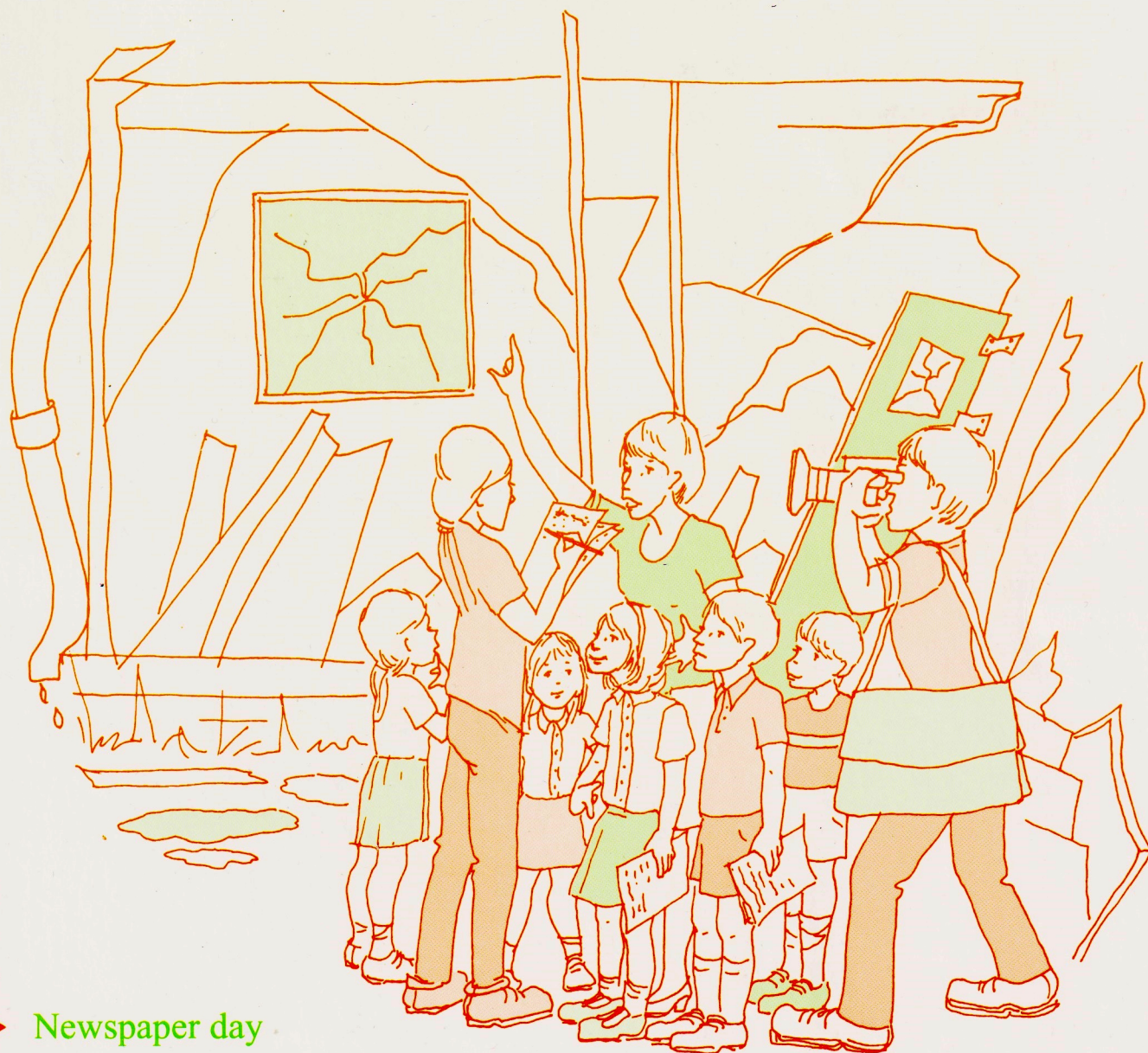


# MICROSCOPE -

► Issue 45

► Summer 1995



- Newspaper day
- A Parents' Computer Funday
- Creative work with art packages
- Report on Primary CD-ROM initiative
- Challenge of the talking word processor

NEWMAN COLLEGE with MAPE

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# MICRO-SCOPE 45

## MICRO-SCOPE matters

**Chris Robson and Heather Govier**  
*Publications Group*

### New feature!!

In this edition of *MICRO-SCOPE* we introduce a new regular feature in the form of a pull-out centrefold. This consists of an A4 poster for the staff room notice board and a number of photocopiable activity sheets.

The poster details the content of this edition, flags up the members of staff who might wish to read it and has a circulation list with tick boxes to help you keep tabs on who currently has the magazine. The objective is to allow IT co-ordinators to share the ideas in *MICRO-SCOPE* with colleagues and to publicise MAPE projects to staff who may not see themselves as IT experts.

The activity sheets will adopt a common format: each an A4 page presenting a single idea for a practical use of IT within the wider curriculum. Over the next few editions of *MICRO-SCOPE* we shall try to ensure that activities cover a range of curriculum areas, target ages, experience levels and IT capabilities, each of which will be clearly indicated down the side of the page.

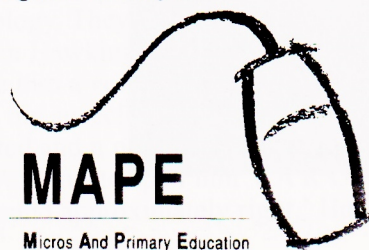
There are three activity sheets in this edition: an art idea, suitable for pupils of all ages; a maths exploration for pupils at the upper end of Key Stage 2, and an English activity which links Year 5 and Reception children. All use generic software (a paint program, a spreadsheet and a multimedia production package) which should already be available as part of the basic software toolkit in all schools. Thank you to Carol Cooke from the Coombes Infant School, Arborfield, and Heather Govier for these first activity sheets.

We hope that you will find both of these features useful and would welcome feedback on their value. We would also be delighted to include an idea of yours as an activity sheet in a future edition, so if you have found a little task that makes effective use of IT and works with your children, drop a note to the editor and share it with us all.

And it's not just your ideas for activity sheets we want. Yes, you're right – this is the editor's usual appeal for contributions, not particularly thinly disguised. This issue comes to you very late in the summer term, largely because I had insufficient material to publish earlier in the term. I would like to hear from anyone with accounts of classroom practice, reviews of software or hardware you have used, or your views on any aspect of IT. Perhaps you would like to respond to Roger Keeling's article about the possible uses of IT in the year 2015; Roger talks about assessment and learning in higher education . . . but how do you think the same issues will affect learning in schools?

### And finally . . .

At this year's MAPE Conference in Bath, the new MAPE logo was launched. The philosophy behind it is to reflect MAPE's concern with both IT and primary education, so the full colour version features a red mouse with a blue 'tail'. Look out for the new logo in other publications, and at national events too. By the time you read this, we shall have spent a week exhibiting at the World Conference for Computers in Education in Birmingham. We shall also have a stand at the RESOURCE Conference in Doncaster (24 November) and at BETT '96 (Olympia, 10–13 January). Do come and talk to us at any of these events. Have a good holiday!



## ***'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*

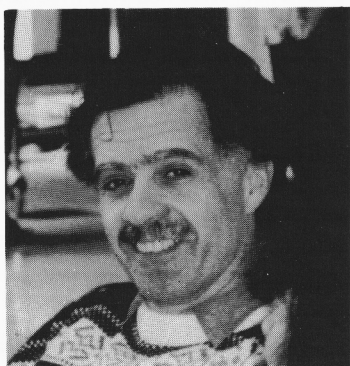
Two questions from the same school this time which, although at first sight appear quite different are in fact related and raise points which may be useful to a great many schools.

### **■ FORMATS 1 – GETTING IT WRITE**

**Our governors are producing an informative magazine to present their annual report to parents. One of the secretaries has the task of typing this on an office IBM PC computer. They wish to include some children's work. Much of this has already been typed on the classroom Archimedes computers. Does the secretary have to retype all this work or is there a quicker way?**

It is now quite a straightforward task to move text from one word processing program to another or from one machine to another.

1. Make sure you have a disc formatted to DOS 720K. (You may use an Archimedes or IBM PC system to format a floppy disc in this way.)
2. Your word processor will have the facility to 'export' or 'spool' text or save 'plain text' or in 'ASCII' format. These all do the same thing. They save the writing though not details of fancy type fonts or layout details. Use this facility to save the writing onto the floppy disc.



3. The disc may now be put into any other machine with any other word processor or desk top publishing program whence the text may be 'imported' or loaded as 'plain text' or 'ASCII' format.

4. The imported text may need to be tidied, fancy font styles introduced or changed in other ways but the amount of work will be minimal compared with retyping the whole thing.

### **■ FORMATS 2 – PICTURE THIS**

**Our school has a scanner in the admin. office connected to a PC. We use Archimedes computers in the classroom. Is it possible to use the PC scanner with an Archimedes machine to scan children's pictures to use within desktop publishing?**

I don't know what scanner you have and how it is connected to your PC. It may be joined by a serial connector or a special card. To join it to an Archimedes would need a 'podule' to be fitted to the machine. There is, however, a much simpler answer to your problem.

1. Use the scanner with the office PC to scan the pictures and save them onto a floppy disc formatted to DOS 720K in 'TIFF' format.
2. On the Archimedes, load the program 'Change FSI' that is provided on the RISC OS support disc.
3. With the disc carrying the scanned image in the Archimedes, drag its icon onto the Change FSI icon and the image will load into the Archimedes computer. It may then be saved as an Archimedes image to be used in any application as desired.

Change FSI may also be used to change pictures saved on the Archimedes in one screen format to a different screen format. Clicking the middle (menu) mouse button on its icon will reveal the possibilities. (There are other programs available to change Archimedes screen images to PC format.)

# The challenge of the talking word processor

Micheál Ó Dúil

LogoS

I still see Trevor regularly, on my way to school. He is now in his 20s but when I taught him he was seven. In company with Martin, Trevor has stuck in my mind ever since. These two lads, and another I will tell you about later, wandered through my memory as I listened to Tony Burrett (a Head-teacher from Cleveland) talking at the RESOURCE conference. He was talking about using *Talking PenDown* in his school.

Tony had come across the work done with this software by a couple of Somerset psychologists, who had written a structured phonics package around it. This he built into a project in his inner city school. The children, their parents, and half the local community were drafted in to develop a reading remediation programme. The motivating effect of the computer and the talking word-processor package was the catalyst for an experiment in community involvement in learning to read.

As he talked, I recalled my former pupils. Trevor, a hyperactive boy with a language disorder who not only learned to read, but could do so from four feet away with the book upside down. When I asked Trevor to read aloud he did far better if I let him read sentences backwards, because the sense didn't get in the way. Martin couldn't get his sums right – he kept miscounting the counters – and had invented his own number system. This went along the lines of, “the bigger the number the larger the permitted variation in answer.” We got round his problem by doing lots of sums using one of the first electronic digital calculators. These two lads sowed the seed of an idea that I would now like to share with you.

Reading, 'riting and 'rithmetic, concern over which led to the National Curriculum, are both the product and progenitor of the highest of our high technologies. It was our alphabet and our number system which, 150 years ago, made possible my compatriot George Boole's linking of language and number. The notion that you can number letters and do (binary) arithmetic on them was the intellectual breakthrough needed before we could develop computers. It took another 100 years for the transistor to be invented and make computers

practicable. Difficult though it might be to comprehend, that 'keyboard' sitting in front of us is the highest development yet of a writing technology that started with the phonetic writing of the Greeks and the number system of the Hindus.

When, in Year 1, we start teaching literacy and numeracy, not only do we expect children to accelerate in their understanding of English and maths but we ask them, at the same time, to master a technology that has taken millennia to develop. Given the rich diversity in our children, it is hardly surprising that some have specific difficulties with the technology. The tragedy is that failure to master this particular technology, unlike failure to learn to ride a bike, can warp the child's view of school, and of themselves, for ever more.

The funny thing about reading and writing in school (the perennial controversies about reading apart) is that we begin with the most technologically interesting forms: single letters and numerals. Yet, as soon as we have taught children the basics we rush headlong towards the more graphic 'joined up' writing. We seem to have an inbuilt urge to 'biologise' the technology as quickly as possible. Perhaps this is because most primary school teachers are women, the gender that has less difficulty with language.

We also see the flight from language technology in computer applications related to it. The books of Beatrix Potter can now be had in digitised multi-media format. Ms Potter's text is read to you in a beautiful speaking voice as a facsimile page is displayed on the screen. Sherston Software use Richard Briers to read their *Talking Stories*. The pinnacle of linguistic technology is reduced to Multimedia 'Jackanory'.

Talking word-processors use a different speech technology. They turn writing into speaking. Stephen Hawking (*Brief History of Time*) uses one to give him a voice; and complains that 'Unfortunately my speech synthesiser is not very well educated and it pronounces him (Wagner) with a soft W. I have to spell him V A R G N E R to get it to sound approximately right.' Hawking's tale

should cause any teacher concerned with reading, writing and spelling to stop and think – very hard.

Talking word-processors do what we are trying to teach our children to do: to read aloud. They do this by reversing the history of writing. That is, they take the letters of the words and turn them back into sound. Naturally, the result ‘sounds’ awful. Hawking describes it as Dalek-like. I prefer to think of it as writing you can hear. The ‘poor quality’ of the speech tells us a great deal about the enormity of the task we set children as we happily introduce ‘S for Sammy Snake’. Our writing is close to our speech, but not that close. The talking word-processor tells children just how close the relationship is. To express their nature in terms we teachers understand, ‘talking’ word-processors are the ultimate phonic resource.

Now, if I want children to come to a quicker understanding of just what it is in speech that we write down, which do I get to read the story: Richard Briers or the computer?

This is the crunch. Richard Briers reading the story fulfils all our expectations of what story reading should be about. Yet it tells children precisely nothing about what the printed word represents. The life put into the text is just that, eloquence breathed into dull text by the genius of the story teller – layer upon layer contributed by the speaker, not the text. This is what mothers, fathers and nursery teachers have done since reading became the norm in our society. But what of teachers working from Year 1?

Given that we now have a means for reading out any text, how do we use it? (Particularly as we will shortly have a technology that will enable the computer to write down what children say.)

My answer comes from another child. Steven was the classic ‘inner city’ child. Deprived, underweight, no books at home. His language environment consisted of the wallpaper of TV and the barked language of the street. He was a non-starter with reading and writing. When he was about nine, he had the chance of a few sessions with an early talking word-processor, using a concept keyboard for input. Soon it was obvious that realisation was dawning. Steven twigged that it is the words only that get written down – not all of what you say. When he stopped trying to find the intonation in the words on the paper his reading and writing improved. Though Steven never made a great reader, he ceased to be demotivated by a technology he failed to comprehend.

Trevor taught me that there is a vitally important technological competence in learning to read and write, independent of the content. Martin taught me that, where the ‘system’ is not understood, a more responsive form of the technology can overcome the problem. Steven tells me that the technology that reads text aloud has even more to offer than the calculator used by Martin. I wonder what Steven’s progress might have been had he had earlier access to the phonic microworld of a talking word-processor and been encouraged to explore?

My concern about Tony Burrett’s project is that nowhere did he analyse the technology he had elected to use. For him the objective was social: a greater involvement of parents with the school. He made no claim to understand the medium he was using. He made no attempt to explain it to his audience of teachers at RESOURCE. The talking word-processor had not been systematically incorporated into the curriculum at his school. In effect, he called in a Mum’s Army to teach with the new technology.

The challenge of the talking word-processor is a professional one. Are we teachers willing to:

- accept that writing is a technology, not just a graphology?
- learn about this technology and revise our view of language?
- put the computer technology of language into the hands of children?

If we persist in a consumerist approach to IT, one which is typified by recent multimedia offerings; if we look always for appealing products and take a social view; then the *Talking Story* will win out and John Patten’s Mums’ Army will take over the school.

On the other hand, if we assert that teaching is a profession, we must accept the demands this places upon us to understand the nature of what we teach and the media through which we teach it. This means that we now need to consider, very carefully, where and how talking word-processors, and other evolving aspects of language technology, might be incorporated into primary school teaching.

The computer is more than a tool to be used in school. It is a technology of language. The talking word-processor poses the greatest curricular challenge since writing was invented. Are we capable of rising to it?

# Newspaper day

**Christopher Robinson**  
*Education Consultant*

An earlier-than-usual start, as I called into the local newsagent's on my way to school to collect a copy of each of eight national daily papers. Listening to the radio news as I continued along the familiar road, I noted that the Queen Mother was making a visit to the area that day; hopefully there would be a live broadcast.

Planning for this day had started a couple of weeks previously. Having visited our local newspaper offices to see how the professionals do it, we were to see whether we could be as productive. One hundred and twenty Year 6 children had set themselves the target of producing a 32-page newspaper in just six hours.

Everyone knew his or her role. The children had applied for their posts. An editorial team of 20 occupied a central work area supervised by two students on teaching practice. In the four classrooms leading from the area, teams of 25 children made up the advertising, sport, features and news teams, each supervised by a class teacher whose role was to act as a helper to the 11-year-old workers. (Each had particular specialisms in language skills, art or, in my case, technology.)

An impressive array of computers was available to us: four Archimedes hard disc machines equipped with a suitable range of software and

attached to a printer, plus an IBM PS1, 14 laptop PC computers, and four Amstrad notepad portable word processors sharing four more (draft quality) printers.

I was positioned in the newsroom. The previous evening I had rearranged the furniture and utilised multiblock extension cables to enable a long 'sorting' table upon which the national dailies were to be spread, two blocks of desks with three laptops and one draft printer on each, another block of desks with pencils and paper and a television set connected to the Archimedes computer which, in addition to the digitiser, held the picture library of clip art on its hard disc and had a CD-ROM drive with encyclopedia accessible. The display board and blackboard had been cleared in preparation for a prompt 9.00 start. (Spare sockets held slow chargers equipped with stand-by batteries for the portable word processors and the Canon Ion camera.) The office had been alerted that a group of reporters would be arriving during the day to receive a fax from the meteorological office.

It was 08.30, and the first children were congregating on the playground. I was pinning job sheets to the board: we needed reporters to cover the recent measles vaccination day, the sponsored silence that had netted £3000 for Children in Need,



and the newspaper day itself. Then we would need reporters to report on the visiting speaker at the morning assembly and the lunch hour school council meeting. In addition, we were to provide details of that evening's television viewing and act as critics reporting on the previous evening's viewing. Other children would scan the national daily newspapers I had just purchased, looking for items of local interest. Others would watch the broadcast news coverage, via the digitiser in a window of the computer display, ready to snatch any relevant frames. (The sound was supplied through the TV's loudspeakers but its display was utilised to scan the teletext pages.) We also had a radio. A 15.00 deadline had been set for the paper to be photocopied on double-sided A3 sheets for sale at 15.30 – home time. Our newsroom deadline was 14.30. It would be a hectic day.

The children set to with gusto. Whilst reporters recorded interviews with children who had received injections or had remained silent for money or were engaged in the exceptional activities of the day, photographers brandished the Ion camera and others typed stories. An exultant group 'shot' the Queen Mother visiting Ark Royal, which also provided a suitable picture for that story.

A group of children dialled the faxbak number of the Met. Office to receive the weather maps, so they could be reduced on the photocopier to fit the allocated space. It was then that the first hint of a problem materialised. The photocopied image was much too faint! A new toner cartridge was added . . . it was agitated . . . the density control was set to

maximum . . . the waste bottle was emptied. The copies were getting fainter and fainter. The technician was sent for. (The editors decided to reallocate space so the faxed images could be used at the actual size rather than in a reduced size.)

Meanwhile, work progressed at a frantic rate. The children voluntarily forewent their break times and ate their sandwiches 'on the hoof', as they strove to meet the deadline.

At 14.00, there were just 30 minutes until our news deadline, and reporters were beginning to relax as stories were being tidied and retyped where necessary. We were going to make it. BUT *'Hold the front page!'* A pupil arrived at the newsroom with a request: 'Could you send a couple of reporters to the temporary classrooms? They are unsafe and the children are having to evacuate!'

The young hacks looked for advice from me. Through cynicism born of age, I suspected this was a hoax or someone thought we hadn't enough news to keep us occupied, but it wasn't 1st April so I despatched two reporters and a photographer who shortly returned breathless; it was actually true. Following an LEA survey of the building, it had been condemned on site and children had been requested to evacuate to the hall for safety – the biggest drama we had seen since the hall roof had blown off in the 1987 hurricane!

With minutes to spare, the new front page story was pasted up. The newspaper was just five minutes late for its printing deadline. BUT the photocopy technician hadn't arrived and copies

were by now illegibly faint. The children were moderately disappointed to be let down at the eleventh hour by the one piece of technology we didn't have a backup for. However, they all knew they had accomplished what they had set out to do. They had worked hard and thoroughly enjoyed themselves. 'Can we do it again sometime?' they asked. 'We'll see!'



# A Parents' Computer Funday

**Barry Wake**

*Educational IT Consultant*

The very idea of combining 'parents' with 'computers' in a 'funday' might well cause an eyebrow or two to be raised in the staff room. Parent/governor evenings about 'How We Use IT to Help Our Children Learn' are quite common nowadays (invariably with the ulterior motive of how much better we could do if we had more . . .). You always get at least one dad or mum at the end who says in a quiet voice: 'I'm thinking of buying a computer for the children for Christmas. What do you suggest?' Or sometimes even, 'How can I upgrade our ABC XXX to CD-ROM?'

From the parents' point of view the whole area of IT could easily appear quite daunting. Almost every high street now offers an enormous range of 'talking' toy computers and very powerful commercial ones of all sorts and sizes, and costs – but all combining 'education' with 'fun' and always advertised as something your child cannot afford to be without! Even if parents use IT themselves at home or at work, the systems and software are often very different, certainly in aim and approach, from those in the classroom. Then there are the continuing reports in the media about how we shall all be on e-mail or Internet soon, with young children having easy access to all sorts of things we don't believe they should have access to! The real problem is that parents' good advice, good experience and common sense is probably needed now even more than before. As Professor Stephen Heppell puts it in a recent NCET video\*, the input from parents *'is just as valuable with computers as with books or jigsaws.'*

In fact, this video, called 'Every Home Should Have One', was produced along with other information sheets and a brightly-coloured and very useful pamphlet entitled 'Learning together with computers' as part of NCET's *IT and the Family Project*. The video itself is one of the best every to come out of the NCET stable. It is aimed at

parents of children of all ages and shows a whole range of situations where computers play a major role in the learning environment, from young children at the early stages of reading and writing, for example, to older pupils producing multimedia presentations or learning French. It is extremely well put together, well paced and very easy to watch, at the same time as being very informative. The underlying 'up-beat, feel-good factor' is pretty high on the optimism scale and Stephen Heppell as the presenter certainly strikes the right note with his warm, friendly, non-threatening, and non-technical approach which is unlikely to turn any parent away.

The video was actually just one of the activities presented at the very first Parents' Computer Funday, held one Saturday last November. The Funday was in fact planned and organised as a joint venture between NCET, Birmingham LEA and Selly Park School, Birmingham. It set out to help inform parents about how computers are being used in school and how they could help their



children in the home. The day itself was another element in the *IT and the Family Project* and the hope was to replicate this Funday in other areas to try to reach as many parents as possible in an informal and non-threatening way.

The Parents' Computer Funday itself was advertised locally and nationally, but being the first venture of its kind was full of unknown quantities. However, on the day, it all went very smoothly and parents were able to see and use CD-ROMs, the Internet, control equipment, multimedia applications and integrated learning systems. They could also get advice and information about how IT can support special needs, careers, library resources, or about choosing a desktop or laptop computer. In the meantime, their children were being looked after in a well-resourced crèche, too!

In the event, it proved to be a great success. Well over 150 parents came along and their evaluations were full of praise: '... excellent, well-presented and brilliantly hosted display ... very informative and a lot of fun ... it educated us too ...!' On the negative side, we could have managed with more parents ideally, but it meant that we could give that bit more time to chat to those that had come. Another reason for the success was undoubtedly the informal, non-threatening atmosphere. There were big posters around, balloons and streamers, presenters with first-name badges, casually attired, some even with silly hats on and not a grey suit in sight! Many

parents actually commented on the impartiality of the advice available and on the enjoyable lack of commercial hype and sales pressure.

There were clearly advantages in placing this Funday at a large, well-equipped secondary girls' school, in terms of space, resources, facilities, etc. But it could easily be put on anywhere, and indeed, one of the aims for NCET was to replicate this day in libraries or community centres as well as in schools. So, if you're thinking of planning such a Parents' Computer Funday yourselves, on a small or large scale, our advice would be to go ahead and do it. And if you want some help, NCET have some extremely useful information available. That video is well worth using and the *Advice for Parents Pack* is very eye-catching and full of valuable information sheets.

The recent developments in IT are moving extremely fast into some unexplored territory. But at the same time they offer 'wonderful new opportunities' for parents and children alike, and a chance to learn alongside each other. As Stephen Heppell says, '*Take it and enjoy it*'.

\*The video lasts ten minutes and can be obtained from NCET at £7.50, although a small number are available for loan to primary schools.

Further information about the *IT and the Family Project* from Jenny Brown or Julie Wright, NCET, Milburn Hill Road, Science Park, Coventry CV4 7JJ (Tel: 01203 416994; Fax: 01203 411418).



# Report on initial findings from schools in the Primary CD-ROM initiative and visited during the Autumn Term

**Anne Sparrowhawk**  
IT Field Officer – NCET

Since becoming field officer in August 1994, I have had the privilege of visiting more than 55 of the schools that received a CD-ROM computer from the CD-ROM in Primary School initiative, 1994. The schools ranged in size enormously; some of the schools were small village primary schools with as few as 42 children on roll. Others were large inner-city primary schools with 800 children on roll. For almost all, this was a completely new experience, and one which required that staff revisited the issues of IT provision within the school. This report looks at the situation as I saw it, and discusses the issues schools have faced and how they have resolved them.

## Where shall we put it?

This issue was significant in determining how the CD-ROM was to be used in schools. This bar chart illustrates the split between classroom, library and other spaces, what the computer was placed on and whether a printer was attached to the computer or not. Those schools who put the computer into the classroom, generally did so with a teacher who had

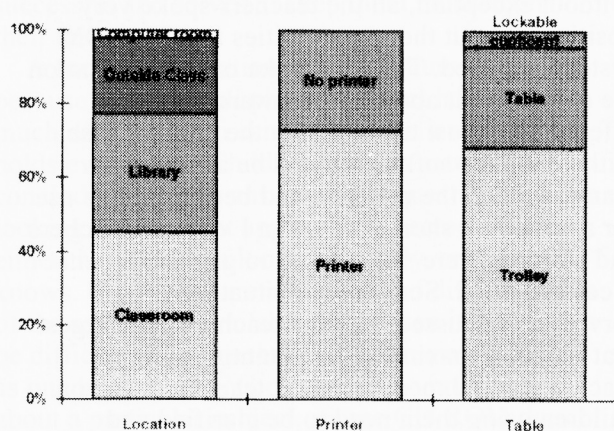


Fig. 1. *Where shall we put it?*

an interest in IT and who was either confident already with the computer system, or could quickly become so. Associated with this was the intention of that teacher passing on her experience to others within the school in formal or informal training sessions.

Where the computer was located within a classroom, it gave the children in that class considerable opportunities for exploring the materials it provided, but also meant that the rest of the school population had little or no chance to use the system. Some schools resolved this by allocating each class a time-slot within the school year, so that all children had classroom access at some point during the year. Clearly the larger the school the shorter the timeslot.

Those schools who chose to place the CD-ROM machine within the library did so often with a clear purpose that they wanted to ensure that all staff increased in confidence with the machine and software through time. Training sessions were often arranged on a whole-school staff basis, and experiences shared. The library timetable was critical to ensure that all classes were given opportunities to use the machine. In practice, this left many times during the school week when the computer could not be used.

Sometimes the architecture of the school provided open spaces outside classrooms where small groups of children could work on the CD-ROM with a teacher within earshot. This allowed children from a number of classes to access the information when it was appropriate to do so given negotiation between the teachers.

## What are we going to use it for?

Most of the schools I visited fell into one of two camps: those who saw CD-ROMs as offering a wealth of current information with which to augment the printed information available, and

those who saw the need to develop the children's use of this technology, since this was how information would be presented in the future. Few schools talked about both of these issues. Whether schools focused on content or on skills significantly impacted the ways in which the children were encouraged to use the machine.

### *Content*

Some schools are looking at the CD-ROM as a means of delivering good, current reference material or information. One teacher described it as 'a metre or two of new book material for the library'. Often the children were sent to the machine to find out specific information, usually having been told which disc to search in, and were expected to return with the appropriate information, usually in printed form. For these teachers, the critical factors were to know what information the discs offer, what age they are designed for, and to have confidence that the children would be able to print it out. Searches of this sort were generally completely related to the National Curriculum topic being taught, and the appropriateness of the material was central to the satisfactory use of the machine from the teacher's point of view.

Teachers have traditionally seen encyclopedias as reference points for Humanities subjects. One of the practical constraints of using some of the American encyclopedias is the lack of resources with a British focus. One child I saw, had not appreciated that the information about Birmingham related to Alabama not the West Midlands. The current CD-ROMs may be more relevantly accessed to find out information to support scientific content than history and geography.

### *Process*

Other schools were looking at the CD-ROM as a tool for teaching children important skills, some IT based, others more general. In IT, they were expecting children to be able to save out text and pictures to be loaded into word processor or DTP packages, and for the children to use the information to enhance and illustrate their work. For these schools the appropriateness of the material was not quite so critical. For them the outcome they wanted to measure was the confidence and success with which children come back to the classroom with useable text and pictures. In a number of schools where this was the focus, they talked about the value of the system to encourage skimming and scanning text and pictures to find

appropriate material. The view that some of the encyclopedias are at too high a reading level has actually been a benefit as far as these teachers are concerned as this encourages children to skim through the text to find relevant dates, names and facts.

### *How do we train the children and the teachers?*

Many schools have adopted, either formally or informally, various ways of cascading the information about how to use the system. In many schools the experts are the children! Sometimes children from one year group introduce specific software to other year groups. In several schools, children from the top classes – sometimes Year 6, sometimes Year 2 – have to find the children they have been allocated within the other classrooms, teach them about the program, and then safely return them to their proper classroom. This is a valued social activity for number of schools, and the introduction of the machine gave a real reason for bringing children from a variety of year groups together.

### *What shall we use first?*

In many schools the talking stories have been used to introduce the children to the system. They all operate through a point and click mechanism and give a valued introduction to the use of the mouse and learning basic functions such as opening the program, turning pages, clicking and dragging, and making choices. The encyclopedias have been extensively used on all platforms as they provide a large body of information which might be relevant to many different topics. As a result children do not have to learn about too many different programs at once.

### **How can we measure the success of the machine?**

Without exception, all the teachers spoke very positively about the opportunities the CD-ROM system provided. They all spoke of the motivation the children felt about the software that was offered, and most talked about the relative ease with which the software could be accessed. In many schools, the machine had been in active use for a relatively short time when I visited. Teachers and children were still getting to grips with what it could deliver. Some of the situations I observed, or discussed with the teachers, do suggest that to really maximise the potential of these machines, the expectation that teachers place on children using them need to be clarified and formalised.

## Planning for success

Often children come to the machine with a clear perception of precisely what they want to find. I watched one child look for a picture of a tiger in an encyclopedia that did not have one. After a number of attempts he went away with a picture of a leopard, being a fairly close approximation! He had not thought to change to a different CD-ROM (available from the shelf by the computer). He had however, successfully overcome the practical difficulties of finding out where 'tiger' was, looking through 'cat family', and printing out the picture. Had he come to the library to look up 'tiger' in a book, would the teacher perhaps have more clearly told him that he had failed in his task?

Perhaps this calls into question what teachers should expect from the children when using these machines. I have observed other children failing to make successful searches for other reasons. When 'Mozart' failed to find any information about the composer, a child commented to me that there was obviously nothing in the computer about music. From our discussion it was apparent that the subject headings, which included 'Performing Arts' did not indicate Music to him.

Another interesting moment occurred when a child failed to spell 'Empire State Building' and so decided that 'Big', which he could both spell and knew described the building, would be a good word to try!

Each of these situations illustrates some of the problems that arise when children use material for which their mental classification systems do not match that provided by the CD-ROM publisher.

Part of the challenge of using these machines is to keep children on task, and to ensure that they access the information they need to find out. It is becoming clear that preparation before children access the machine by identifying words to try, or questions to be answered helps children be successful and serves to keep them focused on their tasks.

A further implication of the medium is that because such a small physical object holds so much data, children can begin to believe that it holds everything. Children seem to naturally conclude that if the answer to the question they are looking for does not appear on the screen, then either they have not looked properly, or nobody knows. Until there are a selection of different titles of the same type available to children it is going to be difficult to ensure that they appreciate that just as one book does not contain all the information about a particular subject, so one CD-ROM does not contain all that there is to know either.

## Browsing

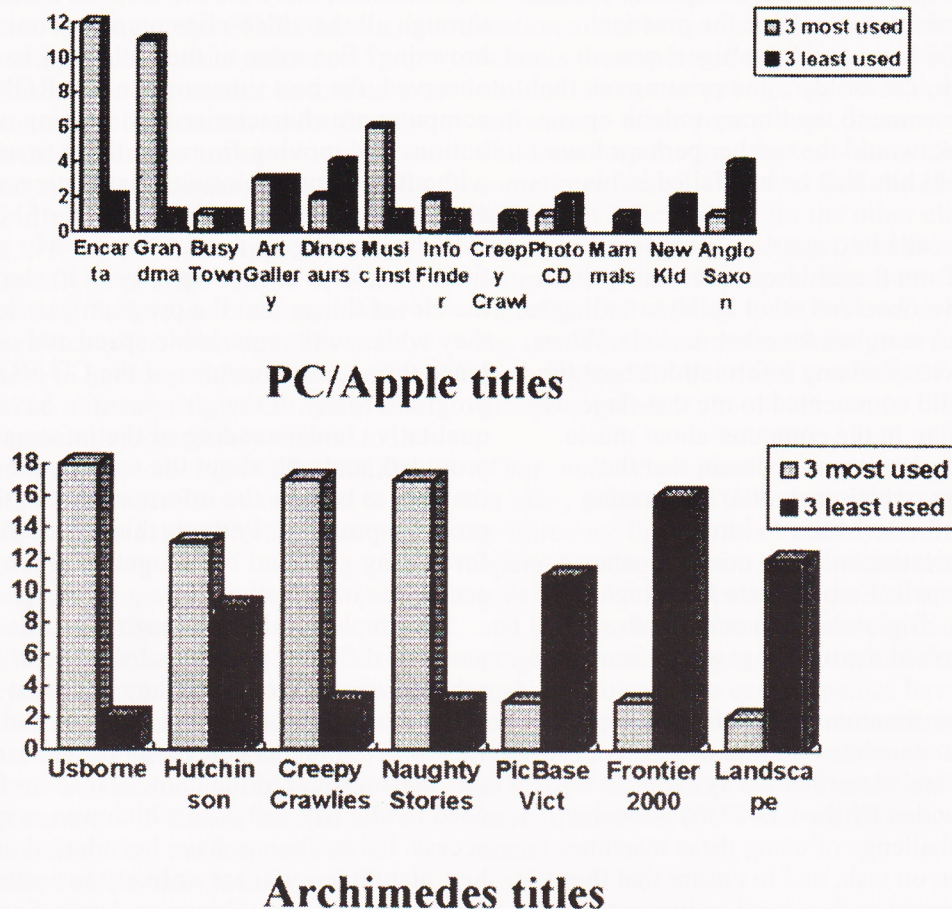
For many of the teachers, giving children time to browse was seen as important and valuable. Many CD-ROMs have powerful cross-referencing facilities and the 'go to the computer, find what you need, and go away' approach, might deal with the accessing issues, but perhaps not encourage an active interest in the subject. Nevertheless, there are difficulties. Does looking through all the video-clips on offer count as browsing? For some of the children I have observed, the best times on the CD-ROM computer are characterised by clicking on lots of buttons and moving from one thing to another, without perhaps exploring what is presented at all. I have also noted a different set of behaviours from boys and girls in this respect. My conversations with boys tend to have been to show me all the clever things that the program can do, and they whizz with remarkable speed and competence through the features of the CD-ROM program. Many of the girls seem to have a more qualitative understanding of the information provided, and talk about the sounds, the pictures, the film as well as the information that the program provides. Perhaps this has implications for mixing girls and boys together when they access the information.

The graphs on the next page illustrate the initial usage of different programs by schools. I asked schools which three titles they had used most, and which three least. Clearly a major initial concern was to get going as quickly as possible, and for this reason some of the choices made reflect the need to identify software which was easy to access. Other choices have been based on curriculum planning – you are unlikely to access a program about the Vikings or Anglo-Saxons until you are exploring that area in history. Sometimes the scale of the program seems to have been a disincentive to get into the program. As the graphs show, the range of programs available on the Archimedes as opposed to the PC and Apple platforms has significantly affected teachers' choices. In some cases programs appeared on the most popular list in some schools and, in others, in the least popular list. This reflects some of the issues described above.

## What we would like is . . .

The meetings with teachers identified three key materials that they felt would help them to enable their children to profit most from the CD-ROMs provided.

- An overview chart to illustrate which CD-ROMs have information that may be relevant in different topic areas being taught;
  - Worksheet resources to facilitate the use of the CD-ROM encyclopedias, both at the machine and in the classroom before or after accessing information;
  - Reviews of CD-ROMs published since the 1994 initiative, to identify materials that could most readily be purchased by schools.
- All of these areas are ones in which NCET is currently working, with a provisional outcome for these items during Summer Term 1995.



**Fig. 2.** *The initial usage of different programs by schools.*

## 10 years on . . .

We're starting from the wrong point. It's not 'I have a micro – what do I do with it?' but 'I have a problem – could a micro help?' The answer to this latter question may be 'yes' or 'no'.

**MICRO-SCOPE 15, Summer 1985**

# The future of assessment and learning in Higher Education (a scenario for the future)

**Roger Keeling**

*Newman College, Birmingham*

*'We must invest in the minds of people to create the wealth of the future' (Abbott, p. 4)*

Although this look into the future focuses on assessment in HE, the culture change implied has its roots in schools. Read on!

By 2015 we will have eliminated the thinking that compartmentalises everything into the 10 subjects of the National Curriculum. In 1995, as with the previous 100 years, the emphasis is still on the 3 Rs. By 2015 the emphasis will have changed to the 3 Ps:

- a) presenting and communicating
- b) processing information
- c) problem solving

*'Businesses-of-the-future seek not a docile workforce with a range of basic skills, as was the case in an industrial economy, but an enterprising, creative workforce of confident, self-starting, quick-thinking, problem-solving and risk-taking individuals who can operate in collaborative situations' (Abbott, p.4)*

The National Curriculum of 1995 is not geared to produce such individuals. Neither is the current educational system designed to accommodate radical change. However much we may sympathise with Abbott's vision it will not materialise without substantial promotion.

Consider just one area, that of *student assessment* in Higher Education. To many students this is the driving force which determines how they prioritise their work – the same applies at GCSE and 'A' levels. But this begs two important questions:

- a) *To what extent will students be fully utilising technology in learning?*

Students will still be studying for degrees in 2015 but far more students will be studying at home with only part of the academic year spent on the

campus. This does not imply learning in isolation – students will be able to communicate with tutors and peers through electronic mail, video conferencing etc. The time spent at the University will be for essential practical work that draws on expensive resources. This approach requires a major culture shift which must begin at school level. Abbott (p.10) comments:

*'It is essential that all pupils are increasingly encouraged to take an ever greater responsibility for their own learning, by being inducted progressively into self-learning/distance-learning techniques during Secondary schooling. . . . Sixteen or eighteen will no longer be the end of schooling; it has to become the launch date of the autonomous life-long learner.'*

- b) *What will be the basic philosophy underpinning the learning process?*

Assessment will still be a driving force in determining the priorities students give to different tasks – the quest for knowledge and understanding as a self-fulfilling activity represents a change of culture that many young people will have difficulty in coming to terms with; not surprisingly when they have been brought up in a society wedded to the concept of accreditation and accountability. However the form that assessment takes may be significantly different to that of today. One area that will have developed is that of expert systems. Within 20 years we will have seen a growth (and a demise) of Integrated Learning Systems. Research will show that ILS is a programmed approach to learning and supports existing (1990s) school-based learning systems.

*'Conventional school-based learning has found disciplined study an easy frame-work within which to structure learning, but it does not always lead to significant levels of understanding' (Abbott, p. 6)*

These days we can read a great deal in the media about the availability of cheap and reliable sensors for monitoring everything from air quality to mini Geiger counters. What if we could develop a reliable *lie detector*, integrated to an expert system as a means of validating the authenticity and authority of a student's work? As world wide webs develop it will become impossible for tutors to be knowledgeable about all the research papers and information sources that students may have access to. A lie detector is an Orwellian concept and will no doubt stir up objections on moral and ethical grounds, but how else can the key question be answered: 'To what extent is this assignment (ie. multi-media electronic presentation) a student's own work?' In fact, if we could answer the question reliably, then there may be no further need for formal examinations as we now know them (and this is the argument that could swing student opinion to accept the idea of lie detectors). After all, the purpose of exams is not to allow a student to present themselves to the examiner in the best light (otherwise why limit time, why restrict resources to just pen and paper); the real purpose is

*'At one level the pervasiveness of the technologies into so many aspects of our lives creates a need for 'technological literacy' which is becoming a fundamental requirement for the educated man. At another, we are witnessing the onset of a revolution in learning more profound than that unleashed by the printed book in the 15th Century. These technologies will transform the learning environment, releasing learning from the constraints of place and time' (Abbott, p. 10)*

Abbott, J: 'Learning Makes Sense' Published by the Education 2000 Trust, Corporation Offices, Broadway, Letchworth. Herts SG6 3AB

[illegible]

Writing helps us to think. It involves shaping and manipulating ideas, leading us in creative and sometimes unexpected directions. Writing can also help us to explore and express how we feel. Covering a page with words is like having a dialogue with oneself – a reflection. It can be enlightening, frightening, practical or loving. It is a means to sharing, knowing and keeping one's experiences.

[illegible]

# ART & IT

**Title:** SWINGING!

**Activity:** Computer Graphics in the style of Kandinsky (with particular reference to 'Swinging').

**Resources:** Painting program, + art books, postcards including 'Swinging' (available from the Tate Gallery), plastic shape tiles, coloured paper, scissors, glue.

**What to do:** Children will need previous experience of:

using the painting program you intend to use;  
the properties of 2-dimensional shapes;  
drawing simple shapes and using them in pattern making and collage work. (This is particularly important if they are to explore the space enclosed by the shapes – the 'negative' space.)

Begin by covering the life and work of Kandinsky in as much detail as you have time for. Children are naturally attracted to Kandinsky's use of bright colours and simple lines in works such as 'Contact' and 'Swinging'.

Once children have experienced a range of activities involving shapes they will be confident in creating their own Kandinsky. Encourage them to save their pictures on a work disc so that they can alter them, add a title or their name.


**IT capability:** Communicating information using pictures; saving, retrieving and processing information; developing mouse skills; exploring the functions of a painting program.

**Possible extension activities:** Using a programmable robot with pen attached, or a turtle graphics program to produce similar 'paintings'.

Extending the work to that of other artists, such as Malevich or Mondrian.

Communicating info ✓  
Info. handling  
Modelling  
Control  
Monitoring  
Apps & Effects

Experience level  
Beginner ✓  
Intermediate  
Experienced



IT Activity Sheet 1

# MATHS & IT

## Title: BOXES

**Activity:** Use a spreadsheet to find the largest box that can be made from a given size of paper.

**Resources:** Large sheets (A3) of centimetre square grid paper.  
Sellotape.  
Calculators.  
Computer with spreadsheet software.

**What to do:** Start with a square piece of paper of sides 20 cm. Make a lid-less box from the paper by cutting a 1 cm square from each corner and folding up the sides.

Repeat the procedure but this time cut a 2 cm square from each corner.

Continue in this way, cutting a bigger square each time. Measure or calculate the volume of the boxes and record in the table.

Size of corner square	Size of box			Volume of box
	Length	Width	Height	

Set up a spreadsheet to hold the same data (this may need to be done by the teacher in advance and you should consult the documentation for your software for how to do this). The spreadsheet needs four columns as illustrated and formulae should be entered into the final two columns, and repeated for every cell in the column, so that all the calculations are completed automatically. The required formulae are:

$$\text{Length} = P - 2S$$

$$\text{Volume} = \text{Length} \times \text{Length} \times S$$

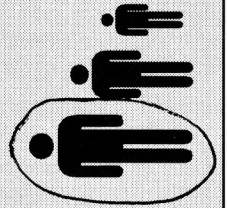
Size of paper	Size of corner square	Box length	Box volume

When using the spreadsheet, children should be able to work out what the computer is doing to calculate the values for the third and fourth columns.

The great beauty of the spreadsheet is that by simply changing the figure in the first column, the largest box which could be made from any size of paper can be seen instantly.

**IT capability:** Modelling (3c of Programme of Study for Key Stage 2).

Experience level  
Beginner  
Intermediate ✓  
Experienced ✓



Communicating info  
Info. handling ✓  
Modelling  
Control  
Monitoring  
Apps & Effects

IT Activity Sheet 2

# LANGUAGE & IT

**Title:** A MULTIMEDIA BOOK

**Activity:** Year 5/6 pupils make a multimedia 'book' for use by children in Reception/Year 1.

**Resources:** Computer with multimedia production software (eg *Genesis* for Archimedes, *Illuminatus* for PC, or *Hyperstudio* for Mac).

**What to do:** Year 5/6 children work in small groups (2–4), each group creating a single page of a multimedia production.

Initially an editorial group of able pupils is convened to set up the structure of the 'book' and agree upon content. This group starts by examining the books found in the Reception classroom library and selecting a type for their production. Possibilities might be a story; a poetry collection; or a picture book on colours, counting, the alphabet, sound blends, etc.

The editorial group plan the page sequence, creating a storyboard for the presentation. This general framework is made available to the whole class. The editorial group then go on to create the title page containing text, pictures, sounds and buttons as appropriate.

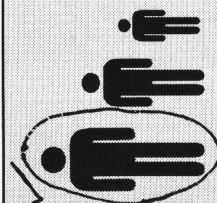
Over a period of perhaps a term, other groups then work on the production, each creating a page. If the 'book' is a continuous story then these will need to be created in sequence but for other formats pages may be created in any order and linked using buttons as required.

When all groups have created their page the editorial group return for a final check before compiling the production into a usable 'book'. Year 5/6 pupils are then paired up with children in Reception/Year 1 to 'read' the book together.

**IT capability:** Communicating and Handling Information (2a of Programme of Study for Key Stage 2).

**Possible extension activities:** More paired reading work using ordinary books or commercially produced multimedia CD-ROMs such as *Just Grandma and Me*, *Naughty Stories*.

Experience level  
Beginner  
Intermediate  
Experienced ✓



Communicating info ✓  
Info. handling  
Modelling  
Control  
Monitoring  
Apps & Effects

IT Activity Sheet 3

Have you seen the latest

# MICRO-SCOPE?

It contains articles on:

The challenge of the talking word processor

*English Coordinator  
Year 1  
Year 2  
Reception*

A parents' computer funday

*Head Teacher  
IT Coordinator*

Newspaper day

*Head Teacher  
Deputy Head  
English Coordinator  
IT Coordinator  
Art Coordinator*

Report on initial findings from schools in the  
Primary CD-ROM initiative

*Head Teacher  
Deputy Head  
IT Coordinator*

Recent IT programs

*IT Coordinator  
Year 1*

Ideas for creative work with art packages

*Art coordinator  
IT Coordinator*

Circulation List: IT Coord ☐ Head ☐ Deputy Head ☐ Science Coord ☐  
English Coord ☐ Art Coord ☐ Reception ☐ Yr 1 ☐ Yr 2 ☐

# Some recent ideas from the chalkface

**Jane Chappell**

*IT Coordinator and Year 1 Teacher, Milborne Port CP School*

## Computer work stations

As a Year 1 teacher who has recently acquired an Acorn A3020 computer, I have been keen to create a stimulating and non-threatening computer environment. I decided to combine a writing and computer area to produce an area of the classroom where the children could go to practise their writing skills.



**Fig. 1.** *Computer area.*

From the beginning I actively involved the children. They brought in pictures of computers from home, printed labels and designed the displays. We labelled each part of the computer to develop their understanding of the purpose of the various parts of the computer. For example, keyboard, mouse, monitor, etc.



**Fig. 2.** *Computer station: Adam and Philip using Talking Stories.*

We used *Flare* to create a variety of purposeful displays. Our first task was to write a word list which the children would be able to use to help them with their spelling. They enjoyed doing this and only needed a little support from Mrs Biss (GA).



Fig. 3. Writing area.

In order to familiarise the children with the keyboard we made a cardboard copy which we displayed on the wall. The children designed their Easter cards on the computer, and we printed them so they could take them home. Throughout the term we have used *Flare* for all of our printing in order to develop the children's confidence in using the computer. The screen in *Flare* is very bright and colourful and seems to interest the children. We have used it for word processing as well as art work.

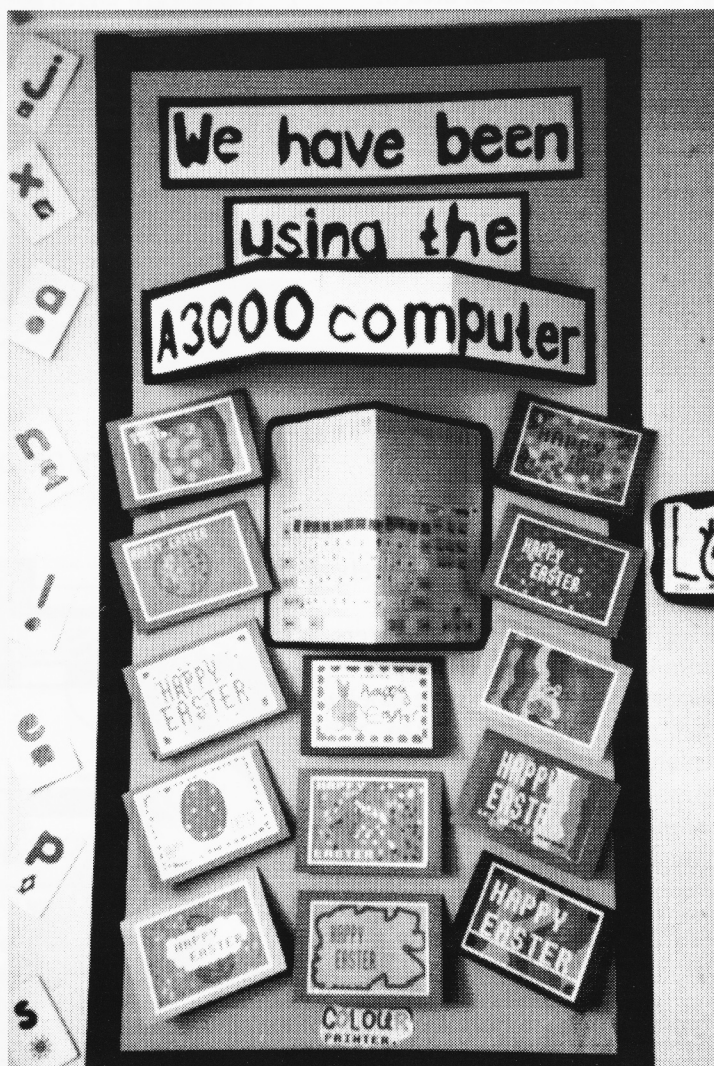


Fig. 4. Easter cards printed using *Flare*.

## Organisation of software

In order to facilitate the delivery of the IT curriculum it is important that the teachers have easy access to all of the available resources. For this reason I have developed 'Program Packs'. I bought a number of plastic zip wallets and used *PenDown* to print appropriate labels. Each pack contains:

- A label stating the name of the program and the intended age range;
- Backup copy of disc. Original discs are kept in the central resources;
- Documentation for the programs including any appropriate help sheets.

In addition I have provided each computer work station with a range of resources:

### 1. *Documentation box*

A magazine plastic box containing computer manuals and handbooks as well as any program packs that the teacher is currently using.

### 2. *Disc box*

A disc box containing the discs that the school has site licences for.

### 3. *Mouse guide*

A laminated sheet showing the various functions of the mouse for easy reference by teachers, children and parent helpers.

### 4. *Mouse mat*

In order to protect the mouse and provide easier movement I have recently bought mouse mats.

### 5. *IT information*

I have made a booklet for each teacher to keep by the computer. It includes:

- (a) copy of the school's IT policy
- (b) copy of the IT National Curriculum
- (c) list of the school's current hardware.

The rest of the IT resources are kept in a central resource area which contains control technology and various program packs.



Fig. 1. Computer resources.

## Post Dearing record keeping

After attending recent post-Dearing meetings I became aware of the need to re-evaluate the current delivery of the IT curriculum within both KS1 and KS2. Much of the work currently being completed adequately fulfils NC guidelines. However as a staff we need to highlight the children's progress in more detail. In order to avoid a substantial increase in teachers' already heavy workload I am considering implementing a simple NC record sheet which will remain in the

children's profiles until they leave the school. At present I have outlined a plan for KS1 only to see how effective it will be.

Each teacher will use the terms:

J = just  
C = comfortable  
S = secure

Teachers can also add additional comments for the less/more able child.

### INFORMATION TECHNOLOGY: NATIONAL CURRICULUM RECORDS



CHILD: \_\_\_\_\_

ATTAINMENT TARGET LEVEL DESCRIPTIONS		R	1	2	NOTES
L E V E L  1	- Pupils use IT to assemble text & symbols to help them communicate ideas				
	- They explore information held on IT systems, showing an awareness that information exists in a variety of forms				
	- They recognise that many everyday devices respond to signals & commands, & that they can select options when using such devices to produce different outcomes				
L E V E L  2	- Pupils use IT to help them generate & communicate ideas in different forms, such as text, tables, pictures & sound				
	- With some support, they retrieve & store work				
	- They use IT to sort & classify information & to present their findings				
	- Pupils control devices purposfully & describe the effects of their actions				
	- They use IT based models or simulations to investigate options as they expolore aspects of real & imaginary situations				
L E V E L  3	- Pupils use IT to generate, amend, organize & present ideas				
	- They use IT to save data & to access stored information, following straightforward lines of enquiry				
	- They understand how to control equipment to achieve specific outcomes by giving a series of instructions				
	- They use IT based models or simulations to help them make decisions, & are aware of the consequences of their choices				
	- They describe their use of IT, & its use in the outside world				

KEY: J-just    C-comfortable    S-secure

### Cross-curricular work

My aim is to encourage the teaching of IT through the other nine subjects as the majority of software can be adapted to be used to extend learning in a particular curriculum area, for example, the use of a database to record the findings in scientific investigative work. Each

teacher in the school has easy access to the IT curriculum as I have reproduced both the Statement of Attainment and the Programme of Study for KS1 on one sheet of laminated paper which is kept by every computer. I am hoping that teachers will become more familiar with the curriculum as they will not have to read the whole of the curriculum document.

#### INFORMATION TECHNOLOGY NATIONAL CURRICULUM



#### KS1: PROGRAMME OF STUDY

Pupils should be taught to use IT equipment & software confidently & purposefully to communicate & handle information, & to support their problem solving, recording & expressive work.

ATTAINMENT TARGET LEVEL DESCRIPTIONS		KS1 PROGRAMME OF STUDY
L E V E L  1	- Pupils use IT to assemble text & symbols to help them communicate ideas	<b>1. PUPILS SHOULD BE GIVEN OPPORTUNITIES TO:</b> a. use a variety of IT equipment & software, including microcomputers & various keyboards, to carry out a variety of functions in a range of contexts; b. explore the use of computer systems & control technology in everyday life; c. examine & discuss their experiences of IT, & look at the use of IT in the outside world.
	- They explore information held on IT systems, showing an awareness that information exists in a variety of forms	
	- They recognise that many everyday devices respond to signals & commands, & that they can select options when using such devices to produce different outcomes	
L E V E L  2	- Pupils use IT to help them generate & communicate ideas in different forms, such as text, tables, pictures & sound	<b>2. COMMUNICATING &amp; HANDLING INFORMATION</b> Pupils should be taught to: a. generate & communicate their ideas in different forms, using text, tables, pictures & sound; b. enter & store information c. retrieve, process & display information that has been stored.
	- With some support, they retrieve & store work	
	- They use IT to sort & classify information & to present their findings	
	- Pupils control devices purposefully & describe the effects of their actions	
L E V E L  3	- They use IT based models or simulations to investigate options as they explore aspects of real & imaginary situations	<b>3. CONTROLLING &amp; MODELLING</b> Pupils should be taught to: a. recognise that control is integral to many everyday devices; b. give direct signals or commands that produce a variety of outcomes, describe the effects of their actions; c. use IT based models or simulations to explore aspects of real & imaginary situations.
	- Pupils use IT to generate, amend, organize & present ideas	
	- They use IT to save data & to access stored information, following straightforward lines of enquiry	
	- They understand how to control equipment to achieve specific outcomes by giving a series of instructions	
	- They use IT based models or simulations to help them make decisions, & are aware of the consequences of their choices	
	- They describe their use of IT, & its use in the outside world	

# Ideas for creative work with art packages

**Tricia Neal**

*Buswell's Lodge Primary School, Leicester*

These ideas apply to most art packages available. Some are more suitable than others for individual packages.

It is important at all stages to ensure that the children save their work regularly either with adult help or by themselves. They do not have to

remember how, since instruction sheets can be made available, although there is the expectation that older children should save automatically. Inevitably children will decide that they do not like what they have done and will be pleased to see that they can go back to a previous stage.

## Greetings

### A Special Card!

Cards can be produced for all occasions. There are programs such as Sherstons 'Christmas Allsorts' that make things easy for you. The approach will vary according to stage of development.

For younger children screens with ready made outlines can be set up so that they can use the facilities of the art package to finish and make it their own work. This could include outlines of Christmas trees etc., hearts, Easter eggs, Rangoli patterns, Birthday cakes, flowers and many other simple ideas that will be appropriate.

As the child becomes more competent they can produce their own picture and greeting of increasing complexity taking time to review what they have done, save work regularly, recall the work to change it in the light of further thought.

Initially work will be printed out with the help of the teacher and mounted on card but the child will soon be ready to print their own work and make it into a card with a greeting inside and eventually using a wordprocessor or D.T.P. package will produce a card all in one piece on the computer.

A greetings theme could develop into invitations to a party, replies, a menu and thank you letters.

## Modern Art

Art work of the last 200 years can be looked at and the children could use the facilities offered by an art package to:

- Attempt to create a picture.
- Produce a picture in the style of the artist e.g. Picasso, Miro.
- Recreate the colours and textures used in a picture e.g. Monet's water.
- Imagine what was going on outside the picture we can see.

Children can make a small motif that can be made into a repeated pattern by the package. This could be a design for curtain fabric, dress fabric, wallpaper, shopping bags, etc. The fill function could then be used to try out different colour combinations.

Discussion could then follow about the most suitable colour ways for the task and a final design chosen. This could be a group or class activity and the original design could be produced by the teacher working with a group of children following their instructions. The children could then try different colours by themselves and report back.

## Repeating Patterns

## Repeating Patterns

## Repeating Patterns

## Repeating Patterns

## Repeating Patterns

## Backgrounds

There are many facilities in an art package that allow you to create interesting background patterns. Small poems and pieces of text could be placed on these backgrounds using the text option. The placing of the text will need planning because art packages are not wordprocessors and often once the text is in position there is no way of moving it.

Patterns may be created, printed out and used as part of collage work, producing images similar to those of Eric Carle.

## Borders

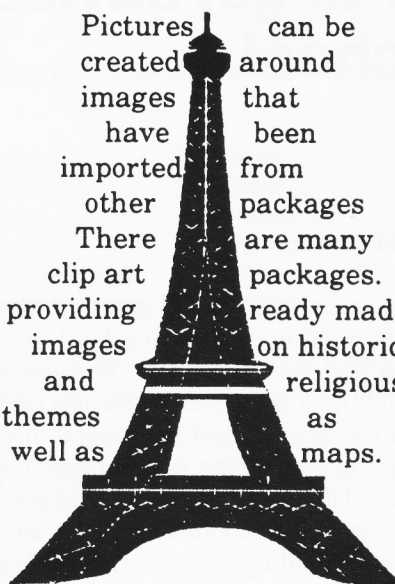
With care and concentration borders

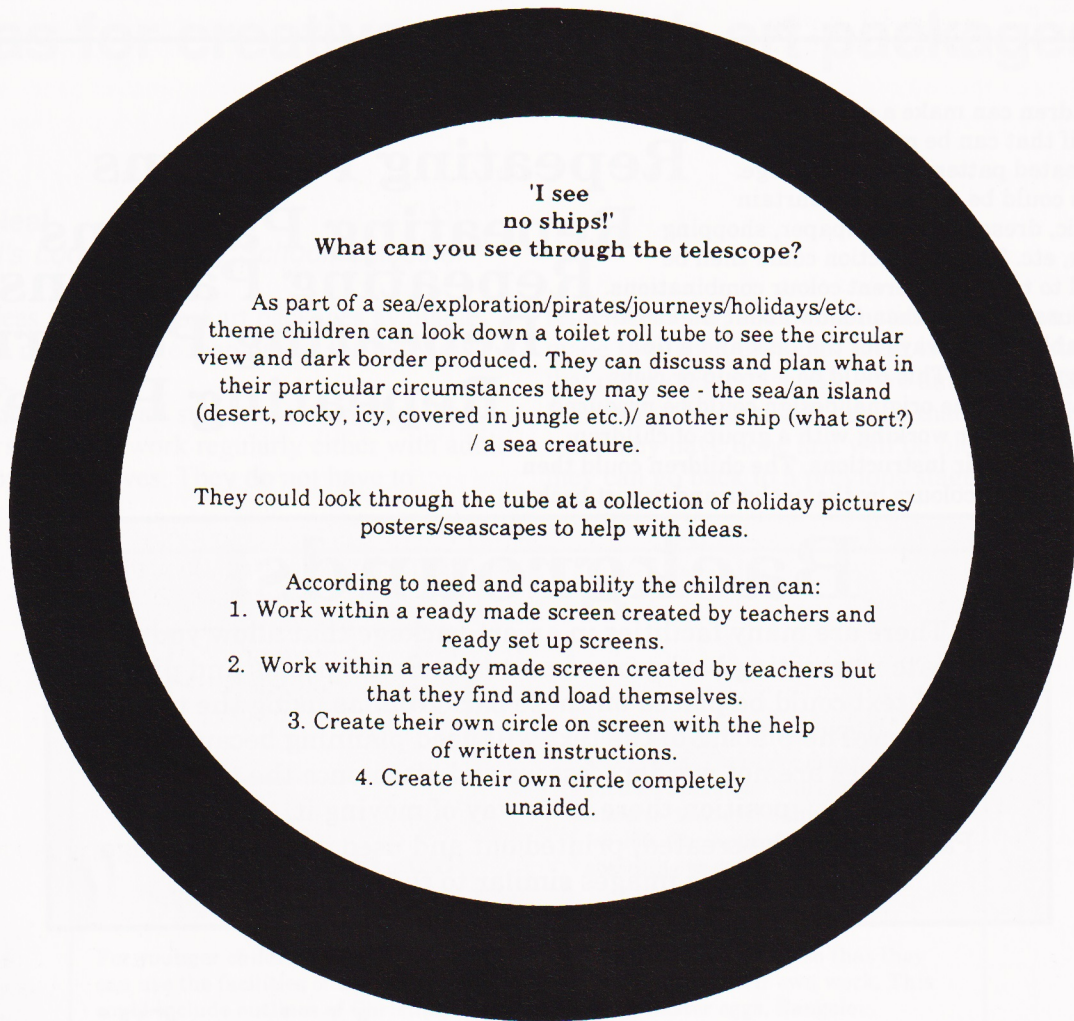
can be created using the shapes facilities in many packages.

These can be printed out and used to handwrite inside or text placed inside them on screen.

## Using Clip Art

Pictures can be created around images that have been imported from other packages. There are many clip art packages. providing ready made images on historical and religious themes as well as maps.





## How to get advice on using the Internet in school

### Doug Weller

If you have any sort of e-mail access to the Internet and are interested in using it in school, you need to join the mailing list Uk-schools. This list is for teachers and other interested in the use of the Internet in UK schools and for general discussion about anything concerning international classroom connections. This includes project and penpal requests, information about WWW, ftp and gopher sites and other mailing lists. (Sorry if this is just jargon to you; watch out for an article in the next issue explaining it all!)

To subscribe to it, send a message to:

mailbase@mailbase.ac.uk

subject: anything or blank

Text of message: join uk-schools firstname  
lastname

If you have an automatic signature, put the word STOP on a line on its own before your signature.

If you have access to newsgroups or to a Fidonet board that carries them, also look at the newsgroup Uk.education.teachers or, on Fidonet, UKSCH\_Teach or UK Teachers.

# MAPE matters

## Treasurer's Report for 1994

The membership subscription remains at £15 for the fifth year. Income from subscriptions is lower due to a small drop in membership. The average membership for the year was about 4200. Income from our investments is also a useful addition despite low interest rates during 1994. Most of our assets are with the Halifax Building Society. Sales revenue has increased dramatically over the year, partly due to software sales and partly due to bulk orders from NCET and sponsorship from Acorn. These extra sources of income must be set against a two-fold increase in publication costs.

Publications and software are our main source of contact with the membership and it is not unreasonable to spend a large amount on them. It is also pleasing to note that continuing high sales show the value that teachers place on MAPE productions. The running costs for MAPE are again lower than the previous year. This is a result of reorganisation creating fewer large meetings. The only new office equipment purchased was a replacement printer for the treasurer.

Customs and Excise visited in February 1994 and concluded that the books were in order regarding VAT and that our reclamation of VAT from 1989 was correct. Our VAT liability for 1994 was balanced by our claims.

Inland Revenue continues to allow interest to be received gross although this is reviewed annually.

The balance sheet for the year shows only a small loss (£776) although it was pessimistically thought that the figure would be much higher. We entered the current year with healthy reserves which bodes well for our financial review in June. It is with the strength of these reserves that MAPE is able to spend over £17 per member for a subscription of £15.

Over a quarter of the subscriptions are now collected by direct debit which, once set up, makes administration much easier and more cost effective. We still have some problems with double payments which are invariably due to human error at the banks — e.g. not cancelling standing orders when the change is made to direct debit. This is usually sorted out quickly with the calm efficiency of Val Siviter at the MAPE office. She is only a phone call away.

Very few professional organisations, similar to MAPE, can give such value for money on a subscription of just £15 and if you are a personal member, remember that you can even claim tax relief making it just £11.25.

K.A. Whiting  
(National Treasurer)

## Report of the Executive for the Year ended 31 December 1994

The executive present their annual report with the financial accounts for the charity for the year ended 31 December 1994.

### *Details of charitable status and constitution*

The charity is registered with the Charity Commissioners for England and Wales, Registration No. 292898. It was established under a constitution of 3 April 1982 which was subsequently amended on various dates, the latest being 26 March 1994. The aim of the charity is to advance education by promoting and developing the awareness and effective use of micro-electronics as an integral part of the philosophy and practice of Primary Education.

### *Review of the financial performance of the charity*

A summary of the deficit of income over expenditure is given on page 3 of the accounts. The executive consider the state of affairs to be satisfactory. During the year the charity has benefited from the considerable efforts of previous years in building up its range of publications and knowledge. It is hoped that this will continue in the future.

### *Executive*

The following were members of the executive during the year:

Chairman:	L. Watson
Vice-chairman:	W. Urwin
Secretary:	A. Galbraith
Treasurer:	K. Whiting
Microscope Editor:	C. Robson
Business Manager:	R. Keeling

They are appointed from the council, who in turn are elected from the members of each of the charity's regions.

Signed on behalf of the executive on 31 March 1995.

L Watson  
Chairman

K. Whiting  
Treasurer

### Report of the Auditors to the members of Micros and Primary Education

We have audited the financial accounts on pages 3 to 5 which have been prepared under the historical cost convention.

#### *Respective responsibilities of Executive and Auditors*

The charity's executive are responsible for the preparation of the financial accounts. It is our responsibility to form an independent opinion, based on our audit, on those accounts and to report our opinion to you.

#### *Basis of opinion*

We conducted our audit in accordance with Auditing Standards issued by the Auditing Practices Board. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial accounts. It also includes an assessment of the significant estimates and judgments made by the executive in the preparation of the financial accounts, and of whether the accounting

policies are appropriate to the charity's circumstances, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial accounts are free from material misstatement, whether caused by fraud or other irregularity or error. In forming our opinion we also evaluated the overall adequacy of the presentation of information in the financial accounts.

#### *Opinion*

In our opinion the financial accounts give a true and fair view of the state of the charity's affairs as at 31 December 1994 and of its deficit of income over expenditure for the year then ended and have been properly prepared in accordance with Statement of Recommended Accounting Practice No. 2 related to charities and the requirements of the constitutions establishing the charity dated 1 April 1985 and subsequent amendments thereto up to 20 April 1993.

Harrison Beale  
Registered Auditors

31 March 1995

### Income and Expenditure Account For the Year Ended 31 December 1994

	1994		1993	
	£	£	£	£
<b>INCOME</b>				
Subscriptions		51,269		58,966
Sales of licences, tapes and magazines		15,293		3,791
		<u>66,562</u>		<u>62,757</u>
Bank interest		5,681		4,682
		<u>72,243</u>		<u>67,439</u>
Deficiency on conference		(1,596)		(5,034)
		<u>70,647</u>		<u>62,405</u>
<b>LESS EXPENDITURE</b>				
Publications	44,194		21,592	
Regional expenses	1,881		3,146	
Council expenses	10,640		13,416	
Administrative expenses	10,310		11,302	
Advertising	1,057		150	
VAT	—		(355)	
Bank charges	1,106		1,107	
Direct debit charges	662		959	
Miscellaneous	235		—	
Depreciation of office equipment	1,338		1,695	
		<u>(71,423)</u>		<u>(53,012)</u>
(Deficit)/Surplus of income over expenditure for the year		<u>(776)</u>		<u>9,393</u>

## Balance Sheet as at 31 December 1994

	Notes	1994	1993
		£	£
<b>FIXED ASSETS</b>			
Office equipment	1	4,013	5,086
<b>CURRENT ASSETS</b>			
Debtors and prepayments		5,577	5,053
Bank current account		13,576	20,394
Bank deposit account		7,852	96,305
Premium extra account		84,976	—
Instant extra plus account		10,158	—
Cash in hand		186	567
		<u>122,325</u>	<u>122,319</u>
<b>CURRENT LIABILITIES</b>			
Creditors and accruals		(745)	(1,036)
		<u>121,580</u>	<u>121,283</u>
		<u>125,593</u>	<u>126,369</u>
<b>REPRESENTED BY</b>			
Accumulated fund at 1 January		126,369	116,976
(Deficit)/surplus of income over expenditure for the year		(776)	9,393
Accumulated fund at 31 December 1994		<u>125,593</u>	<u>126,369</u>

## Financial Accounts for the year ended 31 December 1994

<b>1. FIXED ASSETS</b>	Office
	Equipment
<b>COST</b>	£
At 1 January 1994	11,113
Additions in year	265
At 31 December 1994	<u>11,378</u>
<b>DEPRECIATION</b>	
At 1 January 1994	6,027
Charge for year	1,338
At 31 December 1994	<u>7,365</u>
<b>NET BOOK VALUE</b>	
At 31 December 1994	<u>4,013</u>
At 31 December 1993	<u>5,086</u>

## 2. Depreciation

Depreciation is charged on a reducing balance basis at the following rates:

Office equipment 25%

## Regional news

### Chiltern

Attendance at our last session on 20 May on CD-ROMs was down a little, maybe due to the impending Cup Final. Ruth Allanach from South East Region led the session with a wealth of information gleaned from using CD-ROMs with teachers and children. There was ample time to experiment with a variety of CD-ROMs on various machines and everyone went home happy.

We will follow the same format (Speaker then Hands-on) on 7 October, when the subject will be 'Art Packages'. Please come and bring a friend. Ring me on 01923 823411 for details or if you have any suggestions of ideas for future sessions.

Betty Lumley

### Eire

Regular meetings and workshops were held during the Spring term. Topics included Trouble shooting and Upgrading, Multimedia, Electronic mail, and a lecture on the Future of IT in Primary Education.

A computer course was held O'Keefe Institute, Newmarket during March and April. Topics included Computer maintenance, Wordprocessing, Logo and Databases.

### Scotland

There have been a variety of MAPE workshops held locally all over Scotland this term. These local events have made use of the most widely available platforms and most popular applications which address the 5-14 Curriculum. Here are a few to give you an idea of the sort of activities we are promoting:

*Lanark Division:* Making overlays for the Concept Keyboard on the Archimedes.

*Central Region:* *The Lighthouse Keeper's Lunch*: a package for the BBC devised for our last Scottish Conference. It is based on the well-known book and adopts a thematic approach, demonstrating integration of IT into Environmental Studies.

*Lothian Region:* New developments at Apple - *Amazing Animations*, *ClarisWorks*, CD-ROM and *Linkword*, and also the *Lighthouse Keeper's Lunch* on the BBC.

*Tayside Region:* Making files for *Junior Pinpoint*; an introduction to *Full Phase*, *MyWorld2*

and again the *Lighthouse Keeper's Lunch*.

*Borders:* MAPE Open Evening. Members had the opportunity to look at a wide variety of software for the A4000, some software developed in the region designed to help you get started with spreadsheets, and try out CD-ROMs on Acorn, PC and Apple.

Members will hear our plans for next session once they have been finalised but we do have one important date for your diary. The 1995 Scottish Conference is to be held in Fife on 18 November. All members will get their booking form during the Autumn term. You are recommended to apply as soon as possible to ensure a place.

Finally if you have MAPE activities going on in your region that have not been mentioned or if you are interested in starting a local group please do not hesitate to get in touch with either of the Scottish Representatives listed at the back of *MICRO-SCOPE*. The Scottish Committee are keen to support you in any way we can.

Theresa Mungall

### Southern

In March the Dorset group of the Southern Region held a workshop on 'Databases'. We looked at *Junior Database*, *DataSweet* and a public domain shareware database called *!Powerbase*. This was given as a free disc and although the first copy had some running problems these were eventually put right!

A meeting was held on 17 June at West Dorset Professional Centre, entitled 'Adventure Games' and looking at discs included in the first NCET CD-ROM pack, *Genesis* adventures, how to write adventures in Logo, and old favourites like *Granny's Garden*, now on CD-ROM. A free disc was available at this meeting.

Future events include:

11 November 1995 at Malmesbury Park First School, Bournemouth: '*My World* in the Palm of Your Hand'. After attending a MAPE Conference '95 workshop on how to make *My World* screens, we felt it would be useful to pass on this information to colleagues. We are hoping to have an exhibition of available *My World* screen discs.

Spring Term 1996 at WDPEC, Weymouth, to look at and use the Acorn pocketbook and other laptop machines (date to be fixed later).

If anyone in any part of the region would like

help, either financial or organisational, to get a local group going, please contact me at the address inside the back page.

John Bennett

### South Eastern

I'm afraid that there's no news from the South East region this term. Despite enormous expenditure of effort and money in trying to establish an active group – I seem to have failed.

If there's anyone out there in the London area who would like to contact me about getting things going, please get in touch!

Ruth Allanach

### South West

The summer term is normally a quieter term as we leave colleagues more time for barbecues and writing the occasional report.

Sessions this summer are focused on preparing for OFSTED. Two twilight sessions were held in May, and a one-day course is planned for Friday 7 July. The informal surgery sessions are still running when members phone us with their queries and visits are arranged. An information sheet will be in schools soon after the

holidays, for the events in the new academic year.

Richard Marsh

### West Midlands

In February we held a successful CD-ROM morning at Newman College for well over 40 people. Anne Sparrowhawk, the NCET field officer for the Primary CD-ROM Project, gave an enthusiastic and perceptive keynote talk about the current situation, backed up by some interesting anecdotes. In fact, we received some very positive comments about the whole morning so we plan to repeat it sometime in the Autumn term.

Meetings in the Summer term have been held on 'Handling Information in the New Curriculum' and a repeat of the favourite 'Models, Micros and Movement'. The next meeting is 'Make a Day of IT', also at Newman, but this time a whole day on a whole variety of IT-related topics, with talks, demos and workshops. All that and the AGM too!

During the autumn term, two events have already been planned: on Tuesday 19 September at Blackenhale Junior School, an evening session (in conjunction with the British Computer Society) 'A Day in a Primary Classroom'; and on Saturday 30 September at Newman College, a morning session on 'Data Handling'

Looking forward to seeing you there.

Barry Wake

## Reviews

### Title: **Family Exchange: A European topic for 10–14 years**

Author: Tricia Watterson, Senior Lecturer, Strathclyde University

Publisher: Jacquetta Megarry, Landrick Lodge, Dunblane FK15 0HY (Tel: 01786 824696; Fax: 01786 825090)

Cost: £28 + VAT

Special offer: bundled with free 1994 *Europe in the Round* CD-ROM (specify Mac or Windows) worth £150, while stocks last.

*Family Exchange: A European topic for 10–14 year olds* is a computer-assisted topic based on the database *Europe in the Round*, an information system on study, work and background information on the 12 countries of the European Community. It

is available for Macintosh or Windows 3. Six other modules are available for the secondary phase but this has been written with upper primary/lower secondary children in mind.

Having been involved in the production of the MAPE Special *Into Europe*, I was interested to see what this pack had to offer.

The *Europe in the Round* CD-ROM was easily installed with detailed instructions given in the accompanying booklet. Navigation through the screens is simple – just point and click the mouse. Icons are clear, with standard buttons on most screens to 'Go back', obtain 'Help' on the meaning of the icons, or to 'Return' to the initial screen. Any screen can be printed by simply pressing Ctrl-P, with options to print other pages too. There is an option to preview screens you wish to print out – a helpful feature for primary children. Other useful features include the facility to 'Make a Collection' of screens that could be used for presentations (including slide shows) and specific teaching, and the opportunity to add information and update currency exchange rates.

I spent a very relaxed couple of hours just ‘browsing’ through the different information – comparing different systems of education, looking through the gazetteer at places I had visited and ‘becoming familiar’ with those yet to visit, studying information about roads and railways, and noting the practical advice given on working and living in the countries.

The *Family Exchange* pack includes: a teacher booklet which gives the six stories that stimulate the topic, very detailed teachers' notes including issues of management and organisation, pupils' notes and practical reference material including blank maps; and a set of loose photocopiable master worksheets for the pupils.

I particularly like the way the topic has been introduced through a selection of stories that lead to a variety of cross-curricular activities, in which the computer is used as a valuable resource to encourage children to be discriminating about the

information they are searching, and to learn important skills in handling information. Work could be developed by allowing children the 'freedom' to explore different countries for exchange visits after they have researched the Netherlands and Belgium. Another important feature is that careful consideration has been given to supporting 'away from the computer' activities – a real boost for teachers when planning the topic.

This pack, used in conjunction with the database *Europe in the Round* seems a motivating and thorough way for upper primary and lower secondary pupils – and teachers – to develop their knowledge and awareness about the European Community and its member states. A very comprehensive pack that would prove to be a valuable resource for both phases.

Anne Farr  
Newman College

[illegible]

## 10 years on . . .

The time for the Acorn/BBC micro and the 480Z has passed, although they will still serve many valid educational purposes. We are now in the era of the 16 bit micro. If we believe that education should use to its advantage the latest technology, we must also recognize that we can't sit back and be content with what has already been achieved.

**MICRO-SCOPE 15, Summer 1985**

[illegible]

## MAPE National Committee Members 1995–1996

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#### LEAs

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# MICRO-

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**29th - 31st March 1996**

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