speech required expensive, external speech synthesizers.

The coming of the newer 16- and 32-bit computers like the Apple Mac, RM Nimbus 486 and the Acorn Archimedes A Series computers changed our approach to using pictures and sound. Suddenly programs like *Phases*, *PenDown Plus* and *ClarisWorks* arrived, programs at a reasonable cost allowing basic word processing and pictures placed with the text, so that even the youngest pupils could produce illustrated stories.

Multimedia programs such as *HyperCard*, *Genesis*, *Optima* and *Toolbox* not only allowed high quality pictures to be displayed, but also allowed sounds to be added. Suddenly the idea of creating your own talking books became a reality.

However, along with these programs came a demand for pictures and sounds. Increasingly common questions I am asked are: How do I get hold of pictures? What pictures can I use with a certain program? What's the difference between a drawn picture and a painted picture? How do I record sounds and voices?

Pictures

Sources of pictures can be:
Picture discs – sometimes referred to as clip art – these are usually discs of pictures on a theme. Care has to be taken in choosing these discs as many are simply copies of American clip art containing lots of pictures with no common style, which are of very little use in school except for posters. Good quality discs will contain a number of high quality pictures on the same theme and share a common style. The very best pictures discs carry the same style from disc to disc allowing pictures from different discs to be used together. Good quality discs can be purchased for less than £15.

Your own pictures can be produced using either painting or drawing programs. Using painting programs, children/students can illustrate their own work. Many suitable programs exist such as *KidPix* on the Macintosh, PC and Archimedes, or *FirstPaint*, *Scribble* and *Flare* on the Archimedes. In some cases, art packages come with the computer such as *!Paint* and *!Draw* on the Archimedes and *Paint* for PCs which has been bundled with Windows.

Digitised pictures are produced using a digitising board connected to the computer. A video course (either from a video recorder, video camera or a still video camera) can be plugged into the digitising board. Using software, the video source can be viewed on the screen and then saved onto disc for use in programs. Video digitisers can be standard or high resolution. The high resolution boards can use high band video sources (such as VHS or Hi-8) and can produce much clearer pictures. However, remember that the higher the quality of the picture the more memory is required, so your computer memory can soon be used up, and anyway, many programs will not accept large pictures. Black and white digitisers cost from £50 upwards and good quality colour digitisers cost from £120 upwards. They also require a video source.

Scanned pictures – a scanner is a device that

allows an ordinary picture to be copied onto disc for use in programs. The picture is simply placed on the scanner, or in the case of the hand scanner, the scanner is moved over the picture. The quality is much higher than with digitisers, but you must have the picture first. Hand scanners cost £150 upwards for a black and white one and up to £1000 for an A4 size full colour one.

Each source of pictures has its own advantages. Picture discs are cheap and easy to use. Painted pictures have an educational value, as children can produce their own drawings to illustrate their work. Both digitisers and scanners are expensive and can be difficult to use well, but they do offer an endless supply of pictures assuming you have good source material.

Just because you can get hold of pictures does not necessarily mean that you can use them. Not all new programs can use pictures and there are those that can only allow the use of certain types (formats) of pictures. Each computer has its own type of picture format that is in common use. On the Apple Macintosh, you will find *Pict* and *Tiff* are the most common formats and pictures need to be saved in these formats. On the Acorn Archimedes and A Series, *!Paint* and *!Draw* are the most common format. The PC uses files like BMTP, TIFF or WMF. So the rule is to find out which formats of file your programs can use and make sure you can obtain pictures in the same format.

Paintings and drawings

On computers, pictures tend to be divided into either paintings or drawings. Paintings (or sprites as they are sometimes called), are pictures made up of a whole series of coloured dots. The dots are very small and allow a wide range of colours to be used to produce very realistic pictures. Some scanned pictures can look just like photographs. Scanners and digitisers produce *!Paint* format files and are idea for real pictures or pictures with subtle tones and colours. Painting programs are also easy to use at an early age. In use, painted pictures are quick to move around the screen in programs, but take a large amount of memory. If you try to enlarge paintings, you simply make the dots larger; so, as the size of paintings is increased, the coarser they become.

Drawings are an alternative type of picture. Drawings are produced by programs that give you basic drawing tools, curved lines, straight lines, circles and boxes. You can decide on the thickness and colour of lines and filled shapes, and when the drawing is saved, it is as a set of mathematical data that describes the objects and their relative position to each other. Drawings are, by their nature, difficult to produce and limited in the use of colours and shading. However, drawings scale perfectly and can be used in a wide variety of sizes; they also produce very clean pictures for illustrating work, particularly when printed. The drawings can be modified to create new images and then merged together. Simple drawings are also very small in size. The disadvantages of drawings are that they are difficult to move on the screen if the image is complex and they will need to be redrawn by the computer each time they are moved. Highly detailed drawings with shading take up large amounts of memory, and in many cases, take up more space than a similar painting.

The various sources and types of pictures may seem complex, but they are easily obtainable and offer tremendous potential in the classroom, especially when linked with the newer high resolution B/W and colour printers. At last, classroom newspapers and booklets can start to look like the real thing, and indeed, many schools and colleges can now publish to a higher standard than many printers.

Sound

Many programs use sound, but how do we get those sounds?

Sound discs provide one source. Sound discs vary in quality; CD-ROMs offer 600 Mb of sound effects, but the ones that I have tried consisted of a limited random collection of sounds in a multitude of formats and all were too large to be of any use within a program. Other discs, such as SEMERC's *Just Sounds* discs, consist of a number of sound effects on one topic, all sized to be useable with current multimedia programs and placed on an ordinary disc.

Sampling sound

Many devices exist to allow you to create your own sounds. Modern Apple computers come with a small microphone and software to allow you to record sounds to disc. With Acorn computers, you can buy sound cards or devices such as Oak recorders that plug into the printer port and allow you to record your own sounds. When using PCs, you will often find that you have a sound card fitted and these sound cards not only have sound synthesis built in together with an amplifier, but also allow sounds to be sampled. You can plug microphones or tape recorders into the sound card and using the sound card software, sample sounds of your own voice.

When sampling sounds you will need to practise

to find out the best speed and quality of sample. Sound samples take up large amounts of memory and often you will find you need to compromise between quality and the size of the sample. When you come to have your sample you will need to decide on the correct file type.

Using a combination of sounds and graphics along with sampled voices, teachers can easily start to construct speaking pages and books using powerful new multimedia programs available from SEMERC.

This article has been reprinted with permission from SEMERC's newsletter, Special Needs-IT.

Product details

Optima (Acorn) £20 + VAT.
Oak recorder (Acorn) £39 + VAT.
Just Pictures (Acorn, Mac, PC) £12 per disc + VAT
Just Sounds (Acorn, Mac, PC) £12 per disc + VAT
SEMERC Treasure Chest CD-ROM (Acorn, PC) £69 + VAT

More CD-ROM reviews

CD-ROM in Fairyland!

In *MICRO-SCOPE 42*, we published a selection of reviews from NCET's *Guidance Document for Schools – CD-ROM Titles Review* – the publication which has been sent to all schools participating in the DfE's CD-ROM Primary Pilot Project. Those reviews were of titles which were 'bundled' with the equipment which schools received. We are grateful to NCET for permission to reprint more of their reviews and this time, have selected three discs (one for each platform) not included in the bundle, all with a fairytale theme and aimed at younger primary pupils.

Chris Robson
Editor

Title: ***Adventures in Fairyland***
Country of origin: UK
Date of publication: 1993
Curriculum area: English
Phase: KS1
Version: PC
Price: £35.96
Supplier: Optech Ltd

Evaluators' review

This comprises a series of fairytales which are laid out sequentially. Each is told through animated pictures. It offers word by word reading, object identification, animations, pictures, differentiated puzzles and a painting facility. Overall, an interesting variety of ways to access the stories.

This CD-ROM provides an excellent introduction to listening and reading. It fosters initial IT skills, such as printing and mouse control. There is a great deal of interaction.

This is a reading CD-ROM with a range suitable for extending readers. There are opportunities for mixed-ability group work.

The interface is based upon a sequential format which does not seem to allow direct access to a particular story, or to return to a page left earlier.

Overall, a good CD-ROM for established infant readers. The interest level is high and the whole is motivating.

Title: ***Cinderella***
Country of origin: USA
Date of publication: 1993
Curriculum areas: English; Modern Languages
Phase: KS1
Version: Apple
Price: £15.20
Supplier: Macademic; Optech Ltd

Evaluators' review

This is a title in the 'Kids Can Read' series (also including *Scary Poems* and the *Paperbag Princess*) with their excellent 'read along' features.

It would offer good support for listening skills and early reading skills in English (and Spanish). Voices have an American accent.

The reading level is quite sophisticated and more appropriate to the upper end of KS1.

There is no recording facility, but the interface, navigation and customising options are first rate. The sound and the still graphics are also very good.

No supporting materials were submitted, apart from one page of suggestions in the accompanying booklet.

Overall, this is a useful, motivating reading resource.

Title: ***Goldilocks***
Country of origin: UK
Date of publication: 1994
Curriculum area: English
Phase: KS1
Version: Acorn
Price: £39.95
Supplier: Cumana Limited

Evaluators' review

This package consists of an audio CD and two floppy discs containing Genesis files with the text and graphics. *Goldilocks* was produced primarily to help introduce young children to IT skills, particularly the use of the mouse and some keyboard activities in the form of writing. Clicking on written text in red on each page will give verbal help. There are about 20 pages to the story.

Within the story there are various activities which are appropriate to a range of abilities in KS1. Although text is displayed on the screen, verbal help can be accessed by clicking on it. To be able to add writing to the story children would need reading skills.

It is easy to move from one page to the next and to carry out the activities. The graphics are fairly good and the verbal help very good. There is not a lot of animation but the story is very interactive. All the screens can be saved and printed.

There are some very good Concept keyboard overlays and activity sheets for follow-up work, enabling children to rewrite the story, draw, count, be introduced to Logo, sequencing and doll dressing. The accompanying disc also suggests areas of activities and support.With its accompanying activity sheets and overlays, designed by teachers, *Goldilocks* would be a good introduction to IT skills.

PD software for Christmas

A Christmas traditions multimedia package for Acorn machines is available from:

ADPL (PD), 39 Knighton Park Road, Sydenham, London SE26 5RN
Datafile PD, 71 Anson Road, Locking, Weston super Mare, Avon BS24 7DQ
ArchAngel PS, PO Box 41, Exeter, Devon EX4 3EN; Tel: 0392 422759
Archive Genesis Swap Shop, Paul Hooper, 22 Rochford Road, Martham, Great Yarmouth NR29 4RL
iTA, 37 Gainsborough Drive, Beltinge, Herne Bay CT6 6QJ

It needs a RISC OS machine with at least 2Mb memory and a hard disc. It is provided on a 1.6 Mb disc and is therefore unsuitable for the A3000, but will run on the A3020.

looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking

10 years on . . .

'I'm quite sure that learning to use a micro requires less time and intelligence than mastering the process of video recording. If you mess up a recording of *Coronation Street* you've had it whereas with a computer you can always start again.'

'One occasionally meets the "lucky" person whose school is able to boast that it has several hundred pounds' worth of software. It is also possible to come across the individual who has spent a quarter of the software allocation and has no idea what to do with the rest of the money. It is highly likely that the latter person has considerably more idea about education than the first. . . .'

'Many children have a very confused and anthropomorphic view of what a computer is. One four year old for example, when asked, "how does a computer know what to do?" responded, "Cause it's got batteries in it" and when probed further with, "How does that help?" replied "Cause the batteries have seen other batteries doing it!"'

***MICRO-SCOPE 13*, Autumn 1984**

looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking

IT AND THE HUMANITIES

Keyboard clues: Primary History and the Concept Keyboard

Dr Meg Gomersall
Bath College of Higher Education

The concept keyboard has been described as an extra pair of hands in the classroom, with many a hard-pressed teacher recognising its usefulness as a technological 'wordbank' for information and spellings. It is only now, however, that we are beginning fully to recognise the many ways in which the concept keyboard can be used within curriculum areas such as History. Using content-free software such as *Touch Explorer Plus*, we can support children's 'history detective' work by using the concept keyboard to record and communicate findings.

My introduction to the concept keyboard came when I worked with BEd students in a Y6 class on a mini-investigation of 'Bath Then and Now'. With some trepidation caused by my inexperience of IT I decided that an investigation of change and continuity over time in Bath's major shopping street could be recorded on the concept keyboard, along the lines suggested by the 'King William Street' software included with TEP. As it turned out, my trepidation was unfounded. The more we did, the more we recognised we could do and the more the value of this approach became evident.

We began by taking a 'detective walk' along Milsom Street, mapping the buildings and their use and looking for further clues to tell us about past use. This was followed by investigation of other source materials (documents, photographs etc) to give us information about the street at six different historical periods between 1851 and 1990. This was recorded on six overlays, with information about the sources of evidence, questions about the information given and the value of the sources used, and with references to additional sources of evidence to extend investigations. More than this, the exercise generated a great deal of discussion that really enabled the children to work like historians, in putting together information drawn from different historical sources (AT3, levels 1–4). And here the limited word capacity of the program became an advantage, with the children having to make hard decisions about what to record: how did they know the information was true? why did accounts vary? and so on (AT2, interpretations of history, levels 2–5). Comparison of evidence from different periods was made easy by switching through the keyboard levels, with the children's investigation of change over time, and the causes and consequences of change, developing the skills and understandings of AT1, knowledge and understanding of history.

This activity pre-dated National Curriculum History, but it certainly developed my awareness of how the concept keyboard can enhance the teaching and learning of history, in ways that are directly compatible with the Attainment Targets now established for History.

One of the most useful applications I have found has been the use of the concept keyboard for 'picture reading'. Our Milsom Street survey was based on readily-accessible evidence for the nineteenth and twentieth centuries, but 'child-friendly' evidence for more distant historical periods is not so easy to find. Reproductions of contemporary pictures and portraits, however, are cheap and easy to obtain, and, when used in conjunction with the concept keyboard, can be used to help children ask and answer questions about the past and to interpret evidence.

For example, my colleague Mari Booker worked with Y1 and Y2 children and their teacher to develop overlays on the topic of 'the Romans'. A picture of a Roman soldier was enlarged to A3 and mounted on thin card to make an overlay. Using *Stylus*, (to give audio prompts for those with limited reading), she put in simple information about the soldier's clothing and equipment. As the

children touched the squares on the overlay picture the corresponding information came up on the screen, to tell the children about the names of items of equipment or to give information about their use. Question squares were used to promote discussion and extend the children's thinking: 'What do you think the —— was used for? What material do you think it was made from? Why do you think the soldier needed this equipment?' The children then recorded their ideas, to give a printed record of their discussion. This initial activity was extended following a visit to the Roman Baths, with a map of the baths made into an overlay to record what the children had seen and learned. The children also chose their own pictures to research and, with the teacher's help, were able to make their own overlays to share their research findings with the class.

Following the suggestions give by Gittings (1991), Harnett (1991) and Morris (1989), my own work with Key Stage 2 pupils has focused more on the interpretation of contemporary pictures and portraits. These have their limitations; the poorer members of the community were unlikely to have their portraits painted, and paintings of historical events can misrepresent the past. Yet, handled properly, the latter limitation can be a means of helping children to get to grips with the nature of historical evidence and the skills of critical interpretation. Thus the questions posed on the overlay can also include those which ask children critically to consider the evidence; how do they know it is true? how could they find out more? These questions can be specific and related to just one portrait or picture, or can be general. Figure 1, for example, shows the first level of an overlay designed to guide children's interpretation of a range of sixteenth-and seventeenth-century portraits.

These questions have been developed with children, with some based on those that they have asked about contemporary portraits. Use of the concept keyboard overlay was integrated with other activities, within a half-term's project on 'Tudor and Stuart Times', to give progression in children's skills of interpretation:

– Painting portraits of each other, with the inclusion of symbols to tell something about the

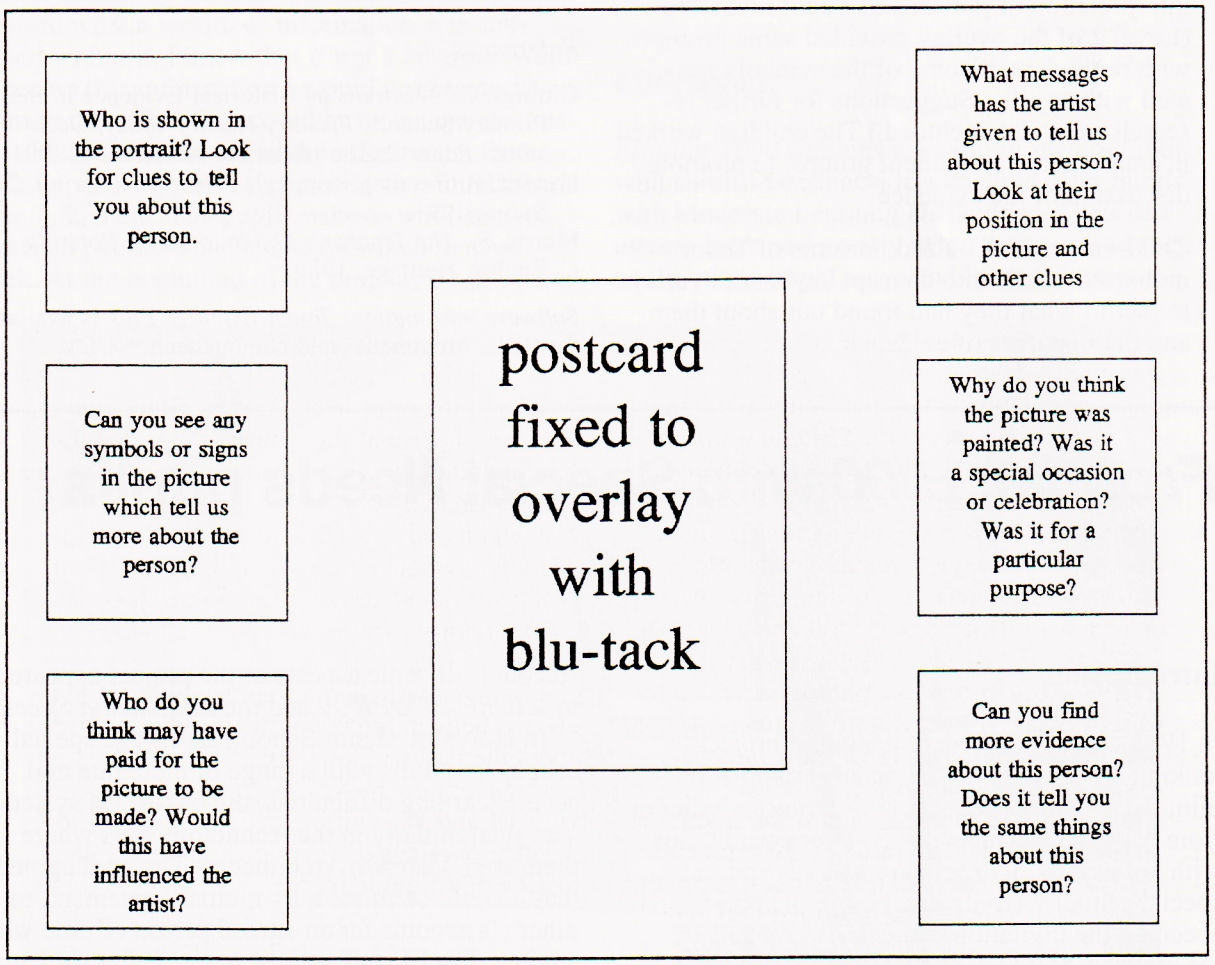


Fig.1.

person (characteristics, interests, special things about them)

- Discussion of the portraits. What clues are there to tell us who this is? What was the artist trying to tell us? Does the portrait give a true picture of the person? What has been left out? etc.
- Discussion of the Ditchingly portrait of Elizabeth I, preceded by the children writing down the questions and comments they wanted to make.

  For example:
  "I think the artist wanted to make her look very important, so he painted her in her best clothes".
  "Is the rose on her collar to show she was a Tudor person?"
  "Why is the sky sunny and black at the same time?"
- Concept keyboard overlay, used with the Ditchingly portrait to record children's questions and the results of discussion, including teacher input.
- Concept keyboard overlay as Figure 1, to guide interpretation of portraits of Tudor monarchs. (Level 2 of the overlay provided some prompts, with reminders of some of the symbols associated with royalty. Suggestions for further research were also included.) The children worked in small mixed attainment groups, to promote discussion of the evidence.
- Children's own A3-sized portraits of Tudor monarchs, made into concept keyboard overlays to record what they had found out about them and their sources of evidence.

We also used the concept keyboard to record the furnishing of a sixteenth-century Yeoman's home, using a plan of a local house as our overlay and evidence from a contemporary inventory. We also explored the likely viewpoints of spectators and participants depicted in a picture of Elizabeth in procession, to discuss whether everyone thought of her as 'Good Queen Bess'.

To sum up, the concept keyboard provides us with a multi-layered technological worksheet that is flexible, adaptable, quick and easy to use and offers endless possibilities for use in history – and across the curriculum. The overlays can provide information and explanations, can be used to ask questions needing factual answers or more open-ended hypothesising; they can be based on primary or secondary pictures, diagrams, maps or documents, with questions about the strengths and weaknesses of the evidence itself. It provides a venue for the discussion that extends interpretation, and can prompt further investigation by pointing children towards complementary sources of information. The possibilities are endless, and the choice is yours!

References

Gittings, C., 'Portraits as Historical Evidence in the Primary School', *Primary History Today, Occasional Paper 2*, The Historical Association, 1991.
Harnett, P. 'Reading Pictures', *Primary Historian*, 2, Spring 1991.
Morris, S., *The Teacher's Guide to Using Portraits.* English Heritage, 1989.

Software information: Touch Explorer Plus is available for BBC, Archimedes and Nimbus from NCET.

Frontier 2000 with Special Needs pupils

Introduction

In 1993, following a successful pilot project looking at CD-ROM in secondary schools, I initiated a small primary school project which ran from March–December 1993. After consultation with colleagues, five primary schools and one special school were invited to join the project. All accepted the invitation enthusiastically and received an A5000, CD-ROM drive, copies of *Frontier 2000* and *Creepy Crawlies* and a brief introduction to both the hardware and software.

Accounts of some aspects of the project appeared in *MICRO-SCOPE 39* and the *Multimedia Special.*

In Holyport Manor School, an all-age special school for pupils with a range of moderate and severe learning difficulties, the CD-ROM system was sited initially in the technology area where there were also two Archimedes. The staff agreed that it could be moved, by mutual agreement, to other classrooms for an agreed period of time when any member of staff wanted to use either package as part of a module of work. This strategy worked very successfully when Marianne Jewell's Y10

class used *Frontier 2000* as part of their work on the Romans.

Chris Robson
Adviser/Inspector for IT, Berkshire LEA

Frontier 2000

Marianne Jewell
Holyport Manor School

Sue introduced the package to me. I vaguely followed what she was demonstrating (so many new skills to a teacher in her final year of teaching who has realised that her memory is failing rapidly!), but found that I forgot from one session to the next what I had been taught. I decided therefore, that if I were to be one step ahead of the class, I had to take the computer home during the holidays.

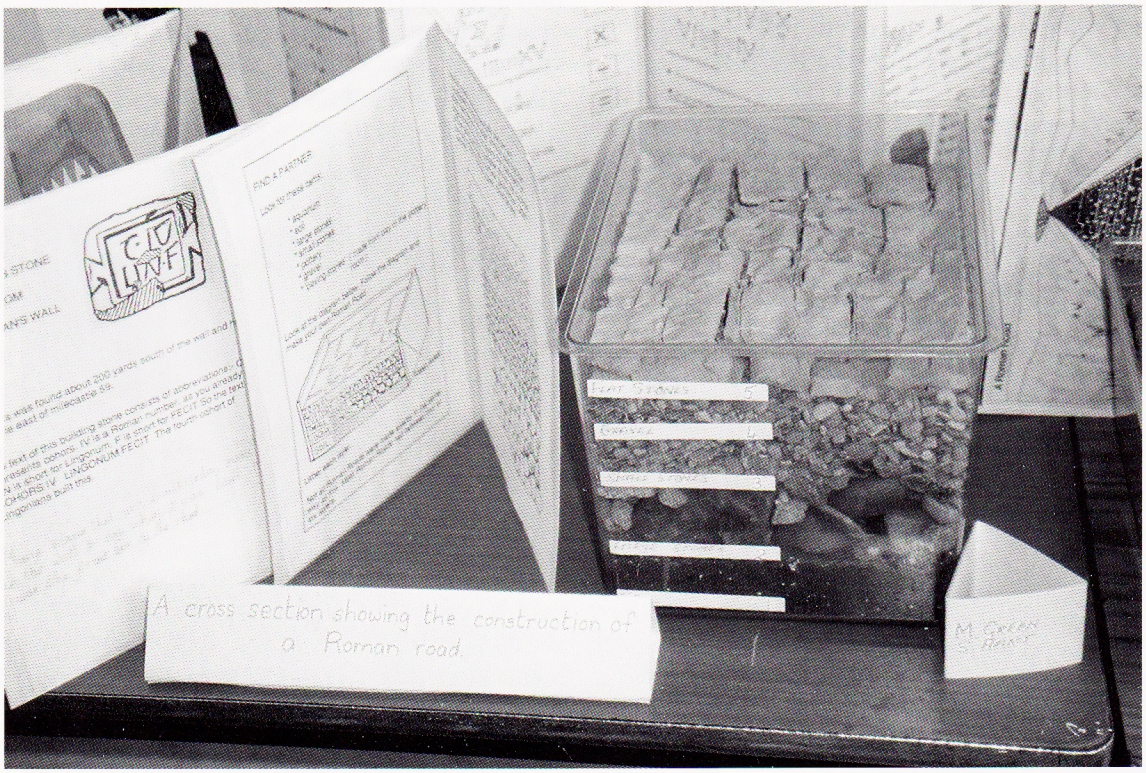
Our topic was Romans, so we used two trails: Hadrian's Wall and Roman military, for an hour and a quarter per week, over six weeks (see Fig. 1). Whilst becoming familiar with the package I realised what a wealth of information was contained within it. I knew that if my Y10 group were to access this information I would need to assist them in order that they could be as independent as possible. I therefore saved the information from each Expert/Clue onto separate discs – labelled Clue 1, 2, 3 etc. The pupils were to work in twos and each pair also had a disc on which to save work. At the beginning of the project, we discussed what we were going to do; we looked at a very enlarged Options page, sketches of the Experts and their areas of expertise and the telephone.

Pupils were then able to load the CD, select Hadrian's Wall or Roman Military, ask for information from the Experts and use the telephone in order to answer the clue. I knew beforehand that asking them to retain all the information given would be expecting too much of them but the discs mentioned previously helped greatly. I decided that I also needed some form of 'crib-sheets' if I were to check on their work so I printed all the clues/answers and placed them in a ring binder. As the printer was not working, they saved each piece of work on their work disc, then loaded it into either *PenDown* or *Junior Impression* and printed it on another machine. Although this could have been regarded as an inconvenience, it was, in fact, very successful in helping them to improve their general IT skills!

Later, I was able to broaden the topic so that it included extracting information from books (using the Index), drawing, sketches, colouring, model making and using another disc 'Romans'. This gave them further opportunity to see, and gain information about the topic.

Conclusion

Frontier 2000 contains a wealth of material, but with careful assistance, has much to offer pupils with Moderate Learning Difficulties. Their self esteem increased greatly when they realised they could 'photograph', save and load, reduce and



Romans in Britain

Junior Leavers

The tasks in each assignment may be done in any order.

You may work by yourself or with 1 or 2 other Junior Leavers.

You will be expected to use the TRAILS on *Frontier 2000;* Word Processing Packages such as *Phases, PenDown* and *Junior Impression*; Roman Pictures Disc.

There will be 1 work disc between 2 Junior Leavers. You may need to save work in order to print it out on another computer or because it is the end of a lesson.

As well as using the computer you will be expected to use information books, draw, colour and make models.

At the end of the half-term all work in the Assignments must be completed.

You will also be expected to find information from books, pictures and leaflets in the classroom about:

– the building of Roman roads
– the Roman soldier
– Roman weapons
– Roman forts
– Roman numbers, months, gods
– Roman legacy ie laws, food, heating, baths.

Fig. 1. *Task Sheet for Frontier 2000*

enlarge their work. Many consider they are 'not very good readers' but with the assistance of the spoken word and their memory they could remember the clues and help one another. They all wanted to use the phone and this was a great motivation to read/listen to the clues in order to arrive at the correct answer!

Even when they had run out of time and the answer was given to them by the Professor they did not feel that they had failed. Their confidence was such that when we had two advisers and an inspector in to see us, one girl told the inspector that she was 'doing' it wrongly (brave girl!); another pupil was reading a clue to one of the advisers and insisted on reading the Latin inscription as well. Their work was displayed in the classroom and in the school hall and because of comments from staff and visitors their self esteem was further enhanced.

Generating a historical enquiry

Phil Church
Newman College

The opportunity given to each school to design its own Local History Study Unit (LHSU)[1] offers teachers the chance to answer the curriculum overload that threatens to undermine good primary practice. Each NC Document makes reference to 'Links with other Subjects', and a strand that runs through all Documents is the requirement to develop pupils' understanding of Information Technology. (The cross-curricular definition outlined in this article is the 'focused approach'[2] where History links up with Geography, Drama and Information Technology.)

If you were just to jot down your name, age, occupation, place of birth, status and whether or not you had a disability for a historian to analyse a hundred years later, I don't think you would say that 'your facts' would reflect who you really are. The same must be true when the historian is sifting through the census returns of a bygone era. Through the use of drama, dull historical facts recorded on a computer can be brought back to life in a way that will excite and thrill any participant.

Most, if not all, historical enquiries should be based on primary source material and if primary sources are not available for pupils to use then exciting secondary sources must be used. The main historical stimulus chosen for this local study was the Census returns for 1881 which had been placed on a database called *GRASS*. For pupils to make their historical enquiry they must use the database, which will demand that they access the relevant historical source, be it a map, photograph, school log book or a teacher-created booklet entitled 'information for researcher'.

Becoming a character from the 1881 Census can be an excellent stimulus for pupils to act as time detectives. The character biography (bio) contains all the personal historical facts to be found on the Census plus a creative and dramatic element. Drama appears to work best when there lies within it a moment of tension or crisis. The crisis element given to each character bio has its own moral dilemma to be resolved. (See Fig. 1 for an example of a student-created character bio.)

The moral dilemma should revolve around an issue that children can relate to. The dilemma acts as a stimulus trigger, where the child's imagination is encouraged to empathise with a forgotten character from the past. The moral dilemma requires action by the children to make decisions based on information they must research for themselves.

A typical example could be:–

- One night you, Eliza, are awoken by your nephew's crying and get up to look out of the window. Across the back yard in the moonlight you think you see your best friend James climb in through the window of number 175 Cape Hill. What should you do?

The following questions will encourage pupils to use the database and go into role.

Who lives at 175 Cape Hill?
Where does James live?
What are Eliza's feelings when she sees the 'intruder' – what thoughts might go through her mind?
How could she react? What could she do?
What problems might arise if Eliza raises the alarm?
Could anyone else have seen the figure entering the house?
Go and talk to James and find out what really happened.

These questions and others will allow the children to:

- develop the use of appropriate historical vocabulary
- acquire knowledge through their own actions
- come to terms with their own views and articulate opinions
- experience decision making
- develop social awareness skills

The moral dilemma will challenge both thinking and feelings, encourage empathy and most importantly give children a purpose to discover and communicate.

If the children are unfamiliar with interrogating a database they may need to begin with simple searches. A possible database question might be:

'Apart from James, who else might Eliza be friends with at school?'

Character Biography by *D. Hadley and K. Earl*

James Loon
189 Cape Hill
Age 8
Scholar

Family

Relationship	Name	Age	Occupation
Father	James Loon	44	Milkman
Mother	Eliza Loon	42	Housewife
Brother	William Loon	21	Milkman
Brother	George Loon	18	Unemployed
Sister	Eliza Loon	13	Scholar
Sister	Harriot Loon	10	Scholar
Brother	Walter	06	Scholar

Life

General appearance – James wears oversized raggy hand-me-downs from his older brother because the family are relatively poor. James does not bath very often and is quite skinny due to a poor diet. Even so he is a happy smiley child.

Work – Before school James helps his father and brother on the milkround. This is drawn by horses and for extra money he takes advantage of the situation and sells manure to allotment owners. Sometimes his school work suffers because he works so hard on his errands.

Religious Life – James goes to Sunday School regularly and is very honest, helpful and hard working.

A moral dilemma that faces James

Unfortunately whilst working for his father James dropped his late grandfather's expensive watch outside a customer's house. It is broken but could possibly be mended, what does he do?

Drama Exploration (use Database for Help)

1. How did you feel when you broke the watch – feelings, emotions, reactions?
2. What do you do next, hide or own up straight away?
3. Were there any eye-witnesses? What did they see? Where were they? What were they doing? Will they tell any one?
4. Where can you hide the broken watch? What is your next plan of action?
5. Your sister Harriot keeps staring at you during a Sunday School service about honesty. Does she know anything?
6. What problems might you face? How do you solve this present dilemma? Is anyone else involved?
7. How does the situation resolve itself?

Suggested Database Questions

1. Are the Loons the only milkmen in the area?
2. Who are James Loon's friends in the Cape Triangle (aged 5–15)?
3. When the watch was broken James was outside 195 Cape Hill and he was talking to one of his school friends. Who was it?
4. Who is Benjamin E Halford and where does he live?
5. How could Benjamin be of help to James?
6. James meets Herbert Murdoch at Sunday School. He offers to help James with the broken watch, how?

Fig. 1. *Student-created character bio.*

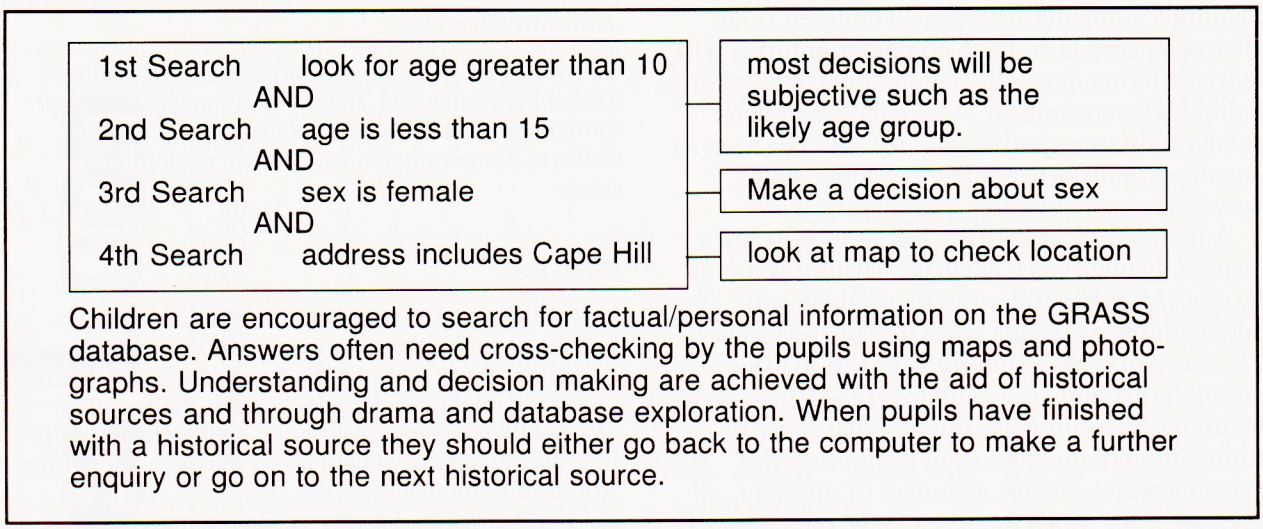


Fig. 2. *Action flow-chart.*

The search starts with finding Eliza's age and then making a decision through discussion about the possible age range of her friends. There are a number of possible solutions. One might be to do a search on the field OCCUPATION for scholars and then display NAMES and AGE. A strategy that needs to be taught is the action of narrowing down the search with the use of 'AND' (see Fig. 2 above for an action flow chart).

Alternatively a class could start off by looking at one character from the Census Returns and then go to the computer to select and create their own character bio. Children could be asked to give reasons for their choice, be it age, occupation or even name. Pupils could also be involved in designing project packs based on the occupation of the character chosen for future pupils to use in a different way.

Asking a question of an inanimate object, such as a computer, can be most disconcerting especially if you don't know how or what to ask it. Database enquiries can frustrate because they demand thinking. Usually when you ask a question you expect the reply to answer your initial enquiry. When the reply demands that yet more questions need to be asked, then children with teacher encouragement will start to see questions as part of the process of enquiry and not just a means to an end. Being part of a process indicates that sometimes the initial answer obtained is not enough. Questions often demand further research and yet more questions.

An ideal classroom management strategy for this type of LHSU would be to get the children to work in groups of three/four on their 'character bio'. Each group would have a special researcher pack focusing on either the occupation of the character or a historical issue, e.g. crime and punishment (see Fig. 3 for student worksheet example), health and hygiene, family life, transport etc. Each group would also have access to a more general information booklet available to all groups, to help them with their research task containing maps, selected copies of the census, photographs, newspaper clippings, cost of food etc.

In Britain during the period 1870s until the early 1900s there were rapid changes both technological and social. In 1870 there were no cars, aeroplanes, radios, films, household telephones, electricity. By 1900 they all existed or were being developed, and they eventually transformed ordinary people's lives. Women were fighting against the restrictions of the Victorian era[3], working people were getting an education, joining trade unions, organising politically and demanding the right to vote. This particular time period offers children a number of opportunities for them to act as historians, be it handling documents, photographs, artefacts or going on an urban trail.

The main assessment task would be for pupils to produce a group folder based on historical issues and events of the period. In the folder pupils must indicate the use of a variety of sources. The key idea to be promoted is to show that sources help them to answer questions about the past. Pupils should also be able to show that over time some things change and other things stay the same. Through group drama discussion pupils will be able to realise that deficiencies in evidence lead to different interpretations of the past.

Although the biggest task is entering the census data onto the database, this could be handled in a number of ways. Pupils could start the database off with the aid of interested parents. Database activities may take time setting up but once the data is safely installed it can be used in a number of different ways and by different year groups.

Sharing a computer between 30 children is not always an easy task. Each computer program will make differing demands on both time and group/individual management. Accessing a computer database for one specific enquiry could be seen as one opportunity where there is a high pupil turnover.

A natural ally to help the historian generate a historical enquiry is a database. History is driven by questions; hopefully pupil questions will outweigh the questions generated by the teacher. The teacher's responsibility is in part to ask a question that will allow children to ask their own focused and specific questions. What often stimulates a more interesting response is the question which creates a number of different avenues from which pupils can take on the role as time detectives. Tackling the Census Returns through the vehicle of drama and IT can recreate the 'human quality' that lies at the heart of 'history'.

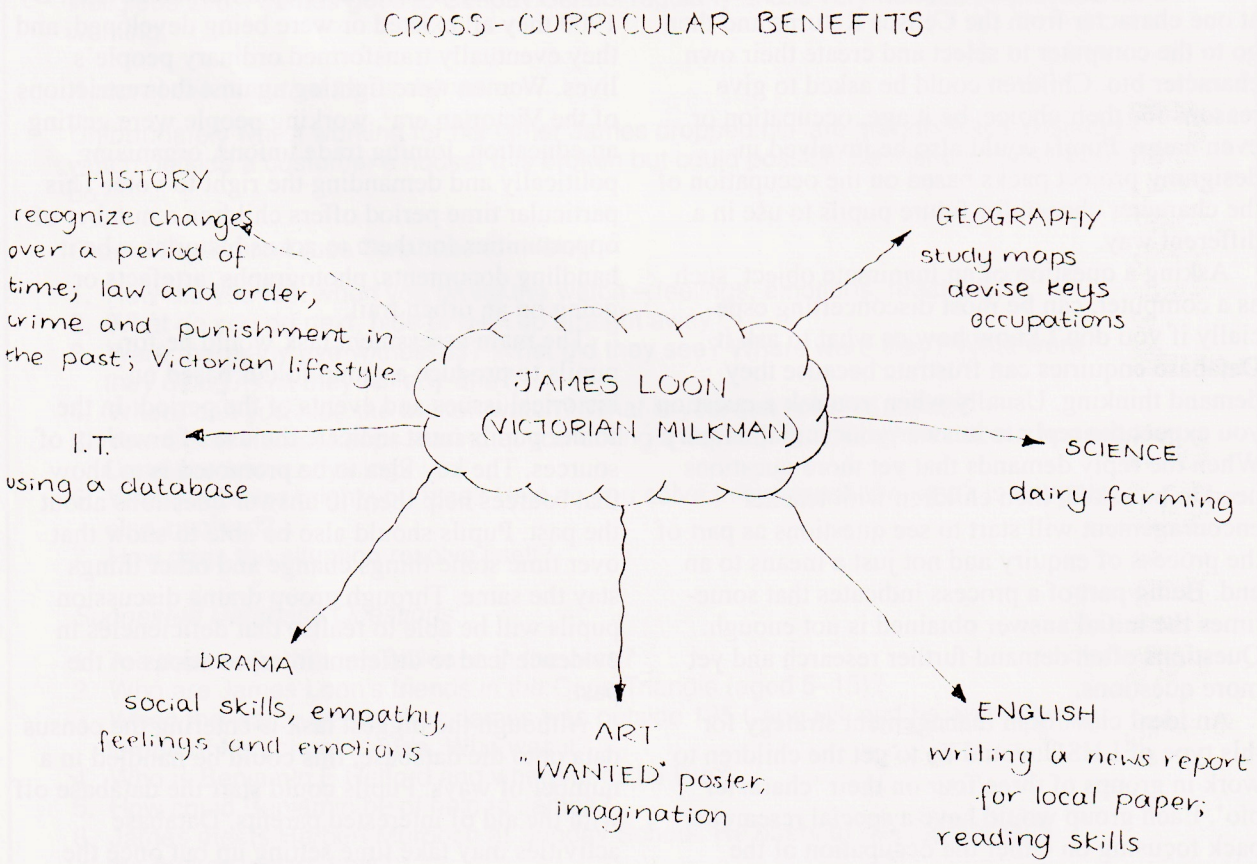
At the time of writing, Phil Church was a Seconded Teacher Fellow on loan to Newman College's History Department from Cape Primary School, Smethwick for a year.

Acknowledgements

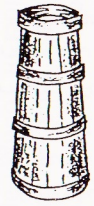
Our thanks go to: Kathleen Earl and Donna Hadley, Rachel McMordie and Tracey McKenna, second year Curriculum Area students at Newman and Westhill Colleges, for permission to use their work in this article.

References

1. It is important to note that not all local history belongs to the 'Victorian era'. Schools in Bath might want to focus on the Romans whilst schools in York might decide to look at the Vikings. The school's geographical location and availability of historical sources should act as the main stimuli for a local history study.
2. Cross-curricular delivery is undergoing critical scrutiny by a number of 'Official' bodies. NCC highlighted in their 'Curriculum Guidance 3' three clear cross-curricular definitions: Dimensions, Skills and Themes. Other definitions related to how subjects can be linked were discussed in the 3 Wise Men report; Specific, Focused and Broad. The criticisms made about the 'broad definition' (9 + 1) and echoed by HMI reports on History and Geography can only be justified if the subject links are not based upon a strong conceptual framework.



James Loon



James Loon
189 Cape Hill
Age 44
Occupation:- Milkman

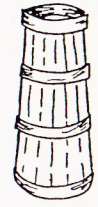
Family:-

WIFE	ELIZAR	42 YRS	No Occupation
SON	WILLIAM	21 YRS	Milkman
SON	GEORGE	18 YRS	No Occupation
DAUGHTER	ELIZA	13 YRS	Scholar
DAUGHTER	HARRIOT	10 YRS	Scholar
SON	JAMES	8 YRS	Scholar
SON	WALTER	6 YRS	Scholar

GENERAL APPEARANCE:- James wears loose, dull trousers and a white overall over his clothes to keep them clean. He also wears a hat as is typical of the day. The family isn't very rich and most of James' wages go on the children, so his own appearance is sometimes sacrificed. James always tries to appear happy to cheer up his customers.

WORK:- James has to get up at 5 am. and walk to the nearby farm to collect his cart and horse. He and his son William load the cart with a huge, heavy wooden churn full of milk, and begin the rounds. They trot to the nearby houses and the people come out with their jugs. James then ladles the milk into their jugs.

James Loon



YOU WILL NEED TO CONSULT THE DATABASE TO ANSWER THESE QUESTIONS:-

① Do the Loons have any rival milkmen in the area?

② Apart from Henry, who else might Eliza be friends with at school?

③ Henry was seen leaving 196 CAPE HILL. List all the inhabitants of this address.

④ Where was Henrys father born?

⑤ What was John Gilberts occupation?

⑥ What was his wifes occupation? Explain.

⑦ Who was born in Bristol?

⑧ How is John Andrews related to Henry King?

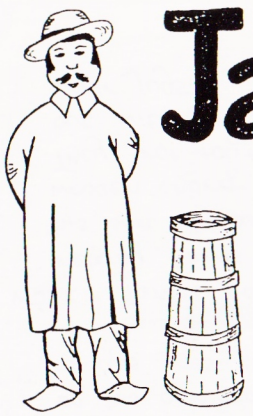
⑨ How many children were there aged under 4 years in the census of 1881? Name two of them.

⑩ How many publicans lived on Cape Hill?

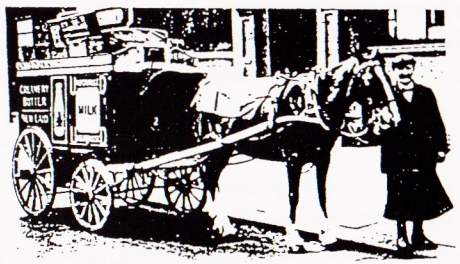
⑪ Who lived at the Globe Inn?

⑫ How many people were born in Harborne?

⑬ Find out if anybody had a disability?



James Loon

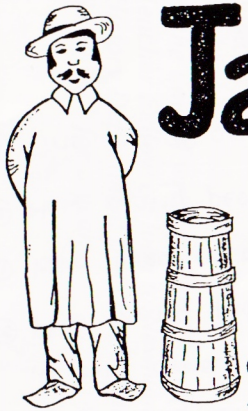


Using the previous sheet, you can now fill in these gaps.

You have to get up at ___ in the morning. It's so early it is still dark. The milk churns are very heavy, so you are lucky to have your son _____ to help you. You have _____ children altogether ranging from ___ to ___ years old. ___ of your children are still at school, including _____ your youngest son. Your sons _____, _____ and _____ will probably follow you into the family line of work and become _____. Your good wife _____ looks after your home and you bring in the money to look after the family. You have a very close family and you all try to look after each other and sort out your problems together.

NOW YOU YOURSELF HAVE A PROBLEM AND DON'T KNOW WHAT TO D.

This morning as you walked to your round alone (William is following you later), you saw Henry King a schoolfriend of your daughter Eliza climbing out of the window of 196 CAPE HILL. It is obvious he shouldn't have been there and he's carrying something large and bulky under his coat. What should you do? Henry has obviously been up to no good, but his dad's just lost his job and money is scarce. What should you do? Look at your resear



James Loon

pack. What will happen to Henry if you tell the 'peelers'?

THINK ABOUT....

① Henrys family. How will they feel? What will they feel about you if you tell the police?

② Eliza, she had a crush on Henry. Will she sympathise with you or him?

③ What about the people at 196 CAPE HILL? How might they be feeling?

④ What would you want someone to do if they had seen your child doing this?

⑤ How would you feel if you knew someone was covering for someone who had committed a crime against you?

⑥ Will more people be harmed by you telling or not telling.

⑦ Write a list of reasons for/against telling the police.

TELL THE POLICE

FOR ✓	AGAINST ✗

⑧ Use all of your above criteria to decide what to do.

DESCRIBE YOUR DECISION, COMPLETE WITH REASONS.

IT and obsolete technology

Chris Taylor
University of Exeter, School of Education

You do not need a brand new, super-powerful expensive computer to do IT successfully with your class! Many teachers have the misconception that new, powerful machines are essential for children to use. In actual fact, it is quite feasible to use older machines effectively. The only essential features that they need are a disc drive, a printer and suitable software. They must also be reliable!

Some local schools have placed their old BBC computers in store in the apparent belief that they are not appropriate to use now that they have purchased A3000 and 5000 machines. Providing it is still reliable, or can be economically repaired, then a BBC computer is a perfectly acceptable system for many applications, and for some purposes, such as control or measurement work, it is superior to others due to its generous provision of interfaces.

In order to use such a system, you need to put together a suitable software toolbox, consisting of a collection of software applications suited to the age and ability of the class. This might typically include such programs as a wordprocessor, a data handling program, Logo, a graphics program, control software, an adventure game or simulation and some curriculum-centred software. Many LEAs have put together such a toolbox using county licences or bulk purchasing arrangements. The only limitation with these LEA packages is that they tend to be general primary packages and not age specific. Such packages are often supplied with a computer. For example, if you buy a PC compatible with *Windows*, then you get *Write* (a simple wordprocessor) *Card File* (a database), *Paintbrush* (a painting package) as well as some games and other applications.

Let us consider typical software toolboxes that could be used with a BBC computer for a reception class, for Y2/3 and Y5/6. All the following software is either freely available or very cheap. If you have a Y1 or Y4 class, then you can select software from either the older or younger age group. Similar programs are also available for the RM 480Z.

Reception
Word Processing – *Stylus* (MAPE), *Prompt/Writer*, *Caption* (NCET)
Graphics – *Mosaic* (MEP Infant Pack)
Handling Information – *Sorting Game* (MEP Infant Pack)
Investigations – *Jumbo, Treasure Hunt* (MEP Infant Pack)
Curriculum-specific programs – *Bricks* (MEP Infant Pack)

Year 2/3
Wordprocessor – *Stylus, Prompt/Writer, Front Page Extra* (MAPE)
Data Handling – *OurFacts, Sorting Game* (MEP Infant Pack)
Graphics – *Cartoon* (Newman Software)
Investigations – *Dart* (The Advisory Unit), *The Magic Telephone, Locks* (MAPE), *Treasure Hunt, Infant Tray* (MEP Infant Pack)

Year 5/6
Word Processing – *PenDown, Wordwise Plus, Interword* or *Edword*
Data Handling – *Grass, Grasshopper* (Newman Software)
Investigations – *Dart* (The Advisory Unit), *Contact* (NCET), *Developing Tray* (MEP English Pack)

If your school does not have a copy of the MEP Infant or English software packs, then you should be able to get them from your local advisory centre (if there is one) or from a local college of Initial Teacher Training, but expect to pay the costs of the discs and copying.

In order to get a reasonably powerful wordprocessor suited for use with Years 5 and 6 I have recommended BBC software that you will have to buy, but the majority of the rest of the software is available very cheaply, often on a county licence. I have recommended some of the relatively early MAPE and Newman Software programs which are perfectly valid as simple simulations or investigations. I still use *Jumbo* as an introduction to IT for the computer terrified in higher education! There probably is a market for such collections to be remarketed with appropriate curriculum support materials – a MAPE Modelling Pack? There is also room for programs such as *Infant Tray* and *Cartoon* to be versioned for

modern computers as they still have powerful curriculum roles – how about MAPE commissioning versions for the PC, Mac and Acorn A series?

Schools may well have access to old machines other than BBCs. The RM 480Z computer had relatively high-quality graphics and a lot of memory, and a reasonable selection of software applications. To make these machines easy to use, the discs can be set up so that they autoboot on pressing 'B'. The Nimbus PC186 is till a relatively powerful machine even if it has only one floppy drive, and a good range of software is available to run from disc. Similarly, a wide range of software is available to run on a basic IBM PC compatible (such as an Amstrad PC1640); Microsoft *Works* is hard to beat as an integrated package, and within the reach of Years 5 and 6. Very cheap shareware programs are also available for PCs, including wordprocessors, data handling programs, simulations and turtle graphics. The Amstrad WPC was not designed for use by children but offers a moderately sophisticated wordprocessor and a simple version of Logo. Other machines worth consideration include Amiga or Atari home computers (although they should be used with monitors rather than old TV screens), and Amstrad NC100 notepads, which have been shown to be suitable to use from Key Stage 1.

All such machines can be picked up very cheaply from local ads or from computer auctions (I recently saw a BBC in the local paper for £45) or sometimes for free (local businesses that are upgrading). Make sure that you are shown it working before purchasing and that it has a systems disc if it needs one (480Z computers, WPCs and IBM compatibles). What you must beware of is confusing staff and pupils by having access to too many different kinds of machines in one school. Other limitations of earlier machines may be poor graphics, and each different piece of software having its own particular user interface, making it difficult to transfer skills from one package to another. Also, you must spend some time learning a new operating system in order to manage it. This need not be difficult; you only need to know how to format and copy discs, copy and delete files and set up discs to autoboot – five separate sets of commands. This need take no longer than learning how to use a mouse-driven, *Windows* system.

So, it may be nice to own a 500 gigabyte Mega Power Risc Unix PC workstation costing £2000, but most of this power is used to control fancy (and often unnecessary) graphics and to prevent badly-written, memory-hungry software from crashing. What is important are the curriculum implications for a piece of software and whether it can enhance learning. So let us leave the mega machines to the anorak-clad techno freaks and start using old equipment effectively first. Anyone out there got a working ZX80?

RESOURCE CONFERENCE AND EXHIBITION

RESOURCE 1994 takes place on Friday 25 November, at Doncaster Racecourse. A leaflet with full details is included with this issue of MICRO-SCOPE; otherwise, telephone 0509 672222.

MAPE Photographic Competition

If you haven't thought of entering the MAPE Photographic Competition, it's not too late! All you have to do is enter a portfolio of photographs in one of the many categories and you could win CD-ROM capability for your school. Contact Yvonne Peers, Technology Centre, Newman College, Bartley Green B32 3NT for more details.

MAPE MATTERS

MAPE Conference 1994

Trevor Wright
Advisory Teacher for IT

It really doesn't seem a year since I sat down to write my experiences of last year's Conference up at York, but here I am again.

Even though I am a member of East Midlands MAPE I can honestly say I have had nothing to do with the organisation of the conference. This statement was true until, after registering and finding my room, I made my way to the Social Sciences Building. There I was hijacked by Stan Norman and Barbara Moore to put thousands of sticky labels on computers, monitors, cables, mice, in fact anything that moved (thousands is a slight exaggeration). Then it was up to the top floor transporting more kit! I never did find the IT Surgery which is where I was supposed to be. Never mind, perhaps I was more use with my sticky labels?!

After dinner I returned to the lecture theatre in the Social Sciences Building to hear from Mick Walker from SCAA, who was also on the technology team reviewing this area of the National Curriculum. Although Mick's address was interesting he did not give any hints about how IT would change post Dearing. ('Shame!' they all cried.) Unless of course somebody managed to 'oil the wheels' in the bar afterwards?! Still, by the time you read this we shall all know.

The good weather arrived on time on Saturday morning as it did four years ago when the conference was last here. It was the morning of the commercial presentations, so off to see RM's new art program *Colour Magic* – not a revolutionary art package for the Window Box machines but a perfectly adequate one. A short break before I went to tackle *Frontier 2000* from Cambridge Software House. In the 25 minutes that Brian Richardson had, we had a whistle stop tour of *Frontier 2000* on CD. What a fantastic program! Enough here to keep you and your children going for years! If you haven't read Brian's article in a previous *MICRO-SCOPE* about the blood, sweat and tears that were shed over this program then please do so; it is fascinating to read how it all developed. It is now in your *Multimedia Special* as well, so there's no excuse for not reading it.

After coffee it was into the lecture theatre to hear Acorn's 'Vision of the Future' from Roger Broadie. To try to sum up this talk in a few sentences would be a travesty. It was a fascinating and impressive vision of the future. What was interesting was that the word Acorn did not crop up too often; instead there were phrases like 'new literacy', 'an educational IT community' and 'the school as a resource centre'.

My afternoon was to be spent at one of the workshops, but I'm afraid I skipped off to another workshop: 'The Measurement and Control Detective Agency'. I offer no other explanation on this change of plan than to the fact that the writeup in the conference booklet was so tempting I just couldn't resist going to see what it was all about! I'm glad to say I made the right choice to change!

Janice Staines and Nick Capstick, project officers with NCET, were there to introduce us to datalogging with young children. Now don't have a sharp intake of breath, I know it sounds silly but it wasn't. Please read on!

We were using nothing more than a BBC B, a Sense interface, Prism software and *Sensing Science* from NCET. What we were trying to do was to tell the story of a graph. We looked at some which had been done earlier. The children would have to find the 'best fit' story for the graph and justify their decisions. The children in this situation would be developing their language as well as learning that the graph is not the end of the investigation. They could then test their story.

Our final activity at the end of the session was for us to get together in pairs to draw a graph of a nursery rhyme or fairy tale pretending to use two or three different sensors on an OHP transparency. Then we had to display our graphs while the rest guessed which nursery rhyme. Janice got ours, Humpty Dumpty, in about three seconds flat!

I thought I must be fair to RM and go to their 'Vision of the Future' as I had been to Acorn's earlier in the day. Unfortunately, RM did not seem to have a vision of the future apart from using PC compatible computers, especially RM Window

Boxes, and *Windows* software. I'm afraid I was not inspired at all.

Sunday dawned not quite so bright as Saturday but fine at least. Some delegates had obviously more energy than I had on Saturday night as could be seen from the array of wine bottles which seemed to litter our quadrangle. Oh that I still had that staying power!

Due to the popularity of the Ion camera and its use, extra sessions had been put on, which unfortunately meant I could only do half of my intended session on Multimedia in the morning with Juliet Joy, an advisory teacher from Dudley Education Centre. The idea of children using authoring programs, such as *Magpie* from Longman Logotron, the one we were to use this morning, greatly appeals to me. I will not go through all the educational reasons for their use, suffice to say that if this does interest you then just read the report of the Hampshire 'Horizon Project' in the *Multimedia Special*.

This was a very friendly and relaxed session where we were all shown how to use the *Magpie* program. You can see that I am at a very advanced stage with authoring type progams! As I was only there until coffee time my electronic book, complete with meowing cat, didn't get very far. But with Juliet's excellent notes I shall find time to go back again to it.

Just a slight aside here on the subject of authoring progams. Why is it that there seem to be more of these authoring type programs for the Acorn range of machines than for RM? The only one I have found for RM machines is *MM-Box* – a very good program but a little too sophisticated for primary school children.*

After coffee it was off to the Ion cameras! Brian Richardson from CSH gave a brief introduction to the use of the cameras and then it was out into the wilds to take some pictures that were going to be captured not on film but on a tiny floppy disc. Just to show you what a complete novice I was with one of these, I couldn't even press the button properly every time to take the picture! Never mind – we got some pictures. Then it was back to the lecture theatre to transfer our images onto the hard discs of our Acorn machines, examine our masterpieces, manipulate them, compress them and put them onto a disc so we could take them home with us. I really should have done the Ion camera workshop first then I could have dropped these pictures into my multimedia production using *Magpie*! Another thing to try when I get around to it! (See reviews, page 28.)

So after lunch, it was on to the last lap with Ken Dyson HMI and the closing lecture. It was a very interesting and thought-provoking lecture. I did take notes but I'm afraid that trying to put them back into a coherent whole is nigh on impossible. But one point that Ken made which really did stand out for me was when he mentioned that quality of learning that OFSTED (please keep reading after that naughty word) would be looking for when they come in to our schools and how similar these were to the aims of IT. I quote the whole paragraph below which is paragraph 3.2 in the OFSTED *Framework for the Inspection of Schools*:

> The quality of pupils' learning is to be judged in terms of:
>
> - progress made in knowledge, understanding and skills, including those used in reading, writing, speaking and listening, number work and information technology;
> - learning skills, including observation and information seeking, looking for patterns and deeper understanding, communicating information and ideas in various ways, posing questions and solving problems, applying what has been learned to unfamiliar situations, evaluating work done;
> - attitudes to learning, including motivation, interest and the ability to concentrate, co-operate and work productively.

I hope this has given you a flavour of my Conference '94. If you were there I'm sure yours was totally different. If you weren't there then I hope this article will have encouraged some of you to come along next year to Bath. If I can get some funding I'll see you there!

**Editor's note:* I would like to hear from any RM/PC users about their use of multimedia packages.

looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking

10 years on . . .

'I didn't like this book. It was like reading a workshop manual for a car. Most people don't want to know about big ends, cylinder head gaskets and whatnot; they just want to drive the thing. So it is with data-handling programs in the classroom.'

***MICRO-SCOPE 13*, Autumn 1984**

looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking

Regional news

Chiltern

We had a very successful morning in May at our new venue at Hatfield. Delegates purchased the discs of maths programs with vigour and we made a small profit!

On 1 October, again at the Advisory Unit, 126 Great North Road, there will be a hands-on session experiencing many aspects of IT and Festivals. Another disc of files will be available.

Forthcoming events: 'Art and DTP' (early February) and an 'Expert on CD-ROMs' (Summer term).

We hope to see you at one of these sessions. For more details, ring me on 0923 823411.

Betty Lumley

Great Western: Devon and Cornwall

With this copy of *MICRO-SCOPE* you should receive details of our Autumn term events. Please complete and return the software surgery sheet so that future events can be matched to your needs. Spring term dates will appear soon. Telephone Chris Taylor (0392 264828) or Richard Marsh (0752 607017 or 0752 365250) for further details or a cosy chat.

Richard Marsh

Eire

GMROC, the East Cork Teachers' Group, will be running inservice courses on IT for primary teachers at Youghal, Midleton and Dungarvan during the Autumn term. The courses are funded by the Department of Education and are free to teachers.

The CESI Conference will take place at St Patrick's College of Education, Drumcondra, on 25–26 November.

Luke McAuliffe

Scotland

The Scottish Committee are in the throes of preparations for the 10th Annual Scottish Conference. This is to be held in Northern College, Dundee Campus, on Saturday 26 November. There will be places for 200 delegates who will choose from the 17 workshops covering a range of themes, using machines most commonly found in schools and suitable for a wide age and ability range.

Theresa Mungall and *Sandra O'Neill*

West Midlands

'Things ain't what they used to be . . .' The West Midlands region has always been very active and attracted a good audience to its events. Sadly, we are now having to cancel some events. The AGM and Barbecue in June brought no new members, our recent twilight session on CD-ROMs had an audience of eight, and the Saturday morning Arts, Graphics and Images session on 5 November has been cancelled too. We're undaunted however, and are now planning another session on CD-ROMs ('All you need to know . . .') on the morning of Saturday 11 February, at Newman College.

More details of this and other activities are available from Yvonne Peers at Newman College, or Barry Wake, or, in some LEAs, your LEA newsletter. Do come along or let us know what you want before they change the refrain to 'MAPE ain't what it used to be . . .'

Barry Wake

looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking

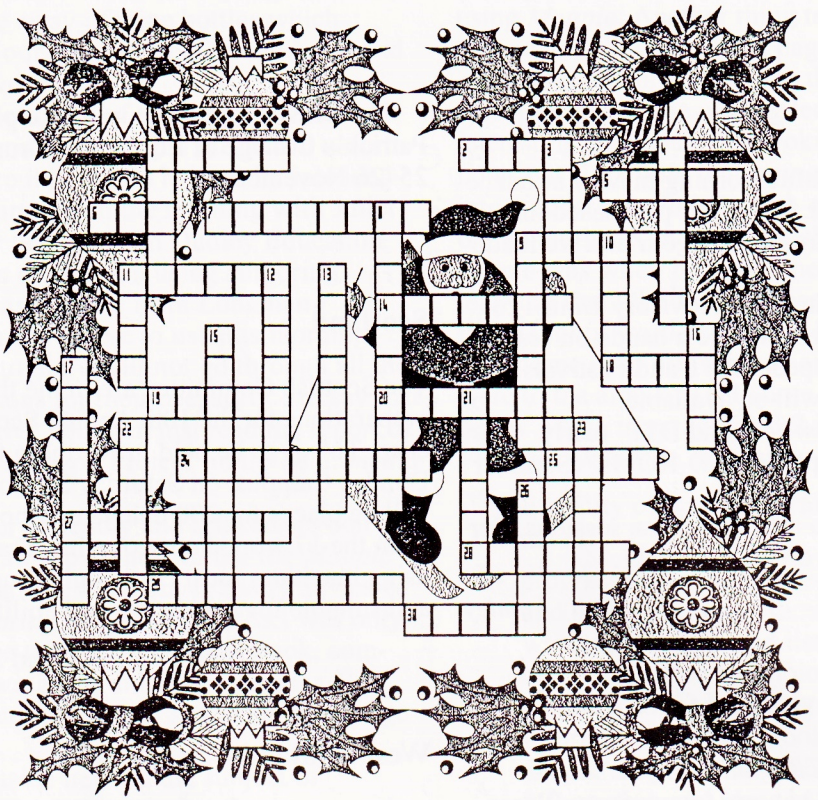
10 years on . . .

'Many teachers and advisers use things on the computer that they would never look at twice in any other educational context. Do you come from one of those schools that proudly boasts 578 program cassettes in its resource library?'

***MICRO-SCOPE 13*, Autumn 1984**

looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking forward looking

Christmas crossword *compiled by Des Thomas*



Clues for ACROSS

1. There were seven ----- a-swimming in the song.
2. Santa lives at the North ----.
5. A Shepherd watches his -----.
6. There was no room in the --- for Mary and Joseph.
7. You hang up a -------- on Christmas Eve.
9. The place in which Jesus was born.
11. A place for animal food where Jesus was laid.
14. Father Christmas comes in this way.
18. The Wise Men followed a ----.
19. A special song for Christmas.
20. It gets pulled at Christmas.
24. The place where Jesus was born.
25. Another word for present.
27. Stars shine --------.
28. We eat it on Christmas Day.
29. The --------- in a pear tree was a gift on the first day of Christmas.
30. We hope Santa ----- will leave us presents.

Clues for DOWN

1. Another word for Father Christmas.
3. The Wise Men came from the ----.
4. The father of Jesus.
8. Used for opening nuts.
9. Boxing Day is the feast of which saint?
10. Jingle -----.
11. The mother of Jesus.
12. The most famous reindeer.
13. Rudolph was one.
15. Joseph was a ---------.
16. We decorate a Christmas ----.
17. Christmas Day is the 25th of --------.
21. The person whose birthday we are celebrating.
22. The small bird with a red breast.
23. It is hung on the Christmas tree.

Solution on page 32

Christmas wordsearch *compiled by Des Thomas*

J H I E N L B U X K R Q P S O X J L W G
O U A M F A Z B S B G F K K S J I F Y K
C V V Q X I M O W C C U C D X N A L H C
Y S B W O A G X A Q S B N A T I V I T Y
J E K J N S A I N Z E T C H R I S T E C
T P K G P L B N S T L P E K D D E W W H
B X E N E U R G H U F T L P C W W I Q C
F R N G O A I L T P Y G E T H O V A X G
Q M N N V D E E I I K S M G X E L Z H Z
C A M B L H L R G N N O S V U B N F Z D
A I A Y E D T I E E X S K Z A E S R R E
K M G M O E F H C K E O E N T L T C E G
E B I R E T E N H A C X F L O L A L T D
P Y E A C A I H Q C I A L B I S R E N I
I H S S D K P K V M N J R H O L L Y E R
A T M V N E J H A A W E V C Z Q V I P T
X T V A S L Q S X X D S R E T V O S R R
V V R O L C X E A S J H O F R U K K A A
J F J S T A B L E M E L U Y G X N I C P
Y U K S X D X U G V X T L D Z M J F C C

Solution on page 32

Reviews

Canon Ion Still Video Camera

Distributors: Cambridge Software House (and others)
Price: £?0.00 Camera only. Digitising system, including camera available for Acorn or PCs.

'Write about it and draw a picture,' is an ages-old teaching tradition which sometimes seems more about filling time or developing art skills than developing reporting skills.

Although there is an undisputed place for drawings and diagrams in reporting, photographs can often provide a better record. Unfortunately, they are often overlooked because of cost of materials and the lack of immediacy caused by waiting for the results to return from the processing laboratory with the consequent worry that the pictures may not show exactly what was required or be lacking in some other way, particularly when taken by children new to manipulating this medium. The Canon Ion camera overcomes these drawbacks, making 'free' photography instantly available whenever required.

Used like an ordinary camera, pictures are recorded onto a 2-inch floppy disc which can hold up to 50 photographs at a time. These images may be viewed through a television set or wiped from the disc when no longer required, permitting more photos to be taken.

With the aid of a digitiser, however, the photographs may be transferred to a computer disc whence they may be manipulated with drawing or painting packages, incorporated into desk top publishing, hypertext or other multi-media applications, or printed.

Don't expect final prints of equal quality to conventional photography unless you can afford the top of the range camera and colour laser printer, however, and with digitisers you get what you pay for.

The camera is powered by a rechargeable battery or mains adaptor (which also charges the battery). If using flash, however, the battery drain will be high and it may need recharging before the 'film' has been completed. A separate battery pack is also available which takes standard AA size cells and can fit in your pocket.

The lightweight, compact camera has many useful additional features. The inbuilt flash triggers automatically when required (or can be made to trigger manually). The 'macro' facility enables close-up photography, of minibeasts for example. A self timer enables the photographer to set the camera and get into the picture him/herself. Continuous shooting will ensure that the exact moment the football hits the net or all the stages of the gymnasts' walk-over are recorded with no worries of having wasted film. Time-lapse photography, whereby the camera, set on a tripod, automatically shoots every 1–15 minutes, can be used to analyse slow activity such as a flower opening.

All in all this is an extremely useful additional to any school's IT hardware; ours is in constant use.

Christopher Robinson
Education Consultant

Epson Stylus 800 Ink Jet Printer

Available from: Epson, Campus 100, Maylands Avenue, Hemel Hempstead, Herts HP2 7EZ; Tel: 0442 61144. Telephone 0800 289622 free of charge for general help and support.
Price: around £200.00

Ink jets are becoming more and more popular as they provide laser-quality output at a fraction of the price. Although Epson are the people one thinks of in relation to printers in general, the mention of ink jets brings to mind names such as Canon or Hewlett Packard.

The Epson Stylus is one of a family of ink jets that Epson produce and in terms of a price : performance ratio in my opinion it is an excellent printer. I have used the other main types of ink jet and so my opinions are not based on limited experience. Unlike the 'bubble jet' kind of ink jet where each tiny nozzle in the print head receives a sudden burst of heat which creates the steam bubble, the Stylus uses 'piezo electric technology' where the ink delivery tube contracts suddenly when a pulse of electricity is applied. This allows the size of the drops to be controlled with great accuracy.

The printer comes with a built-in 100 sheet A4 paper feeder and will print on envelopes and transparencies. The print resolution is 360 dots per inch and in operation the printer is virtually silent. There are no dip switches to set and font selection from the built in fonts could not be easier – just a matter of pressing a button on a control panel.

When the ink runs out you simply buy a replacement ink cartridge which can be less than £10.00. Ink can be saved by using the printer's built-in economy mode.

The manual tells you all that you need to know and if you have problems help is only a telephone call away. I had problems setting point sizes of the fonts in Basic, and Epson faxed me a section of the programmer's manual to explain it to me in an idiot-proof way!

If you use an Archimedes, Acorn supply a RISCOS 3 driver for the printer and it also operates as an LQ 850. Computer Concepts also supply a turbo driver for the printer. For drivers on other machines contact Epson themselves who are continually developing new ones. The PC is well supported.

Try to get one for class use – it produces good looking worksheets – or persuade somebody that the school's image would be improved if the stationery produced for outsiders was enhanced – then ask to borrow the printer on extended loan!!

Prices vary – the cheapest I have seen is £192.00 + VAT but shop around. Contact Epson for more information. They also produce a very good booklet detailing the pros and cons of various printing methods depending on your particular needs. There is no 'hard sell' but plenty of helpful advice. New versions of the printer are soon to be released, the 800+ and a colour printer for under £500 that can print at 720 dots per inch.

Dave Hollett
Cadishead Junior School

Epson Stylus 800

Epson Stylus 800

Epson Stylus 800

Epson Stylus 800

EPSON STYLUS

Epson Stylus 800

Epson Stylus 800

Epson Stylus 800

Epson Stylus 800

Epson Stylus 800

Designing Sound
Publisher: NFAE, Spendlove Centre, Enstone Road, Charlbury, Oxford OX7 3PQ; Tel: 0608 811488
Micros: Archimedes, Atari, Amiga, PC286
Price: £40.00 inc. VAT

Designing Sound is a computer program which has been specifically produced to support Music for Key Stages 1–4, and beyond. The program is simple enough in operation to enable very young pupils to use it independently of their teacher, and at the same time to present musical challenges to advanced music students.

The essence of the program is the support of composing activities. At whatever stage in our musical development, be it novice or expert, the process of composing remains the same. We need to explore sound, and relationships of sound, experiment with ways of playing and combining these explorations, and finally work towards a finished piece of music – a composition. This process can result in very simple or highly complex musical statements.

Sound

The first part of *Designing Sound* enables the basic material of music – sound – to be easily explored. By interacting with the program and the keyboard, simply by moving a computer mouse, students can explore and create a whole range of sounds, from the ordinary and 'normal' sounds we expect to hear from a music keyboard through to the extraordinary and unusual sounds more often associated with the world of the *avant-garde,* fantasy or film. In this part of the software, students can progressively investigate and take control of the musical shape of sounds, for example being able to explore and determine:–

- an instrument's pitch: effectively its size, which can range from very small and high, to enormous and low or deep;
- its sound quality: effectively what it is made of. It could be metallic, wooden, watery, etc., or be some unusual combination of materials;
- how it actually plays: does it make its sound like a percussion, wind or stringed instrument? It could be a combination of these.

These experiments lead towards the creation of groups of new, customized instruments which can be saved on the computer disc for later use. This activity involves keen listening and attention to ways of performing, and many of the activities listed in the National Curriculum for Music can be encountered.

'Ensemble'

Creating structures and putting music together is supported in the other part of *Designing Sound*, a recording facility, or sequencer, called 'Ensemble'. In this musical ideas can be tried out and compositions gradually assembled combining instruments which are present in the keyboard or synthesizer with those which may have been constructed earlier. Music recorded in 'Ensemble' can be readily developed using the program. 'I wonder what would happen if . . .' becomes possible, as recorded music can be speeded up or slowed down (tempo), its pitch can be changed (transposition), it can be turned upside down (inverted), or even played backwards – in short, a whole range of musical devices can be tried out and evaluated. We can all think musically far in excess of our performance skills, and with this program we can actually try out and experiment with our musical ideas and make musical decisions.

Another instrument

At whatever age or level of musical development, when using *Designing Sound* we always encourage the computer to be viewed as another musical instrument or resource, rather than it being a separate activity. The book of materials suggests ways of combining the computer with the range of classroom percussion and orchestral instruments which may be present in the school, so enabling traditional skills to be extended and combined with newer approaches to music making.

Early years

A typical project with young children could, for example, begin with the task of finding two contrasting sounds. Following a discussion of contrast – light/dark, rough/smooth, bright/dull, loud/quiet, high/low and so on – the task could be to find and make two sounds which are very different. Performing these sounds then develops other skills. For each of these sounds – where on the keyboard is most effective? what is the best way of playing, single notes, groups or clusters? should you play quickly or slowly? A further stage could be to record a simple musical structure in 'Ensemble' using

two instruments. Comparisons could be made with different ways of playing percussion instruments, and a piece could be developed which combined with computer music, which can also include live performance, and some percussion instruments.

Developing and drawing shapes and textures alongside this work could lead to the production of graphic scores which represent the music, and contrasting movements could be developed into an accompanying dance. Comparisons could then be made with how composers from a range of styles and cultures have approached this idea. Clearly this project need not be confined to young children as developments from the initial starting point can be simple or complex, and a variety of lessons can be learnt from the process of composing in this way.

More advanced work

More advanced musical thinking could be explored, for example, through a project on 'reflections'. Appropriate musical phrases could be devised and recorded. Then using some of the facilities in 'Ensemble', these could be developed through looping, echoing, turning upside down and backwards, and so on.

Advanced musical and analytical thinking can be encouraged. Combining this material with, say, orchestral instruments can present many challenges and learning opportunities, including the development of notational skills.

Handbook

The *Designing Sound* handbook contains tried and tested curriculum materials – numerous examples of composing projects for many levels and stages of musical development. The book is also designed to give help to non-specialist teachers (music and/or computer) by presenting a practical course which introduces learning about the program with the development of musical concepts and composing techniques. As more complex and challenging composing projects are gradually introduced, so the materials encourage confidence in the non-specialist, and also provide challenges for the more advanced musician. As a bonus, using *Designing Sound* in music activities also fulfils many of the requirements of the IT National Curriculum.

What will it run on?

Designing Sound will run on Archimedes, Atari, Amiga and IBM PC286 computers, together with a number of synthesizers and most keyboards. Connections are made between the music keyboard and the computer through MIDI (Musical Instrument Digital Interface) and so both music keyboard and computer need to have MIDI sockets.

Designing Sound was developed with the financial support of NCET (National Council for Educational Technology).

Phil Ellis

Title: ***GridPro***
Publisher: 4Mation, 14 Castle Park Road, Barnstaple, Devon EX32 8PA; Tel: 0271 25353
Micros: Acorn Archimedes/'A' Range
Price: £37.50 single user; £75.00 site licence ex-VAT. Postage £2.50 on orders under £50.00.

The school stock cupboard is often the bane of many headteachers' lives – well, one of them! – or that of the unfortunate person to whom responsibility has been delegated. There can be few schools which haven't at least one teacher who always seems to leave it in a mess, opens packets of paper by tearing off the labels, takes the last few sheets without reporting the fact, or always leaves asking for something until the last minute and becomes very irate when it's not available. Recognise the scenarios? If you do then 4Mation's *GridPro* is a program which, at least, should cut down on the hassle, and ensure that you can always have a supply of whatever design paper you require quite quickly, including those which may not be available commercially or, if they are, are very expensive in small quantities. It could, in the long term, save you some cash.

The program recognises six different types of grid: Line, Polar, Dot lattice, Chequer, Tessellation and Tiled sprite. These options are made available via the Toolbox, which is displayed on the left of the screen. However, the handbook suggests that the quickest way to get know the program is in true 'Blue Peter' style by looking at some of those created earlier and supplied in the Examples subdirectory. Here you have almost 90 examples which, as far as the first three styles are concerned, might well include most of those grids which are required in the primary classroom and beyond, and editing them provides an easy method of finding your way around the program and producing exactly the grid you require.

Unlike the first four options, the objects used in the Tessellation and Tiled sprite options have to be created elsewhere – the shapes for Tessellation in *!Draw* or one of the similar but more sophisticated vector drawing packages; the objects for the Tiled sprites in *!Paint* or any other program which produces sprites, eg a scanner. Personally, I found the Tessellation option the most interesting and the most challenging – you have to draw the tile which forms the basis of the tessellation and create a bounding box. For those who wish to look upon this part of the program purely as a time-saver rather than an interesting mathematical challenge, there's scope for someone to produce a further selection of useful grids.

The Design menus offer you total control over the line thickness, dot size, spacing, angle, colour and, once you have created a grid this can be positioned anywhere on screen by using Select-drag. The size of the grid can be changed by Select-dragging on any of the eight handles, which retains the grid scaling, while an Adjust-drag changes both the size of the grid and the line spacing. These grids can be printed out directly from *GridPro* if the design to be printed does not exceed the printer driver page size, otherwise the file can be saved and loaded into another application

which allows large documents to be printed over more than one sheet – the program permits grids as small as A5 or as large as 12AO! More importantly, perhaps, is the fact that you can drop a suitably sized grid into another application, eg a DTP package, and incorporate it into a document such as a worksheet. As with all printed materials, your printer controls the quality of the final product.

Many users of vector graphic type programs reading this brief review will appreciate that a number of *GridPro*'s functions can be achieved by those programs. For those people the time factor in using *GridPro* offers an important advantage. Jonathan Marten, the author of this program who also produced 4Mation's *Vector*, has produced a worthwhile utility which will be valuable in any school. Many 4Mation supporters will be sorry to see the end of the free site licensing agreement on their software – who's to blame for that, I wonder? – but at least it does mean now that schools can have *GridPro* on approval for 28 days or, alternatively, you can send 4Mation a blank disc for a demo disc. So, don't just take my word for the usefulness of the program; give it a try yourself!

Des Thomas

Title: ***Getting Started with Information Handling***
Publisher: NCET, Milburn Hill Road, Science Park, Coventry CV4 7JJ; Tel: 0203 416994
Micros: Macintosh, Nimbus, Archimedes
Price: £17.50

What's in the pack?

The pack consists of an A4 booklet, 10 activity cards and three discs containing datafiles to support some of the activities, all contained in a cardboard wallet.

The well-produced booklet includes sections looking at issues such as: What is datahandling? Why is it important? What processes are involved? What skills need to be developed? Where to start, classroom management, differentiation, assessing progress, etc.

There are times when you feel you need to be given more in-depth information, but how much can you fit into 24 pages? I liked the comments on intervention strategies and was particularly pleased by the absence of computers in the illustrations which helps to emphasise the importance of the (practical) work done away from the keyboard; it is a pity that this was not highlighted even more strongly and explicitly in the text.

It is stated clearly at the start of the booklet that the activities provided are only intended as samples and that 'Children should be encouraged to carry out their own investigations'. The Activity cards are thus designed as starting points for the teacher rather than to be used directly by the children.

At the top right hand side of each card the Topic, Subject and Key Stage are listed. Most of the cards then take you through the same sequence of headings: What are we going to do? Why are we using IT? What prior experience do the children need? What will the children learn? What do we need? What do we do? Where do we go next? Opportunities for applications and effects.

This logical planning structure appeals to me though I would have liked to have seen a section on each card dealing explicitly with assessment and a clearer indication of progression through the information handling skills.

My first reaction to being provided with three discs, one for the Macintosh, a second for the Archimedes and a third for the PC, was 'No wonder it costs £17.50! Who do you know who has all three types of machine? Why should we pay for two discs we probably can't use?' However it is probably cheaper to provide all three discs than to have to produce and market separate packs for each platform. Who knows, maybe somebody does need all three.

There is a card which tells you which datafiles are on each disc and what format they are in: I have to admit I did not find the introductory paragraph very helpful! I must admit I also got a little confused when trying out the activity card on the topic of The Weather: it said I needed the 'appropriate datafile 'WEATHER' included in this pack' – I assume this refers to the files called BIRMINGHAM and LILONGWE! To be fair the files all loaded without any problem.

Who's the pack aimed at?

The letter which accompanied the pack which I received says that it 'is intended to support teachers who want to improve their knowledge and understanding of how to develop the information skills of their children through the use of IT'.

I felt that the producers did not seem clear about who their intended audience was. There is thus a lack of consistency in the level that the material is pitched at. This is most clearly illustrated in the section of the booklet called 'Making Sense of the Jargon' which gives explanations of terms such as 'database', 'field' and 'spreadsheet' but does not include other terms used in the pack such as 'relational database', 'record' and 'CD ROM'.

Should I buy a copy?

If you want starting points for how to use IT to develop datahandling skills with Primary-age children then the pack is worth getting.

Anyone who knows me will think that I have been won over by the fact that seven of the ten activity cards take the topic of food (one of my favourite subjects). However this is not the only reason. There is a good deal of useful material here in a form which is readily accessible and rapidly applicable in the classroom. The materials may be copied for educational purposes (see inside back cover of booklet for details) so you should be able to keep a complete set of the activity cards even when colleagues 'forget' to return them.

Who did the review?

I am a lecturer in Primary Education at Cheltenham & Gloucester College of Higher Education. I have a particular interest in the 'effective use of IT' (whatever that may mean) to support children's learning. Pedagogically I am a 'Yearner'[1]!

I would like to thank Kate How for providing me with her perspective on the pack prior to my writing this review. Kate attended one of the GEST Primary courses on Information Handling which this pack supports though she claims to lack any significant IT competence. She has a keen interest in the teaching of History and Geography in Primary Schools.

Peter Twining

[1]See Papert, S. (1993) *The Children's Machine: Rethinking School in the Age of the Computer.* Harvester Wheatsheaf, London.

Support for children with learning difficulties:

BRITISH DYSLEXIA ASSOCIATION

The British Dyslexia Association produce a very useful newsletter for computer coordinators. This contains details of their national and local events, news from local associations and a range of supportive articles.

For further details contact:

Peter Nowson, National Computer Coordinator, Vicross Cottage, 10 Rosehill Street, Cheltenham, Gloucs GL52 6SJ; Tel: 0242 521335 or 0242 261214.

Xavier Educational Software Ltd.

For over 30 years, the Psychology Department at Bangor University has been carrying out research into Dyslexia. Research findings show the relevance of the structured, phonetic approach for pupils who struggle with literacy learning and this approach is put into practice in the software produced by Xavier Software.

For a full catalogue of software (Acorn), write to:

Xavier Educational Software Ltd., Department of Psychology, University College North Wales, Bangor, Gwynedd LL57 2DG.

Solution to Christmas crossword, page 26

Across

1. SWANS
2. POLE
5. FLOCK
6. INN
7. STOCKING
9. STABLE
11. MANGER
14. CHIMNEY
18. STAR
19. CAROL
20. CRACKER
24. BETHLEHEM
25. GIFT
27. BRIGHTLY
28. TURKEY
29. PARTRIDGE
30. CLAUS

Down

1. SANTA
3. EAST
4. JOSEPH
8. NUTCRACKER
9. STEPHEN
10. BELLS
11. MARY
12. RUDOLPH
13. REINDEER
15. CARPENTER
16. TREE
17. DECEMBER
21. CHRIST
22. ROBIN
23. TINSEL
26. CARDS

Solution to Christmas wordsearch, page 27

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. . . . . . . . . . . . . . . . . . .
. . . . . . . B S . . . . . . . . . .
. . . . . . M O W . . . . . . . . . .
Y . . . . A G X A . S B N A T I V I T Y
. E . . N . A I N . E T C H R I S T . .
. . K G . L B N S T . . E K . . . . . .
. . E N E . R G H . . . . P C . . . . .
. R . G O . I L T P Y G E . H O . . . .
. . N . . D E . . I . S . . . E L . . .
C A M . . H L R G . N . . . . B N F . .
A . A . E D . I E E . S . . . E S . R E
K . G M O . F . C K . . E . . L T . E G
E . I R E T . N H . C . . L . L A . T D
. . E A . . I H . C . A . . . S R . N I
. H S . . K P . . . N . R H O L L Y E R
. T . . N E . . . . . E . C . . . . P T
. . . A S . . S . . . . R . T . . . R R
. . R O . . . . A . . . . F . U . . A A
. F J S T A B L E M E L U Y . . N . C P
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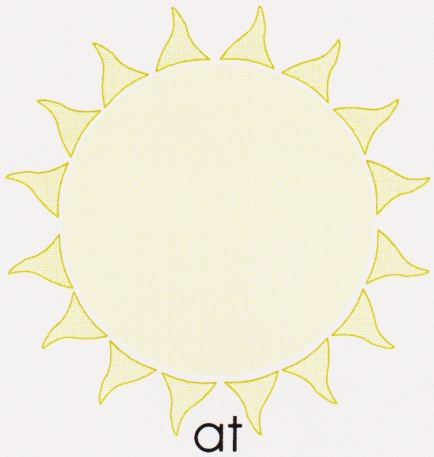

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