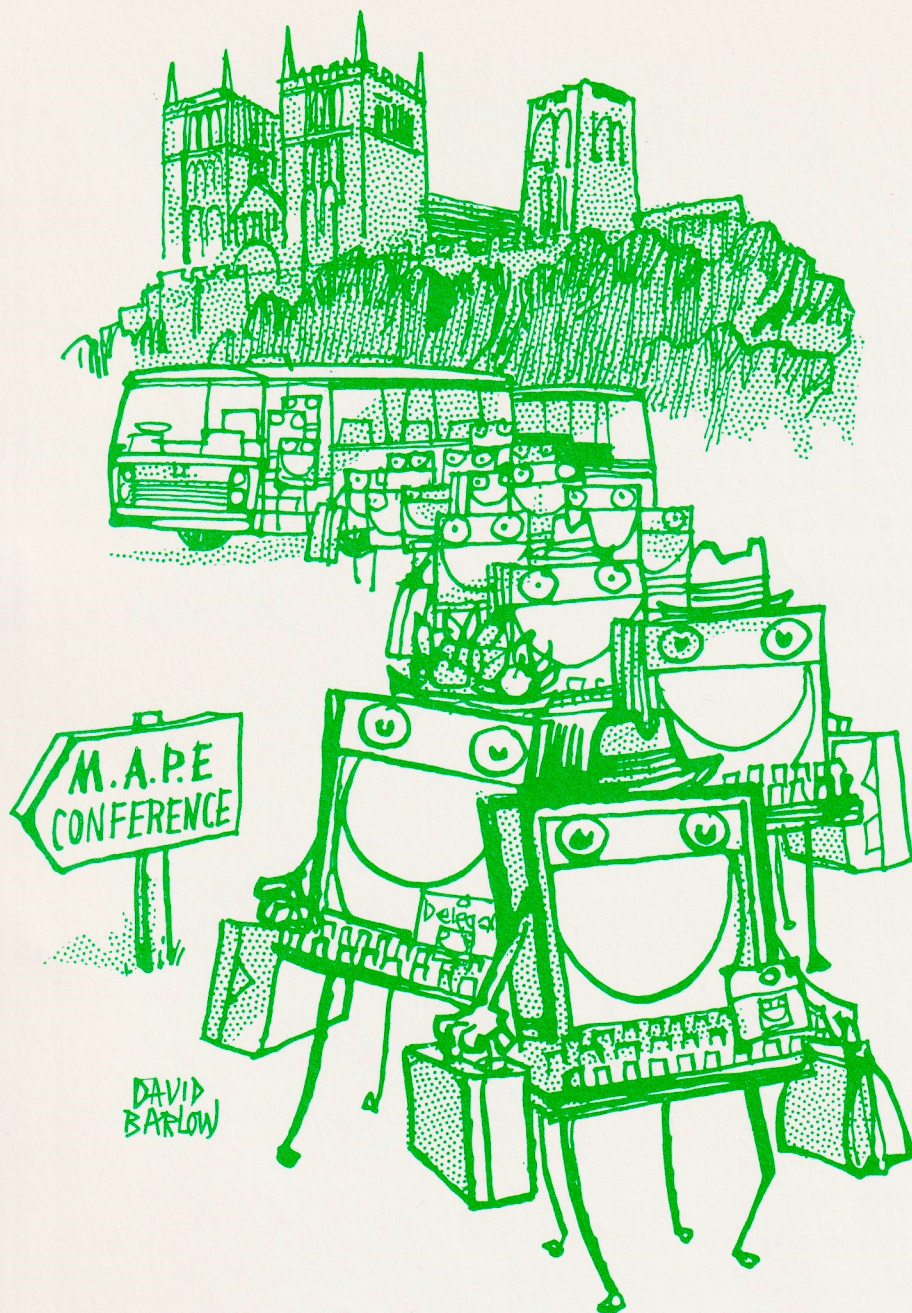


23

SPRING 1988



MICRO SCOPE

Newman College with MAPE

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Owing to unforeseen circumstances, *Junior Mike Crow* will not be making an appearance in this issue.

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MAPE Matters

MAPE Conference 1988

This year's MAPE Conference will be held at Grey College, Durham, from Friday 25 March (evening) until Sunday 27 March (mid afternoon). The residential fees are £70 (MAPE members £62); non-residential fees are £50 (MAPE members £42); and fees for day delegates (Saturday only) are £22 (MAPE members £20). There is a booking form included with this edition of *MICRO-SCOPE*. If you would like further details please write to David Whitehead, Holly Farm, Lench Road, Waterfoot, Rossendale, Lancs.

MAPE Conference 1989

If you are currently sorting out your GRIST requirements please bear in mind next year's conference. It will be held at Caerleon College, Newport, Wales, from Wednesday 29 March until Friday 31 March 1989. The conference is usually held on the weekend preceding Easter, but due to the fact that Easter is extremely early next year, the conference will be held in the week after Easter. The fees are not finalised yet but they will be a maximum of £70 for residential places for members of MAPE.

Copyright

Please remember that MAPE software is copyright. You are entitled to a copy of any software which is distributed while you are a member. You are also entitled to any MAPE software for which your LEA has purchased a licence. You are not entitled to provide other people with copies of software sent to you as an individual member. We are concerned to find that we are receiving a number of requests for documentation only (where did the software come from?). These will only be fulfilled if the request is accompanied by an original MAPE disc (which will be returned). If you obtained your copy of the software from your LEA then please contact them for the documentation.

MAPE 5

This year MAPE is sending out a resource pack on Owls. One copy will be sent, at no charge, to each member of MAPE. The packs will be distributed between mid-February and mid-March. The pack will also be available to non-members of MAPE at a cost of £12.50 each. (Discounts will be available for bulk purchases of more than 20 packs.) Those people who subsequently join MAPE will be able to buy the pack at the reduced rate of £7.50. MAPE membership is currently £12.00 per year.

More about money . . .

In this edition of *MICRO-SCOPE*, Keith Whiting has described how MAPE's money is being spent. Those people who were members for the year 1986-1987 received the following: MAPE Tape 4, *MICRO-SCOPE*s 20, 21 and 22, the Logo 'Special' and the Transition document. MAPE provides tremendous value for money. This year you will be getting *MICRO-SCOPE*s 23, 24, 25, the Owl Resource Pack, and a Writing 'Special'. Members also pay reduced fees at the National Conference. In addition members have access to a range of events organised at a local level. If you would like to become more involved with MAPE please contact your Regional Representative (listed inside the back cover).

What an honour!

We would like to offer our congratulations to Anne Liddle (Secretary and stalwart worker for MAPE in addition to being a headteacher in Cleveland) who was awarded an MBE in the New Year's Honours.

Letters

In the Autumn 1987 edition of *MICRO-SCOPE*, Linda Johnson gave us a policy document for the use of computers in a junior school. I found her article interesting reading but I felt the document lacked a little on detailed aims and objectives. Here at Long Sutton County Primary School we have a new school building and our resources are considerably greater. We have nine classes (from reception to 4th year junior) and eight complete computer systems – BBC B or Master 128, colour monitor and disc drive. We also have two Citizen 120 D printers and an A4 concept keyboard. It is in this area of peripherals that we hope to *add to* our hardware in the next year with the purchase of two more printers and another concept keyboard.

Linda Johnson's underlying philosophy and method I would endorse completely, but I would offer my own school's aims and objectives to put 'flesh' on the bones for those of us who have moved beyond the two micros and nine classes situation. Linda Johnson is working in the here and now of many schools. Perhaps Long Sutton County Primary School's aims and objectives can point the way for the future when one class does *not* have the computer for half a term every year.

G.P. Keeling
Long Sutton C.P. School
Spalding, Lincs.

Information Technology and the Use of Computers

Aims

1. To use the 'tools' of IT to enhance the curriculum in as many areas as possible.
2. To teach information technology skills to all children according to their age and ability.
3. That word processing should be seen by the children as 'another way of writing' and not as a full-time alternative to the skill of writing by hand.

Objectives

A. Word Processing

1. That children should learn the skills of word processing in a progressive way:
Firstly using the concept keyboard, then the QWERTY keyboard with a simple word processor such as *Writer* and finally move on to a full word processor such as *View* using such simple operations as *Save*, *Load* and *Edit*.
2. That children should begin to use the word processor as a creative tool, taking full advantage of its ability to allow rewriting and rethinking of ideas within a group of children.

B. Data Processing

1. That children should learn as early as possible that a computer is capable of ordering information, and presenting that information in a meaningful manner if asked the correct questions.
2. That the children should process data relevant to themselves using such packages as *OurFacts* before progressing on to design their own datafiles using such packages as *DIY Database* and *Inform*.
3. That the children should become aware of the wider use of databases and have experience of videofacts systems and the use of modems.

Table 1. Programs suitable for each class for various tasks

<i>Software class</i>	<i>Adventure games and simulations</i>	<i>Word processing</i>	<i>Databases</i>	<i>Teletext emulation</i>	<i>Logo</i>	<i>CAL</i>
1 and 2	<i>Podd Jumbo</i>	<i>Story Writer and Concept keyboard</i>			<i>Infant Farmer, Dart and Turtle</i>	<i>Infant Tray, Count, Derbyshire etc.</i>
3	<i>Podd, Treasure Hunt</i>	<i>Story Writer and Concept keyboard</i>			<i>Infant Farmer, Dart and Turtle</i>	<i>Infant Tray, Count Derbyshire etc.</i>
4	<i>Magic Telephone, Granny's Garden</i>	<i>Writer, Folio</i>	<i>Ourselves, Factfile</i>	<i>News</i>	<i>Infant Farmer, Dart and Turtle</i>	<i>Infant Tray etc.</i>
5	<i>Magic Telephone, Dragon World</i>	<i>Writer, Folio</i>	<i>Ourselves, Factfile</i>	<i>News</i>	<i>Infant Farmer, Dart</i>	<i>Infant Tray, Spider etc.</i>
6	<i>Droom</i>	<i>Writer, Folio</i>	<i>Ourselves, Factfile</i>	<i>News</i>	<i>Dart</i>	<i>Tray Spider, Hippo etc.</i>
7	<i>*Spacex, Lost Frog, Merlin's Castle</i>	<i>Writer, Folio</i>	<i>Ourselves, Factfile, DIY Data</i>	<i>Telebook</i>	<i>Dart, *Logotron</i>	<i>Tray Spider, Hippo, Sounds Useful etc.</i>
8	<i>Cateby Manor, Pirates</i>	<i>Writer, Folio</i>	<i>DIY Data</i>	<i>Telebook</i>	<i>Dart, *Logotron</i>	<i>Tray Spider, Hippo etc.</i>
9	<i>Dinosaur Discovery, Adventure Island</i>	<i>Writer, Folio, View</i>	<i>Junior Find, Inform</i>	<i>Edfax, Mikefax</i>	<i>*Logotron</i>	<i>Tray Crack It etc.</i>
10	<i>Flowers of Crystal, Hobbit, How We Used To Live</i>	<i>Writer, Folio, View</i>	<i>Junior Find, Inform</i>	<i>Edfax, Mikefax</i>	<i>*Logotron</i>	<i>Tray Crack It AMX Mouse etc.</i>

*Ordered.

C. Teletext Emulation

1. That children should have experience of teletext communication.
2. That children should learn the skills of teletext communication in a progressive way using *News*, *Telebook* and *Mikefax* or *Edfax* as they move through the school.
3. That children should communicate with each other and with adults through teletext emulation.

D. Logo and Other Programming Languages

1. That the children should learn the skills of controlling the machines of the 'new technology' in a sequential and progressive way.
2. That floor turtles, screen turtles, sprites etc. are used to convey principles of space and motion.
3. That children learn to break down problems into manageable parts.
4. To make children aware of the wider uses of programming languages through *Control* and *Logotron*.

E. Adventure Games and Simulations

1. That children should use adventure games to stimulate and enrich the curriculum.

2. That simulations should be used with older children to give substance to the area being studied.
3. That both adventure games and simulations should encourage co-operation and discussion between children.

F. Computer Aided Design

1. That the children be aware of the computer as a design tool.
2. That the children experience 'drawing' with the computer using the *AMX Super Art* package.

G. Text Development

1. That the children should use text development as part of their building of reading skills.
2. That this should be done progressively using *Infant Tray* to begin and moving on to *Developing Tray* with more complex texts according to the child's age and ability.
3. That discussion of possibilities and justification of ideas should be encouraged.

H. Computer Assisted Learning (CAL)

1. That drill and practice programs be used to help any child needing such assistance.
2. That early number and pre-reading skills be improved by the use of suitable programs.

<i>English</i>	<i>Maths</i>	<i>Humanities</i>	<i>Science/ environmental</i>	<i>Art/ CDT</i>
All adventure games and simulations	<i>Count, Bottles, Nines, Ergo, Tiles, Spider, Hippo</i>	Databases	<i>Eureka</i>	AMX Mouse
<i>Infant Tray</i>	Problems of a Maths nature in adventure games	Simulations i.e. <i>How We Used to Live, Air Traffic Control, Adventure Island, Cateby Manor</i>	<i>Pond Dipping</i>	<i>Airbrush</i>
<i>Developing Tray</i>			All Databases: (<i>Ourselves, Birds, DIY</i> etc.)	<i>Pattern Maker</i>
<i>Crack It</i>	Turtle graphics i.e. <i>Dart</i>	<i>Mangonel</i>		<i>Tiles</i>
<i>Topol</i>	<i>Logotron</i>	<i>Locks</i>		
All word processors				
All teletext emulators				
<i>Podd</i>				




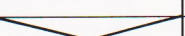



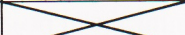





Program ← User

<i>Tutorial</i>	<i>Games</i>	<i>Simulation games</i>	<i>Experimental simulations</i>	<i>Content free tools</i>	<i>Programming language</i>
Programmed instruction; Drill and practice	Computer as player or referee	Computer as gameworld, e.g. Empire style games; Adventures	Mathematically based models; Scientific experiments	W.P.; Sound and graphic manipulators; Databases; Scientific instruments; Control technology	Logo; BASIC; Smalltalk
Hospital model; User as patient	Funfair model; User as emulator	Drama model; User as role player	Lab model; User as tester	Resource Centre model; User as artist or researcher	Workshop model; User as inventor

adapted from Chandler (1984)

Where various classes found themselves at the end of year 1986–87. We hope to fill in and move progressively to the right.

Class

1 & 2						
3						
4						
5						
6						
7						
8						
9						
10						

Micros and Special Children

Daphne Tipping

Rushton Hall School

We have used a computer (Acorn BBC B) at Rushton Hall School for some years now. All our children are visually impaired in some way, many only having light perception, others with no evidence of residual vision at all. Despite the visual problems we have found computer programs a great motivator for the children, many of whom are also physically handicapped, and we are building up a sizeable collection of hardware and software including the use of various switches, a Touch Screen and many discs especially adapted or programmed for the visually handicapped child. Most of this software is obtained from The Research Centre for the Education of the Visually Handicapped in Birmingham and we find all their programs designed for the lesser able visually impaired child useful. Contacts are maintained with a local group of schools and teachers also interested in developing programs for children with severe or profound multiple learning difficulties and some of their programs are extremely good for our children, particularly those produced by teachers themselves. We have established links with all the SEMERCS and use their copyright-free programs. We have needed to build a large collection of software in order to have a choice to suit the individual needs of our children.

The totally blind children gain a lot of fun from discs which talk or provide music and they will often respond to a mechanical voice telling them to 'press four times' rather than to a live teacher, and the children often talk back to the speech chip voice. We also have a Braid Speech Synthesiser which is a source of amusement to children and staff alike. Many programs

teaching or using Braille are available. However at Rushton Hall we are limited in our use of these because few of our children are able to learn Braille.

One of the important uses for our computer is for the assessment and stimulation of residual vision and bearing in mind external conditions, e.g. lighting, seating position, distractions etc., computer programs can be used as one of the aids in helping us to realise what a child can actually 'see'. Some children who, from observation, were thought to be totally blind surprisingly responded to certain colours or shapes on the screen or to the flashing of colours. As many of our children have little or no language apart from a possible vocal response we note changes in body positions, eye movements, facial expression, movements of hands towards the screen, the way the child tilts his head etc. We have experimented with colours and contrasts to obtain the most favourable conditions for the child. The computer can also be used to modify behaviour and we have experienced children who often rock 'still' when attention is attracted to a VDU and children who are reluctant to use hands do so when they are able to cause something to happen on the screen.

Many of our children have timetabled short (10-15 minutes) computer sessions regularly in a room set aside for that purpose therefore keeping external distractions to a minimum.

If you would like further information about any of the items mentioned in this article please contact me, Daphne Tipping, Rushton Hall School, Kettering, Northants NN14 1RR; phone: 0536 710506. The head teacher is R. Orr, B.A.

Integrating the Use of Micros into a Middle School Language Scheme

Di McCann
Dudley LEA

The original version of the scheme was written in 1984 when the most likely application for the micro was in the area of drills and skills programs. Since then the range of possibilities offered by the use of a micro has increased dramatically. Therefore the language scheme needed rewriting. I was fortunate enough to be able to do this as part of a year's secondment to a Diploma course at Newman College.

This article shows the amendments which have been made to the scheme (printed in *italics*). The explanations and justifications have not been included although they do form part of a rather more substantial case study. The implementation of the scheme in my school was supported by an in-service training programme which was designed to familiarise all the staff with the applications referred to in the document. This is crucial to the successful adoption of the scheme.

The scheme begins with a statement about the importance of language. It goes on to list the different types of work which can be undertaken during the school year. An outline of the main topics each class should experience will be followed by a resource list.

The Importance of Language to our Work in School

1. We use the English language in a variety of ways to communicate organisational, technical or emotional needs. This communication can take place through either oral or written statements.
2. English is obviously central to the whole of the learning process in our school. It would be impossible to impart or collect knowledge without using English in some form.
3. The impact of micro-technology means that we must not limit our children to paper and pens. We need to teach them the skills needed to read words from a monitor as easily as from a book. They must become familiar with entering and retrieving information via a keyboard and screen and should develop a discriminatory approach so that

they can recognise the relevant facts and formulate pertinent enquiries.

4. The development of language is therefore of vital importance and it is the responsibility of the whole staff. Whatever their personal preference every teacher must be a teacher of English. This collective responsibility of the staff is emphasised by Dudley MBC Circular 6/81 about English. It states that we should encourage children to:-

- a) read fluently so that they may become autonomous learners;
- b) to write appropriately to the subject matter;
- c) to read voluntarily as literature is part of our cultural heritage;
- d) to develop their language work through drama;
- e) to make more 'complex utterances';
- f) to present their work neatly.

In order to cover all these aspects of English we have to be sure that the children experience a varied syllabus. There are ten main areas of English work that the children should attempt each term. These are imaginative, transactional, comprehension, higher order reading skills (HORS), grammar and syntax, punctuation, spelling and vocabulary, handwriting, oral work and aesthetic appreciation.

A. Imaginative Writing

This type of writing is creative and can be of a descriptive or narrative nature. The stimulus can come from physical objects, music, photographs, films, television programmes, prose, poetry, visits, trips - in fact from virtually anything.

Computer-based adventure games and simulations have a great deal to offer in this field as they are a powerful stimulus to the imagination. They involve children in situations that lead to discussion and decision making which can be recorded in many different ways. The variety of themes also means that programs can become a resource

for extended topic work where they can help to build up empathy with the subject matter.

Although the main object of imaginative exercises is to improve the children's ability to use their vocabulary to express their ideas, the structure of the work should not be neglected. Particularly as the children get older they should be able to write their passages using sentences, paragraphs etc., and with some thought to spelling and punctuation. If they are writing a poem then they should have some feel for the rhythm, stress and pattern of the piece.

B. Transactional Writing

This type of writing is functional. It is used when working upon the technical subjects in the curriculum. It is important that the children learn to be precise and logical when presenting information. The skills of note-taking, giving instructions, imparting information, writing letters and reports, are all vital. A good grounding in these is crucial when our children move on to their secondary schools.

C. Comprehension

Reading with understanding is of paramount importance. Although most children will attempt to build up the sound of an unfamiliar word, they have great difficulty in discovering its meaning from context clues. *The use of text manipulation programs on the computer can help here.*

D. Higher Order Reading Skills

These are vital research skills. Skimming, précis work and note-taking are possibly too advanced for some children. However, they can all benefit from a solid grounding in alphabetical order work as a basis for dictionary and reference skills.

Personal topic work is again very useful in promoting these skills as is the use of a computer-based information retrieval package. This can give a focus to the individual collection of data as it soon grows into a class resource.

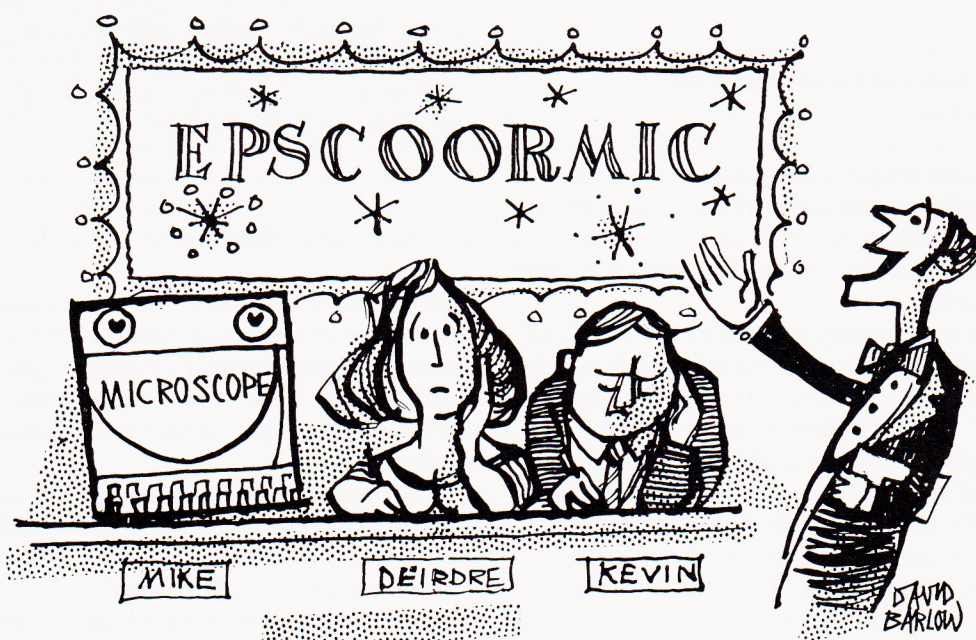
E. Grammar and Syntax

The primary aim of communication is to be understood by other people. This process is much more effective if certain rules of grammar and syntax are obeyed. A knowledge of the eight parts of speech and how they work within a sentence will result in a more coherent presentation of ideas.

F. Punctuation

Children seem to find it difficult to transfer the punctuation skills they have learned in exercises to their own personal writing. A working knowledge of the main punctuation marks is necessary for imaginative and transactional work.

The main punctuation marks are: full stop, question mark, exclamation mark, comma, semi-colon, colon, apostrophe, inverted commas.



'The contestants have thirty seconds to . . .'

G. Spelling and Vocabulary Work

The Bullock Report sees spelling as 'a convention that matters'. Spelling rules need to be learned in order to provide a foundation for attempting new words. There is also a need to consolidate and extend the child's vocabulary.

H. Handwriting

If the presentation of a piece of work is careless and the handwriting illegible, it is impossible for a child to convey his ideas to others. A neat well-formed hand is therefore desirable.

The increased use of word processing may well result in handwriting eventually becoming a craft activity but until then we must still ensure that a child can be understood through his handwriting alone.

I. Oral Work

The objective of oral work is to produce children who can express themselves clearly in a variety of situations and put forward their own point of view. This ability will obviously depend upon the individual child but all should have an appreciation of the importance of the spoken word. Some experience of drama, discussion, debate, formal speaking and reading aloud is essential.

The computer can act as a stimulus for discussion particularly with the use of adventure games, simulations and local viewdata, all of which direct the children's use of language.

J. Aesthetic Appreciation

Reading for pleasure is needed as a leisure

resource and also to give a balance to our increasingly technological world. It gives valuable insight into our heritage and other people's cultures. Reading and understanding poetry, prose and plays should be encouraged at school and home.

Word processing

The use of a word processor aids the development of many areas of language because it enables the children to correct their work easily. This leads to a greater willingness to draft and refine written work so that a higher standard is reached.

Spelling, punctuation, grammar and syntax are also highlighted by the appearance of the printed work.

Presentation

Children should be encouraged to use the word processing facility of the computer for the presentation of their work. This means that teachers must be prepared to correct print-outs as a child redrafts the work. A final copy should be placed inside the appropriate exercise book where applicable.

Further reading

- Adams, A., *New Directions in English Teaching*, Falmer Press, 1982
- Adams, A., and Jones, E., *Teaching Humanities in the Microelectronic Age*, OUP, 1983
- Chandler, D., *Exploring English with Microcomputers*, CET/MEP, 1983
- Chandler, D., *Young Learners and the Microcomputer*, OUP, 1984
- Moore, P., *English Teaching and the New Technology: Into the 1990s*, NATE, 1987

The Databases of the Future

Roger Keeling

Newman College

Word processing is probably the most common application of microcomputers both in education and the business world. Next to this comes information handling, a term which encompasses a multitude of activities, from accessing the local database on your own disc to the international on-line databases that are directly accessed through satellite links. However, in many schools, work in this area rarely extends beyond small databases of one to two hundred records because only a few schools will try exploring Prestel or Times Network. Teachers

will show children how to create a small database to support a specific classroom project and this is an extremely valuable activity. It demonstrates how to format information, how to be selective and how to access information. Children discover that certain questions can be answered only if the data is provided in the right form. Above all they learn to question the validity of the data. The computer can only process the information that the children provide; it does not check their accuracy.

At the moment there is a scarcity of ready

made (and relevant) databases with one common exception in that several LEAs have developed local history databases. However all this will change in the next few years and the need to be able to access and utilise information from databases will be a skill more common than those involved in word processing.

The problem with existing major databases, from the school viewpoint, is that they are at the other end of a telephone line. This involves extra expense, the data is subject to corruption and in the case of Prestel and TTNS the software is far from user-friendly. The result is that they are only accessed on a regular basis by a small minority of schools. However the type of database that is held on a mainframe computer and accessed remotely, is now beginning to emerge on CD-ROM (Compact Disc - Read Only Memory). This is the key to change and will revolutionise the use and availability of databases. If you link a compact disc player to the school micro you will have the same data base off-line. The crucial factor is in the capacity of one side of a 4.75" compact disc; over 650 megabytes (yes, 650,000 K). This is 6500 times the capacity of a BBC single sided single density disc. The equivalent of 220,000 sheets of typed A4 are held on one side of a compact disc (which is identical in principle to the audio compact discs that you can buy from the high street store). As yet the available discs aren't particularly relevant to primary education, but the writing is on the wall (Ed. - or, rather, on the disc). Many of the existing discs are aimed at librarians, for example *Bookbank* CD-ROM contains the catalogue entry details of the 440,000 books in print from over 12,000 publishers. It can be searched in seconds for any book and indexed under every word of every field. The same information printed to paper, single column on continuous stationery, would stretch for over 30 miles!! PAF-ROM is another disc produced for the Post Office. It contains the address and post

code of every mailable address in Great Britain, twenty-three-and-a-half million – with room to spare. Type in B32 3NT and it takes only seconds to track down Newman College. Or if you know only partial address information you can find a completely accurate post-coded address. This technology will revolutionise the presentation of data. The Greater Oxford Dictionary is due to appear in this form before long. Although the user can perform quite sophisticated searches, at the novice level the skills required are no harder than using a data-handling package such as *Grass*. It is important that we teach children information-handling skills now and give them familiarity with the concepts of databases. It won't be that many years before the school library takes on a new form.

At present the CD-ROM player retails at about 800 pounds and will drop in price. The cost of the discs can vary between £10 and a £1000; the determining factor is supply and demand. The popular discs will be cheap, the specialist databases (such as Corporate and Industry research reports) will be more expensive. In some cases the price you pay is an annual subscription, for which you will get a new disc every quarter or every month in order that the database is kept up to date. The possibilities are enormous and will expand in two directions; one is the facility to store graphics as well as text, and the other is commonly known as WORMS (write once, read many). In principle this gives you one opportunity to write your own data to the disc, after which the disc is read only. Educationalists can then be involved in the design stage and our experience with traditional software has proved how important this is. It will not be a cheap operation but the long term benefits will mean that the information that could be contained within the four walls of a classroom could be many million times what it is now. Now there's a problem for GRIST to cope with!!



An Elementary Surprise in the USA!

David Kitching

MAPE Southern Region Rep., Isle of Wight

In May 1987 I had the great privilege to be able to spend some time in American Elementary Schools with the specific purpose of seeing how they used the computer.

I was greatly surprised.

I went to the USA as a participant in an international two-year project organised by the National Union of Teachers (UK) and the National Education Association (US), grandly called the UK/USA Microelectronics Seminar*. A major part of the project was the visit to the UK in May 1985 of the American teachers and our visit in May 1987 to their country. In total from both countries there were about 50 participant teachers from every sector of the educational arena.

My invitation took me to Boston – what an exciting and energetic city! It never stopped; the freeways were constantly busy in both directions, in and out of the city. It was a city with sparks coming out of it.

Boston is a great centre of learning; it has some 20 universities, including MIT, the birthplace of Logo. I was expecting to see some wonderful innovations and imaginative uses of the computer in the Massachusetts classrooms, but . . .

I was surprised.

I spent a week in the suburbs of Boston in an average schools district, with average schools and average children. The schools I saw were big – 300+ pupils of grades 1–6. The average class size was 18; the schools had every resource; they had special programs for the bright and not-so-bright children. The schools were subjected to an extremely formal curriculum that corresponded to the very rigorous and extensive testing procedures.

The schools were formally introduced to the computer some four years ago. The emphasis then was to give each school a Logo machine and to encourage the Logo philosophy and child-centred approach. The teachers were given computers and asked, after some in-service training, to develop and incorporate Logo into the curriculum. It did not work because the Logo approach did not match the current curriculum and it did not fit in with the testing procedures.

Therefore, after an initial enthusiasm the Logo activity almost disappeared. There were a few teachers who tried to continue the work, but they were in the minority.

The schools that I visited had four or five computers shared between the 18 or so classes, and although the PTAs wanted to buy more, it was school district policy that the computer provision in each of its schools be the same. There was a general feeling that the four or five computers available should be used more; the children almost all had computers at home, and there was some pressure from parents that the children be given wider access to the computers in the schools.

The teachers that I met were confused – they felt that they ought to use the computer, but how? There was little or no money, because of school district policy, to purchase new software, so the teachers were buying commercial software themselves to use in their classrooms. They bought little teaching programs that fitted and matched the curriculum; in this way the children had access to and used the computers, but this use did not extend the curriculum in any way.

I found it strange that the Americans having been given Logo as their initial impetus were now looking for and using very simple computer applications whilst in the UK. Here we started with the simple programs and now seem to be looking for and using more sophisticated open programs.

In this school district it was recognised by many teachers that their use of the computer was inadequate, but because of the many constraints upon resources and the curriculum they did not know how to change.

Each of the schools ran special programs for slow learners and indeed they had two full-time remedial language teachers and a full-time remedial Mathematics teacher. Each of these had their own classroom with resources that included a computer system.

The brighter children were withdrawn from the school and attended a special program at the High School one day per week. These children were given extensive access to the computer. The High School had four Apple Labs each with

25+ computer systems, two IBM PC Labs, a Robotix Lab, a Mainframe terminal, etc. The bright children were given a curriculum more like that of an English primary school in which creative, social and communication skills were a major priority. They used the computers extensively to enhance and extend their work, concentrating on Logo and word processing. In the average classroom I saw children generally alone at the computer working in isolation. These brighter children were encouraged to work together, to discuss, to argue about their work as they sat at the computer, and as they did everything else.

Another problem the schools had was the incompatibility of the systems used. The main computer in use was the Apple in various versions, Apple clones called Franklins, Tandy, Commodores, and the odd PC in some shape or other. The variety was surprising to me but a constant frustration to the schools.

My time in the USA was very short, too short – and I was only able to spend a few days in these elementary schools near Boston. I was delighted by the pupil–teacher ratio and the high level of

resourcing and support, but shocked by the rigidity of the curriculum and the testing procedures. I was surprised at the way the computer was used and the priority and emphasis given to it.

I took with me, and have since sent out, copies of *MICRO-SCOPE*. The teachers that I have met are very envious of the activities of MAPE, surprised at the openness of the articles written by teachers and the apparent coherence of the English primary school computing scene. They are looking to us to give them a lead. They believe that our classroom practice and our emphasis on the use of the computer to be of more value and relevance than their own.

Are you surprised?

My observations are, of course, not typical of the whole of the USA – each school district is different; but they reflect the average American district, perhaps.

*Details of the project, its reports and recommendations are available from the NUT, Education Department, Hamilton House, Mabledon Place, London WC1H 9BD.

Children Writing Collaboratively Using a Word Processor

Liz Neville

Language Co-ordinator, Grange Park Primary School, Enfield

This is a report of the work of a primary school teacher who has a special interest in the classroom applications of word processing.

During the Autumn term of 1986 I was seconded under the Teacher Fellowship Scheme to undertake a school-based investigation spanning nine weeks in two schools in Hertfordshire. The age range was upper juniors; eighteen half-days were spent in each school. In school A word processing was introduced to a fourth-year junior class. In schools A and B five groups of third and fourth year juniors wrote collaboratively using a word processor. The software was *Alpha*, which is a chip-based word processor developed by The Advisory Unit, Microtechnology in Education, Hatfield. The aim of the study was to consider to what extent the use of a word processor aids children's development as writers.

On the basis of evidence presented in a limited investigation of this nature, it was considered inappropriate to discuss 'findings'. I

therefore identified issues which seemed to me to be important:

1. If a teacher intends to introduce word processing into her classroom, she must firstly familiarise herself with the software; this takes time. Support is needed in the form of INSET and visits from advisory teachers. An awareness of current theories about children's writing should be encouraged, otherwise the word processor could end up being used as an expensive typewriter.
2. Access to resources must be considered. A system of block timetabling is needed and this requires forward planning.
3. The following conclusions were made in respect of the original aim:

a. Drafting

The ease of correction and printout facility of a word processor would seem to make drafting much easier than it has previously been.

b. Working together

The screen display made it easier for a group of children to compose together. The skills observed were those of discussion, compromise and decision-making, although problems with one group seemed to be caused by a mismatch in terms of both ability and personality.

c. Assessing their own work

The printout facility and screen display made the examination of the writing a more realistic possibility.

d. Writing for a 'real' audience

In my investigation, I observed that the pupils envisaged an audience outside school. It is difficult to see how such an audience could be easily reached without the printout facility of the word processor.

In January 1987, I returned to my original post and carried out similar work with my fourth-year junior class to that carried out during the Fellowship. For two terms my pupils had daily access to two BBC microcomputers.

As the concept of drafting was new to my pupils, I firstly helped the children to draft their handwritten work. The class agreed on a code of drafting symbols. This was considered to be an important step before using the word processor.

I hoped that the introduction to word processing would be motivating, and I anticipated that every child would be eager to have 'hands on' experience. One way to fulfil these criteria would be to use my 'Class Model' of collaborative writing. Thus pairs of children were set the task of writing a rather elongated version of the game 'Consequences'. Only the functions of the word processor actually needed were introduced

to the first pair. This knowledge was passed on to the next pair and so on. The resulting story featured in a school assembly. Everyone had contributed and there was satisfaction in the finished result.

The next stage was to introduce the 'Group Model' of collaborative writing. I made certain decisions:

All composition would take place at the screen. The children would write together, discussing ideas until agreement was reached. They would be encouraged to separate the elements of composition and transcription. Teacher intervention would be kept to a minimum and the children would be given as much control over their work as possible. The children were to be divided into seven groups of four, of mixed sex and approximately matched in terms of literary level.

I and my pupils composed a story starter together. This was transferred on to seven discs, one per group. The task was for each group to change some of the existing features of the story starter and then continue the story in their own way. By changing some of the existing features, the children gained an appreciation of the mutability of the word processor.



Skills observed were those of discussion, compromise and decision-making.



Writing with other pupils enables children to discuss ideas and learn about language from each other.

Summarised Outline of Work Involved

The stages involved in this work are outlined below.

1. Planning

This took the form of talk.

2. Composition at the screen

The language discussion generated was of immense value.

3. Printing out the first draft

4. *Reviewing the first draft*

Group conferences were held away from the screen. A double-spaced printout was used to indicate proposed changes. The children were encouraged to consider firstly the content, i.e. the ideas, the characters, the vocabulary, whether the story made sense; and, secondly, the elements of transcription, i.e. the spelling and punctuation.

(Afterwards, it is interesting to analyse such a draft sheet, as it gives the teacher some insight into the writing process which took place.)

At the reviewing stage *Alpha's* lexicon facility was used as a thesaurus. The class had previously prepared lists of words for inclusion in the lexicon, for example, words to use instead of 'said' and 'asked' and words to describe feelings. The lexicon facility, which is a feature of some word processing packages, is a very powerful language resource, perhaps as yet largely unexplored.

5. *Editing the text at the screen*

6. *Printing out the second draft*

7. *Proof-reading the second draft*

I acted as proof-reader.

8. *Editing the text at the screen*

9. *Formatting the text*

With assistance from me.

10. *Printing out copies of the final draft*

11. *Creating a title page*

12. *Printing out the title page*

13. *Reaching an audience*

Each group presented their story to the class and printouts of the stories were taken home.

While this project was taking place, the writing groups had been creating large pictures depict-



There was an excellent atmosphere of co-operation and mutual support in the classroom.

ing their stories which, with the completed stories, formed a mural. The writing groups had been working together in a different area of the curriculum; this solved some of the organizational problems of how to keep everyone involved and busy during the stages of the writing process. It also seemed to stimulate further co-operation and mutual support.

In the school corridor the different stages of development of the stories were displayed alongside photographs of the groups at work. I feel that it is important to display the process, not just the product, so that other children, colleagues, parents and visitors to the school can understand the educational philosophy behind the use of word processors in the classroom. In order to ascertain the children's reactions to this work, I asked them to answer some questions in writing. One girl wrote:

'Our group worked together as a team and I think we worked together confidently. When there are four brains concentrating on one particular thing, you get better ideas for your writing.'

The class decided their next project was to be a class magazine, using three word processing packages—*Alpha*, *Pendown* and *Folio*. I revised group composition in the light of my observations and negotiation with the pupils. The children used their newly acquired writing skills and collaborated to produce a magazine which was greatly enjoyed by pupils, parents, staff and friends of the school.

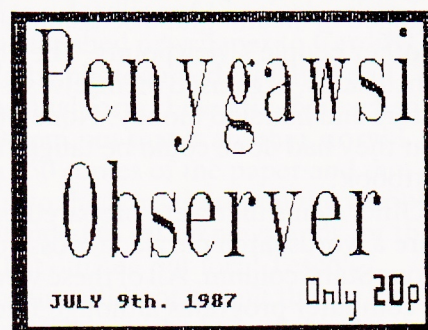
The class also used a Viewdata package to create a branching story because I saw this as a further extension of the ways in which the microcomputer can be used as a language resource.

Throughout the two terms the children were highly motivated. Learning became more autonomous and much greater flexibility in the pupil/teacher relationship developed. The pupils were more willing to reflect on their writing than they had been previously.

In conclusion, writing with other children would seem to have two main advantages:

1. Pupils are able to discuss ideas and learn about language from each other.
2. It helps to solve the practical problem of how to give all the children an opportunity to undergo this type of learning experience, given the time and resources available.

'Penygawsi Observer': Making a Real Newspaper



John Densley

Penygawsi Primary School, Mid Glamorgan (TTNS No. YOU005)

On 9 July 1987 my school participated in an exciting event when we published and sold our own newspaper, the 'Penygawsi Observer'. When children suggest making a newspaper you usually find that they are very keen at the beginning but eventually their interest fizzles out and the teacher finds it hard to rekindle. The opportunity to make a real newspaper would provide a far better stimulus. I attended the last MAPE Conference at Newman College and one of the themes was the production of a newspaper. Mike Rumble ran the course and at the end of the weekend he informed the conference of the MEDU/TTNS initiative in producing a real newspaper.

For those unfamiliar with the Times Network for Schools (TTNS), I refer you to an article in *MICRO-SCOPE 18* by André Wagstaff, 'Electronic Mail'. My children had already been using TTNS for establishing electronic penpals with children in such far-away places as Stockton-on-Tees and Beccles, but I felt that using TTNS purely for electronic mail was only using a small part of its potential. We decided that we would take part in the next TTNS newspaper simulation project.

Background to the Project

On 12 June 1986 forty teachers from Lincolnshire schools met to assess two desk-top publishing packages of software. They decided to produce a newspaper. The exercise was repeated in November 1986 when two rival newspapers were produced. TTNS heard of the idea and decided to use the electronic mailing capability of TTNS to make the 'simulation' more realistic.

TTNS set itself up as an electronic news-gathering agency in the same manner as Reuters. In Reuters items of news are telexed or phoned in. Somebody word processes the story and it is sent to a 'taster' who decides if the story is newsworthy and whether to develop the story and include pictures and so on.

A team of young secondary-school-age journalists were set up in the TTNS offices in London to act as 'tasters'. Contacts from the

News International Group of papers were asked for news items and these were sent to the 'tasters' who word processed them and then electronically mailed the items to all the participating schools. Real news was sent from various sources: feature articles from *The Sun*, *The Times*, *News of the World* and *The Sunday Times* were sent in. There were reports of telephone interviews with pop, television and theatre stars and news also came from France, Australia, Sweden and the USA.

Preparations Before the Day

The actual making of the paper only occupies one day, but the children had been prepared by a classroom project about newspapers which covered such topics as biased writing, small ads, estate agents' jargon and making up advertisements. The children, aged from 9 to 11, were proficient in word processing and one group could handle the electronic mail part of the system.

Before the actual newspaper day I decided that we would need advertisements to help pay for the photocopying costs and that these would have to be prepared beforehand, as in a real newspaper. We used *Fleet Street Editor* to make up the adverts. I contacted several local firms and none of them refused to place an advert with the paper. After permission had been sought, the children produced rough copies of adverts. An example of a finished advert was taken to demonstrate what standard could be achieved. A group of children were then taken to meet the customers. After an initial introduction, I left them there to discuss and work out a final format for the advertisement. Back at school one group of children used the desk-top publishing package to design the graphics and another group worked on the advertising copy. The final result was sent to the customers for their final approval with a request for payment!

Even if the project had stopped there and then, I feel that the children who had participated in making the adverts would have achieved a great deal. They had met people,

engaged in meaningful discussions and listened to other people's viewpoints. They had reached conclusions, organised themselves, sent business letters and handled money. None of the things that they had done could be taught from any textbook.

Other items that were prepared beforehand were a wordsearch puzzle, a crossword and a 'Your Stars' column. All of these were generated by computer programs although I do admit that the computer was not much help with astrology: we had to rely on two of our school clairvoyants for that!

One of our news items was a campaign type story, concerning the way that many of our parents park on the yellow lines outside the school, and worse, do a U-turn in the school driveway. The children set up what looked like an ordinary traffic survey and counted the number of cars coming to school. They were really there to find out how many cars parked illegally, how many did a U-turn and so on. The results were analysed and set out in pie graphs, using another computer program (*Mini Office II*). It was discovered that 31% did a U-turn in the school driveway. Letters were sent to our Chief Road Safety Officer notifying him of our findings and asking for his advice. Meanwhile some children, equipped with tape recorders, interviewed motorists outside the school gates and their quotes were included in the finished article.

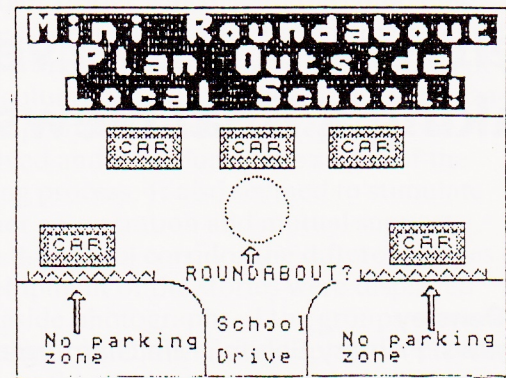
A spoof story on Lady Diana gave us an opportunity for being 'economical with the truth'. Part of the front cover had the words 'EXCLUSIVE! Lady Diana as you have never seen her before!' emblazoned upon it. There were instructions to turn to page three. On page



three, it just so happened that the Lady Diana the paper was talking about was Lady Diana Armstrong, the well known Lady Diana lookalike!

A group of children prepared a set of 'Did You Know facts' that were to be used to fill in any awkward gaps in the paper. This idea is used in the *Daily Mirror*!

I begged and borrowed more computers from local schools in the area and eventually ended up with twelve complete systems, i.e. computer,



Recently some of the staff from the Penygawsi Observer conducted a survey about the cars that bring children to school. Some do U turns at the bottom of the school drive.

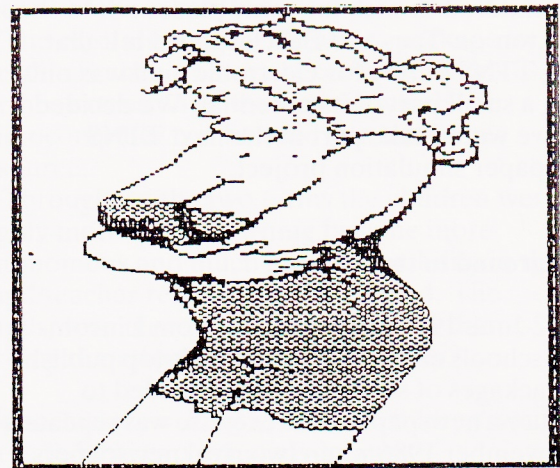
ONLY 56% park in the right place. 5% park on the zig-zag lines, 6% double park and 31% do a U turn in the school drive!

On wet days the problem increases when more people drive to school and park closer so that their children will not get wet while walking up the drive. The danger of getting knocked over is greater because of car windows getting misted up and the rain falling onto the windscreen.

"It is very dangerous in the evenings and first thing in the morning," commented Mrs. Moore.

"The residents of Clos Leland complain if we turn there," explained Mrs. Pritchard. Double yellow lines and asking the "community constable to come down in school time" were some suggestions we received. The best advice came from one parent, "A little co-operation from everybody would help improve things."

We have written to the Chief Road Safety Officer for Mid Glamorgan to inform him of our findings.



LADY "DIANA" ARMSTRONG

disc drive and monitor. I also had three printers. I think you could manage with less equipment, but as this was our first attempt at making a paper I wanted to make sure we had enough machines. My classroom has only got three power points and you can imagine the number of trailing extension sockets and cables that were all over the room!

Details of the day

An editorial board was established and their job was to decide which stories were going to be used in the paper. Once a story had been selected, it was given to a pair of children who word processed the story. The children did not merely copy the story, they edited it, to fit in with the style of the paper. If more background material was needed they could send an electronic letter to TTNS requesting more information.

The programs used to make the paper were *Folio*, *Edword2*, *Fleet Street Editor*, *Quest*, *Crossword* (GSN Educational Software) and *Desalet* (a program from 'Acorn User' by Joe Telford). To make the actual pages we resorted to cut-and-paste methods. I think that *Fleet Street Editor* is too slow and complex for primary children to try and make up page layouts and adverts during a single production day. I decided to use a commercial photocopying firm because they could offer the speed that I needed to get the paper on the streets the same day. The local Teachers' Centre had cheaper facilities but the person who runs the machine goes home at 3.30 pm!

We worked to a deadline of 12 o'clock, when I was to take the finished newspaper to Cardiff where it would be photocopied, collated and stapled into its final form. I eventually reached Cardiff by 4.00 pm, but that is another story! I returned with 250 copies of the paper and the children sold it to the houses around the school. I originally intended to set up newstands for the children to sell it outside our local Tesco's Superstore but time did not permit this.

TTNS set up a distinguished panel of judges to offer constructive criticism on the papers that were sent to their London offices. One of the criticisms levelled at the 'Penygawsi Observer' was the lack of pictures. I completely agree, but it is rather difficult within a primary school to obtain pictures of the right size that will photocopy well. I shall ask my present class to build up a collection of pictures, cut from newspapers, that might be needed, e.g. pictures of politicians, the Royal family, sports stars, etc.

Next year we will be repeating this activity, but this time I hope to take my present pupils to the local comprehensive and work from there. I want to be able to use the Standard 4 children who made the first edition of the paper. They have left Penygawsi and are now in Year 1 of the Comprehensive. In this way I hope to bridge the 'great divide' between primary and comprehensive schools, which is particularly wide in the use of computers because the children do not see another computer until Year 3 or 4 and then it is encased in a subject called 'Computer Studies'.

What I hope this article has shown is that the children are in charge of the technology not the other way around. The computer is merely being used as a tool. They are not 'playing games' such as 'Spelling Invaders' or 'Maths Invaders' – indeed in my school the word 'game' is a swear word! Children are using computers to help them find the answers or solutions to questions instead of merely learning a set of facts. This type of work can integrate very well in the primary classroom. Everything is seen to have a real purpose and work can be generated across the whole curriculum. The three R's are important and computer literacy should be a essential part of each of them.



JOKEE SALORE

What is the most dangerous fish in the sea?
Jack the Klipper

What is the fastest case in the world?
Scotie!

BATTY BOOKS

'Lion's Den' by Nora Bone

'Solve crimes' by How Dunnit

'Fireworks for everyone' by Stan Wellback

'Taking temperatures' by Thor Howler

'Space weapons' by Ray Gunn

Doctor, Doctor, my brother feels like a lift
Send him to see me
I can't he doesn't stop between floors!

How do ghosts go through doors?
They use skeleton keys!

What do you call a flying policeman?
A helicopter!

How do you stop sleepwalkers?
Put ticks on the floor!

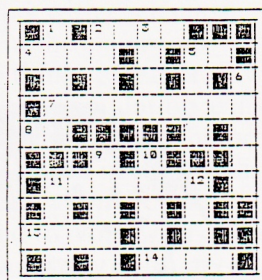
What is Dr. Jekyll's favourite game?
Hyde and seek!

What car does an electrician drive?
A Voltswagen!

What trousers do cows wear?
Dungarees!

JUNIOR CROSSWORD

Solution at the bottom of the page.



ACROSS

- 1 A type of lens for a camera.
- 2 Little boy.
- 3 Opposite of yes.
- 4 Similar to an alligator.
- 5 Slang for alright.
- 6 An Antarctic bird.
- 7 A bird that lives in a pond.
- 8 Part of an egg.

DOWN

- 1 Something that keeps time.
- 2 A very low number.
- 3 The boy jumped --- the bus.
- 4 Part of your fingers.
- 5 An animal on the road!
- 6 An animal that lives in the grass.
- 7 A baby dog.
- 8 A purple fruit.
- 9 A boy's Christmassy name!

POP COSSIP

A-ha are back in the charts with the new theme song for the new James Bond movie, The Living Daylights.

ADONIS 09500688930000000000000000000000
01 000000 000000 000000 000000 000000
02 000000 000000 000000 000000 000000
03 000000 000000 000000 000000 000000
04 000000 000000 000000 000000 000000
05 000000 000000 000000 000000 000000
06 000000 000000 000000 000000 000000
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Judges Comments on Our Newspaper

TTNS/MEDU NEWSPAPER DAY

JULY 1987

Penygawsi Primary School

YOU005

JUDGES COMMENTS

Judge: Michael Hoy

Comments: Some very well written articles on a wide selection of topics.

Layout: The pages were neatly designed but could do with a little more variation. Perhaps some of the pages would look better with more than 2 columns. The graphics were used well – but where are the pictures? Every newspaper needs them.

Final Verdict: An excellent mast-head and a clever teaser about Lady Diana at the top of a fine front page. Overall the Penygawsi Observer was a very good effort and one of which the editorial team can be proud.

RUNNER UP - PRIMARY

TTNS/MEDU NEWSPAPER DAY

JULY 1987

Penygawsi Primary School

YOU005

JUDGES COMMENTS

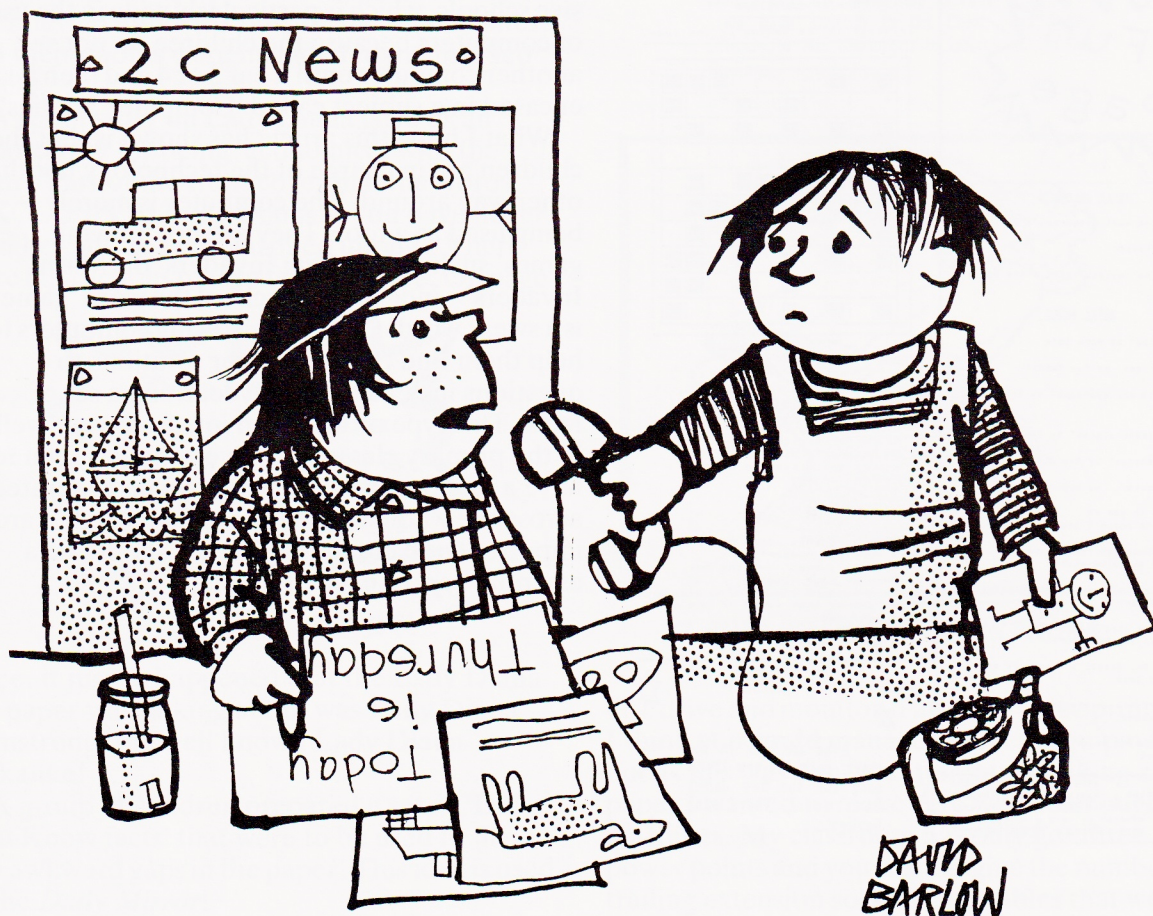
Judge: Patricia Rowan

Contents: Right choice of page one splash – most national newspapers led a same 'police ambush' story. Penygawsi's own Lady Di page 3 scandal. Nice mix of news, features, ads, and light fillers.

Layout: Clear design style, restrained use of type; only occasional 'dog-leg'.

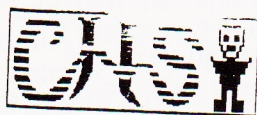
Final Verdict: Efficiently organized, readable newspaper. Good use of resources for advertisements and artwork.

RUNNER UP - PRIMARY



'If it's Maxwell again, tell him we're not selling!'

The News



1st May 1987

**ISSUE
FREE!**

MISTER NEWS

Mick Nadal
College House School, Nottinghamshire

Setting the Scene

As a part of the 1987 MAPE annual conference at Easter, I attended a series of sessions run by Brian Richardson of Cambridgeshire Software House and Mike Rumble of Northampton Computer Education Centre. The theme of the session was 'Desktop Publishing'. Although I had previously used computer software to produce newspaper simulations in the classroom the enthusiasm of the presenters and their approach to the topic provided the stimulus to try one on a larger scale in my own classroom.

At the same time, as a part of College House School's staff development activities, the head teacher had asked me to run a weekly unit intended to enhance the staff awareness of and expertise with activities involving word processing. This involved working with groups of children from two classes each week. The contact was for half a day with each class, alongside the teacher, in the classroom.

By linking these two things together, it was possible to run a newspaper simulation at a level that I had not considered attempting before. The newspaper was produced in several distinct phases. I 'gathered' the news on the one day per week that I was released to work with other teachers. On the following day, with my own class, we published the newspaper and on the day after that we sold it.

Phase 1 – Gathering the News

The activity of the half-day contact with each class was contracted with the teacher. The subjects for the word processing activity varied from class to class. With some it related to a topic they were doing, such as the 'How We Used to Live' television series on the First World War. The children produced reports as though they were reporting what was happening at that time. Some teachers chose to let the children interview people in connection with their topic work and then type up their reports. Others allowed the children to invent the news and left it to the children's imagination. Some wrote reports about school visits and others chose to write about actual national news. In addition to news items there were some 'feature' items.

The activity in the classroom involved the use of two wordprocessors. *Wordwise* and *Mini Office II* were used because they produce compatible files and are similar to use in the editing stage.

In each class the groups of children working on the activity were chosen by the teacher and were mostly of mixed ability. With the whole class I introduced the idea of their being the journalists for the paper, pointing out the importance of speed, in order to keep the news 'fresh'. I then demonstrated the simple aspects of using the word processor. This included typing in words and the use of the delete key. The teacher then worked with the rest of the class on some other activity while I facilitated the two groups with the word processing.

The children were encouraged to draft their news items as quickly as possible. They then went back through them, editing such things as spelling, punctuation and the sense of what they had written. Some help was given to them, with a copy of the draft work being printed and errors being highlighted co-operatively between myself and the children. The work was then saved on disc and copies of the edited work printed for each child.



'Using the word processor, I'll now show you how we make alphabet soup.'

Phase 2 – Publishing the News

After the news had been ‘gathered’ from the classes, the discs with the children’s work files on were taken back to my own class for the publishing phase on the following day.

(a) *Making the decisions*

Before the first issue was produced, the class had a number of production decisions to make. Each of these was made in a democratic manner with as little of my influence as possible.

First the name of the newspaper was chosen and of the initial thirty or so suggestions, most were soon eliminated. The final name, ‘Mr News’, was not my personal favourite or (to me) the most apt, but was the choice of the class. I next pointed out the costs of producing the paper and the children calculated what they felt was the most satisfactory price for the paper.

Each area of responsibility in producing the paper was discussed and the children chose the ‘staff’ for the different ‘departments’. Another decision was about how many copies to print and this was revised each week on the basis of sales.

The final decision was about the format of the paper. Against my feelings, the class opted for double-sided, folded A3. This led to printing difficulties, but the children decided that the overall effect would be better. They were right.

(b) *Editorial team*

The first duty of the team was to decide which items gathered from the classes were news and which were features. The team was split into two sections. The news editor and his assistant edited news items. The features editor and her assistant edited anything that was not considered to be news. The two teams went away and decided on headlines for their items. They passed these on to the production team. The managing editor managed both groups, checking on how things were progressing and liaising between the editorial team and the production team.

Each group edited the work from the classes for spelling and punctuation. They then went on to edit the items in relation to the paper as a whole, fitting them into available space, explaining the context of the items and formatting them in columns. When this was done, the edited files were printed and passed on to the production team.

In addition to this the managing editor recruited children from the class to act as reporters for such items as teacher’s news and school sports items.

(c) *Production team*

Although there is computer software on the market that simulates newspaper production and will accept word processor files, this was not used because I felt that too much time would be spent on learning how to use it, rather than producing the paper. The one concession made, was to use *AMX Pagemaker* to produce the name of the paper, its logo and headlines. The children agreed that this seemed a reasonable decision.

The production team was split into two groups. One was responsible for printing text and producing headlines using *AMX Pagemaker*. The other group did the ‘cut and paste’. This involved ruling up paper, planning the layout, cutting the items into columns and pasting them up with their headlines. One of the few things that I helped with was the final ruling up of the pages between separate items.

(d) *Printing*

The completed paper was copied double sided on the photocopier. The nature of the copier and the format that the children had decided upon, led to printing difficulties, with each copy being hand-fed into the copier. This meant my staying behind after school to complete the print runs. The children had convinced me about the format of the paper by offering to stay behind with me to help with the printing. How could I refuse? Having checked with parents, they organised themselves into two shifts. The first worked from 3.45 pm to 4.45 pm and then went home. The second either went home at 3.45 and returned, or played basketball at school and then came and joined the second shift at 4.45 pm.

(e) *Publicity*

One of the ‘departments’ was responsible for advertising the newspaper. Each week they produced posters and distributed them around the school. They also produced a billboard with the banner headline, for the sales department.

(f) *Regulars*

There were also some spaces in the paper and these were filled with work from children in the class, who worked on puzzles, cartoons, jokes or poems. These were kept in a file and used as the need for fillers arose.

Phase 3 – Selling the News

On the day following production, the paper went 'on the playground'. Children took it in turns to assume the role of street corner paper sellers and went on the playground at breaks. The sales department accounted for the number of papers sold, cashed up and passed the money on to school funds. This helped to offset the cost to the school of producing the paper and made decisions about the number of papers to print more important and realistic.

Classroom Organisation

During the day on which the paper was produced, at least half the class was actively involved in the production. Those who did not contribute or only had small involvements continued with other group based topic work. It had been agreed that, because of the nature of the activities, it was not a good idea for each child to try each activity. Although there was some rotation of 'staff' amongst the class, key jobs mainly remained the same.

The editorial team worked in a small room adjoining the classroom. The production team took up about a quarter of the classroom with computers, cutting and pasting tables.

We found that it was possible to manage production with two computers as a minimum, but when available four proved to be better. If the activities had been spaced out over a week, with each group performing their tasks consecutively instead of concurrently, one computer would have been sufficient. However to make this simulation work 'in real time', it was necessary to have the co-operation of colleagues, with the loan of their computers for one day each week.

Rationalisation and Evaluation

It was not, of course, all plain sailing. The printing gave major problems, but the children coped with them. Wanting to make use of so many computers meant arranging to borrow them from other teachers for the day.

At times the production of the paper meant that children voluntarily missed some special school activities that they would have probably enjoyed, such as theatre performances and a puppet workshop. They took this as part of their responsibility, but I tried not to influence their decisions. Some chose to work on the paper, whilst others did not.

Not all the children in the class participated in the newspaper each week, although there was input from them all at some time. This meant

that the experiences of the children were not all the same. However each child contributed at his own level and all major decisions were taken by the whole class. Some children declined the invitation to work in one of the major roles, feeling that they were not able to perform under the pressure required. This in itself was a decision that took some courage to make.

There were also times when the newspaper production 'staff' required some input from me and this meant that those children not involved in it, had less of my time at that point. Again they coped with that, continuing with their work in a sensible fashion. I made every effort to give extra attention to them at other times of the week. The production of the paper meant that both the children involved and myself were working through the majority of break and lunch-time on one day each week, which was wearing for us all!

Putting the children in the position where they were managing each other, inevitably led to some disputes especially where the pressure of time made speed necessary. Arbitration in personal disputes was one of the tasks that I had to perform. The children did however respond in a very mature way to this. An example of this was when the managing editor went on holiday and another child took over for two weeks. It became clear that his substitute was able to handle the particular hassle of getting people to complete work rapidly and stick to task, in a very efficient manner. On his return, the editor realised this and resigned in favour of his substitute. I encouraged him to stay with the editorial team, pointing out to him that his decision to stand down was a sensible one, but that his other skills were still of great importance to the newspaper. The outcome was that another of the editorial team resigned, because he felt that the new managing editor was too hard. After I pointed out to him that the agreed job of the managing editor was to get the paper out, and that he was trying to do his job the best way he knew, the team member stayed on, agreeing not to personalise comments that the editor made in the course of his job. The editor in turn agreed to be more thoughtful in his choice of comments. These and similar incidents seem to indicate that the children were taking a mature attitude towards coping with problems arising from both personality and pressure created by work. They were in fact, put in the position of making some of the difficult personal decisions, which adults find themselves making.

The children made most of the decisions about the running of the newspaper and so seemed to consider it as their responsibility. In one slightly embarrassing incident, a temporarily flustered editor asked to come into the staffroom

A TV Programme is Made

Keith Whiting

Robinson's End Middle School

It is five o'clock on a Wednesday evening and I am relaxing after having had three advisers in school for the day, when George Auckland, BBC producer of *Micro Mindstretchers*, rings.

'Hello, Keith. We would like to film at school next Tuesday and Wednesday.'

Panic! I am out each evening so no chance of a quick haircut and my best (only!) blazer needs cleaning. Never mind, I shall have to look as usual – scruffy.

Tuesday

On Tuesday at 1300 sharp, along came the crew to see a class of expectant children with a nervous wreck sitting in front of them. After a quick look around the room, George and the cameraman spot the first casualty – my wonderfully impressive firework display. It is too specific. Four children destroy it in one minute – just like November the fifth.

The soundman comes up to me and starts to stick tape onto my tie for a microphone while placing a transmitter in my pocket.

'No, it does not pick up your racing heartbeat, but be careful what you say under your breath.'

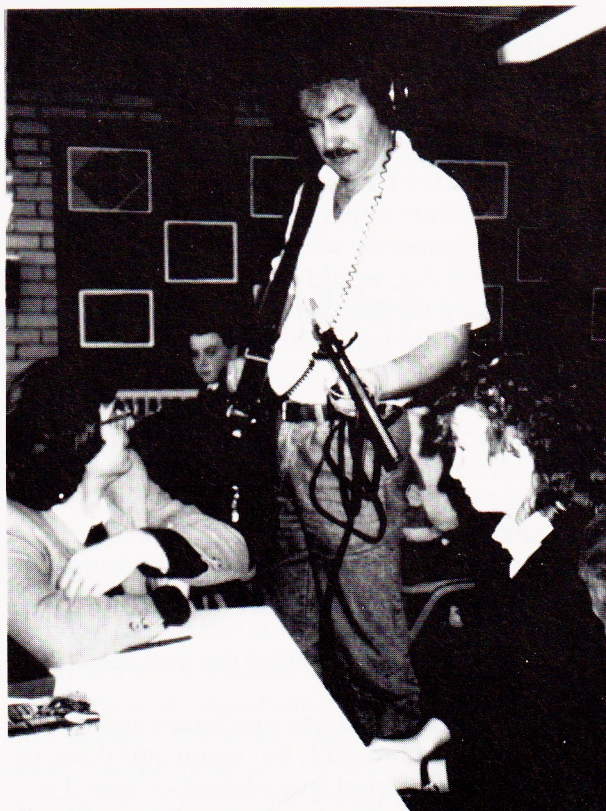
With bright lights and wide-angle lenses the filming began. Everything was back to front; the children answered questions and then put up their hands!

Many retakes and several hundred feet of film later, we were all beginning to relax and enjoy the unique experience.

After break and much-needed coffee the conditions were reasonable for filming the outdoor running sequences. The starting pistol was loaded and the children prepared for an 80m race. The retakes for the start of the race were mainly my fault as I did not have the strength to pull the trigger on the old gun! When I did get it right, I shot myself in the ear and suffered similar effects to those of a firework explosion! Amazing to think that it took an hour to get what will probably be half a minute of final film. Filming continued after the rest of the school had gone home and the children's usual endless energy was beginning to wane.



'They really use clapper-boards!'



'Was she loud enough?'

Wednesday

Wednesday started with sound-only answers from the children. I think it was called 'Wildtracking'. This is when you realise that every chair in the room squeaks at the slightest movement. The computer was filmed in a variety of poses together with the results of some of the children's investigations. I collected children from the local first school, including my youngest son (well, why not?), and they were filmed being tested. The children made friends (or nuisances of themselves) with the crew and enjoyed poking various pieces of expensive equipment.

What Were One-and-a-Half Days of Filming For?

From 9 May 1988 there will be a series called *Micro Mindstretchers*. It is a computer-based series along the lines of the excellent 'Mindstretchers' programmes. There are five problems each followed a few days later by five progress reports.

Our problem was to analyse the results of an experiment with the aid of a spreadsheet (*Grasshopper*) as a powerful number-cruncher. *Grasshopper* is very easy to use and to produce graphs. The experiment was a reaction timer

using a calibrated ruler. The outdoor sequences related to the reaction time of athletes to the starting pistol. Many problems came to light which were discussed and the children investigated further. The progress report will show possible solutions rather than definitive answers. A tremendous amount of group investigative work is possible with this very simple experiment using the computer spreadsheet as a tool for a part of this process.

What Next?

I shall now endeavour to fill the gap on my wall left by the firework display with 'Making a film'!

And George Auckland and film crew?

They have plenty more work filming the other four programmes based on Desk Top Publishing, Databases, Art and Design, and Control. Their patience and calmness with the children was remarkable. Every shot was planned and practised meticulously. It was a joy to watch a group of professionals striving for perfection in this way. Hopefully, that will be a useful lesson for the children. Thank you BBC.

For those of you intending to watch the series this year the following notes will, I hope, be of help. They are also being sent to the BBC for possible inclusion in future programme notes.

Additional Reaction Timer and *Grasshopper* Spreadsheet Notes

When converting a ruler to a reaction timer using the printed strip, we always extended the scale with offcuts of paper. With younger children a photocopy of this extended scale, diagonally on A4, would be much easier.

When using the *Grasshopper* spreadsheet it may be quicker to leave out some of the average functions until the end. The advantage is that the input speed is very fast, less than a second instead of about 10 seconds. The disadvantage is that children are not able to watch the averages changing as they put in their results. You need to experiment and compromise. If a blank spreadsheet is prepared before the lesson, you can only use the average function in advance if an initial set of values are put in the first cell for each child – I use zero. (You cannot have the average of no results!)

The use of the functions maximum and minimum are also useful, but again add these to the initially completed spreadsheet or speed is again lost. Unduly fast (anticipated) reaction times can quickly be identified and repeated.

Spreadsheets are easy to use but it helps if you are reasonably familiar with them. I would recommend about two hours play, possibly with the exercises in the *Grasshopper* manual.

Many of the investigations were, as expected, inconclusive, although some interesting results were obtained from our small sample. Will you find the same?

1. Left hand appeared better than the right for right-handed children.
2. The use of screens gave more consistent results.
3. No difference was apparent when children were blindfolded and touching the ruler with their finger.
4. The results seemed better with children looking *and* touching the ruler.
5. Strenuous exercise followed by testing made no difference.
6. Very young children (5–6 years) had difficulty in catching the ruler but there was no obvious relationship between age and reaction in adults.

7. There seem to be peaks and troughs when children are timed regularly through the school day.
8. The girls in my class had better averages than the boys. Group the girls' and the boys' names separately on the spreadsheet if these averages are to be investigated.

I have certainly been bitten by the bug during these investigations and wish that I had the time to study certain aspects further. If anyone knows of any scientific/medical studies into reaction time then I should be very interested to hear about them.

Finally, I have the BBC User Manual *Reaction* program, together with one from Newman College on disc, available on receipt of disc, postage etc.

Notes

Micro Mindstretchers programme details from BBC Education Service.

Grasshopper is available from Newman College in either BBC or Nimbus format. Contact your LEA computing adviser and check whether or not they have purchased a licence. Single copies are available. Contact Roger Keeling, Newman College, Bartley Green, Birmingham B32 3NT for details.

Reaction programs from K. Whiting, Robinson's End Middle School, Park Lane, Nuneaton, Warwickshire.

The computer in use being filmed. Close-up of keyboard presses.



MESU . . . What Have They Ever Done for Us?

André Wagstaff

Primary Curriculum Co-ordinator

All over the world there are people at the sharp end of things – they stand on the heaving foredeck of storm-tossed yachts, wrestle with recalcitrant livestock, strive to contain raging fires, some even stand in classrooms; a common question is never far from their lips. 'What' they demand, 'have *they* ever done for us?' The 'they' are always those who seem far removed from the hurly-burly – the coastguard headquarters, the

ministry of Agriculture, and, some might say, MESU.

MESU is yet another of those nasty acronyms so beloved of education. It stands for Micro-electronics Education Support Unit. In many ways it is the successor to MEP. But its focus is somewhat different and its funding is very much smaller. The unit should have started work in the spring of last year. That was the theory. In

the event, most staff came into post on 1 January 1987. Their brief was fourfold:

- to provide appropriate curriculum support materials;
- to provide an information service about software/hardware, good practice, planned projects etc.;
- to support the activities of pre- and in-service trainers;
- to continue and develop the work begun by MEP in Special Education.

How has this brief translated into action insofar as the primary phase of education is concerned?

First, there is one person with a primary background within each MESU curriculum team. These teams have been visiting every local education authority and teacher training institution and establishing links with related bodies. Those visits have brought back a wide range of information; this is being entered into an enormous database which will be available for our contacts to consult.

Second, several projects have been commissioned which should result in work which will be of interest. Here are two examples. In Wales, eight local authorities are looking at the vexed question of primary/secondary continuity and the role which Information Technology can play. Elsewhere, in some sixteen authorities, schools have been provided with floor turtles and are exploring their use in a wide range of novel and interesting ways.

Third, some curriculum support materials have been released: *Prompt/Writer* is an enhanced version of *Prompt3* (MEP Blue File) and *Writer* (MEP Primary Project Infant Pack); *Window* is a program which does for pictures what *Tray* did for words. Copies of these have been sent out to all our contacts. Your local primary or IT adviser should have full details.

Fourth, there is some curriculum support material which is on the point of release: *Contact*

is a program which will let you control external devices such as lights and motors (a bit like *Controller*, but you will not need a Logo chip installed); and the Information Handling pack is a suite of information retrieval software accompanied by articles and a resource list. We hope to have these available at the beginning of the new year ('88).

Fifth, we are engaged in preparing materials which can be used to support the work of the ESG funded primary advisory teachers who will be appointed during the course of next year. The average authority may well be having up to three or four of these, all with the aim of spreading IT across the curriculum wherever it can contribute to the enhancement and enrichment of learning. The materials we are aiming to provide fall within the areas of science, maths, the humanities, music, and art and design. Some of the materials will be new; some will be material which already exists, suitably enhanced. We shall be following the model created by the MEP Primary Project in that, whilst the materials will be aimed at the advisory teacher, the majority can be passed on to classroom teachers for use by both them and their children.

The above is really just a taster of the sort of things MESU is doing in the primary area. Obviously, there are many others. You will probably agree with some of the things we do, and powerfully disagree with others. But I hope that you will agree that we are moving to support the work of practising teachers – even if it is not at an individual level. There are just a few primary people at MESU trying to serve the needs of 27,000 primary schools. So if we seem a bit distant at times, bear with us. We are active on your behalf, and you will see these activities working through the system over the next year.

Finally, a plea for help. If you believe that there are certain specific things which you think MESU should be looking at – write in and let us know. We are here to serve your needs, not the other way round.

Life After News Bulletin

Graham Dean

Deputy Head, St Barnabas CE Primary School, Darwen, Lancashire

Playing with my head's new teletext TV set one rainy day in the holidays (heads being the only teachers who can afford teletext TVs!) didn't exactly fill me with enthusiasm. My other experiences of viewdata were no more interesting: I have never found the adverts for Oracle and Ceefax to be inspiring; and walking past TV shops with rows of screens all showing the same teletext screen is only a marginal improvement on rows of sets showing the same test card.

But I am now an avid viewdata advocate. What converted me? Nothing traumatic, nothing earth-shattering – just the arrival of the *MAPE Disc 4*. At first glance I wasn't over-impressed with the programs on the disc – though I have learnt that my first impressions of software have often been totally wrong – or so they proved to be with *MAPE Disc 4*.

One of the programs on the BBC disc was a teletext simulation, *News Bulletin*, which allows the entry of the user's own pages of information. I asked my pupils to record work from our current topic using *News Bulletin* rather than in a more conventional manner. The children enjoyed doing it, and I was pleased with the effort which they put into their work.

Whilst producing the pages, we discussed how many pupils had teletext TVs – more than a third of them. This convinced me that working with viewdata ought to have a place on the curriculum. The majority of my pupils might be proficient at using alphabetical indices, and skimming down tables of contents – but they could not cope with the very simple branching structure of menus which we had used as an

index to our own teletext magazine. The skills involved are different from the conventional comprehension and reading skills taught in school.

Some pupils had trouble in condensing their information into the restricted space available (there are always a few children in every class who find it difficult to separate the concepts of quality and quantity). Viewdata can provide a useful aid in keeping writing brief and to the point.

On reading more about viewdata, including reviews and advertisements for more comprehensive 'Do-it-yourself' viewdata programs, I realised there was far more to the use of this medium than the common sense that I had originally thought was the only requirement. Our answer, to date, has been to order a teletext TV set for the school (we're still awaiting delivery), and to purchase *Tele-Book*, a viewdata editing program from 4Mation Educational Resources. This has arrived, and within two weeks of its arrival, our 3rd year junior class had used it to enter a competition run by Prestel Education – and managed to win a prize.

If only a small portion of the high-tech prophecies about our future use of electronic media become fulfilled then we need to prepare our pupils for its use. If a teletext TV is already a more common item in the homes of our pupils than a children's encyclopaedia, then we surely ought to teach our children how to extract useful information from it! Thanks for *MAPE Disc 4*, and in particular *News Bulletin*, which made us aware of a need, and also provided a good first step towards fulfilling it.

Animated Mathematics

A suite of programs for the Spectrum computer

Jeffrey Barham and Martin Hodge

'Mathematics for the Deaf Child' Project

Computer software is no respecter of boundaries. Materials produced for children of a particular age or with a special need are often found to be of value by those for whom they were not originally intended.

The programs we made to be used with hearing-impaired children have been seen by many teachers in primary schools, and because they are concerned with problems met by most children learning mathematics, we would value the opportunity to bring these programs to the attention of readers of *MICRO-SCOPE*.

The Project

Like any teachers of hearing-impaired children, we knew the difficulty they had with mathematics. It has its own language, its own rules, and seems sometimes to have been designed by a malevolent mind to cause confusion and frustration. As our junior-school-aged children could barely cope with the books and materials produced for infants, it needed no expert to point out to us that deaf children are usually at least two years behind their hearing friends in mathematical attainment.

Three years ago we were able to help start the 'Mathematics for the Deaf Child' Project at the Cambridge University Department of Education. Generous funding was provided by two well-known charitable organisations. With Dr Alan Bishop as Director, the project has three main aims:—

1. To investigate the problems that young deaf children have in learning the basic mathematical concepts;
2. To assess the value of microcomputer programs in helping overcome these problems;
3. To suggest, where possible, more appropriate methods of teaching mathematics.

We began our work by visiting a number of schools and units simply to ask teachers what they felt the greatest problem was. Invariably we received the answer 'Language'. Of course, we realised that Mathematics, with its 'triangles' and 'subtraction', had a language of its own and,

even more confusingly, used words like 'take' and 'carry' in a different way from how they are used in real life. But were the children's language difficulties producing more subtle problems? Was the fact that deaf children have more difficulty with the concept of 'same' than of 'different' related to language? After all, once one has recognised that two numbers are the same, one has said all that needs saying – but if two numbers are different, one's brain unconsciously calls on its store of words to categorise them as 'bigger' and 'smaller', 'more' and 'less'.

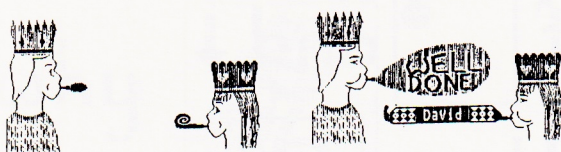
We found too that very young deaf children have difficulty in putting numbers in order – they may recognise '3' when they see it, but cannot relate it to '2' and '4'. This problem of 'sequencing' – putting things into order, occurs in many areas of school learning. Children need to write up the steps of a science experiment, consider the stages in the development of the frog, carry out the operations in a mathematical problem *in the right order*. Again, their limited language may make thinking through such activities difficult.

It has been estimated that between the time a hearing child begins to speak and the start of his infant schooling he learns the meaning of about half a dozen new words every day. Many of these meanings he learns from the innumerable questions he asks, but most simply he learns by hearing them used in everyday conversation. Nobody formally teaches him what 'if', 'because' or 'next' mean. Deaf children do not learn the meanings of such words easily and mathematics, even at a simple level, depends for its existence on words like 'if', 'because' and 'next'.

The Programs

The programs are the result of 18 months' research and are produced to a professional standard. Each of the programs makes extensive use of high-resolution graphics. By concentrating on pictures rather than words and by using animated 'reward screens', the programs are both appealing and instructive.

The five programs cover a range of skills including the concepts of difference, order,

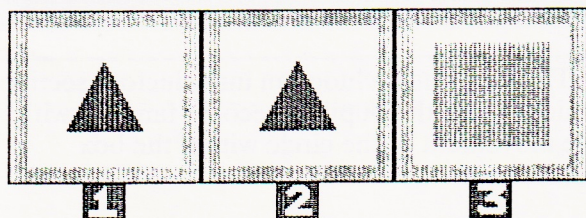


sequence and causality. The programs *If . . . Then* and *Why? . . . Because* are designed to give experience of certain language constructions which are usually not well learnt. A brief description of the programs follows.

Odd Man Out

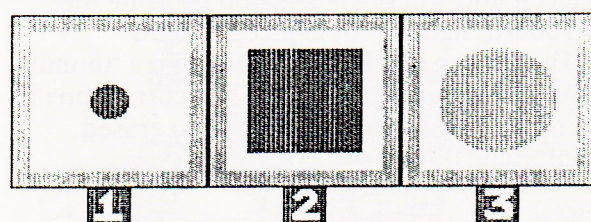
This program was designed to encourage children to understand 'difference' as opposed to 'similarity'. For each question the pupil is shown three shapes and asked 'Which is different?'. The shapes used are based on the familiar logi-block set and have three characteristics – shape (triangle, square and circle), colour (red, blue and green) and size (small, medium and large).

Which is different ?



Press key 1,2 or 3

Which is a different shape ?



Press key 1,2 or 3

The questions are in five separate sections; the program allows you to start when you like and move from one section to any other section at any time. The sections vary from relatively straight-forward questions where two of the shapes are identical and one is obviously different, to specific questions such as 'Which is a different colour?' where there might be an odd man out in size or shape, requiring the pupil not to be distracted from the question asked.

Ordering

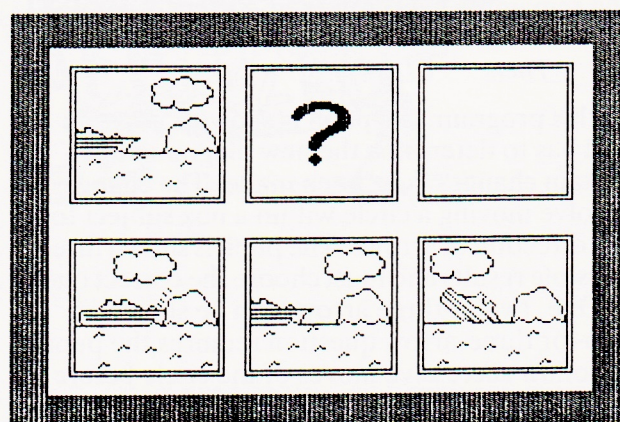
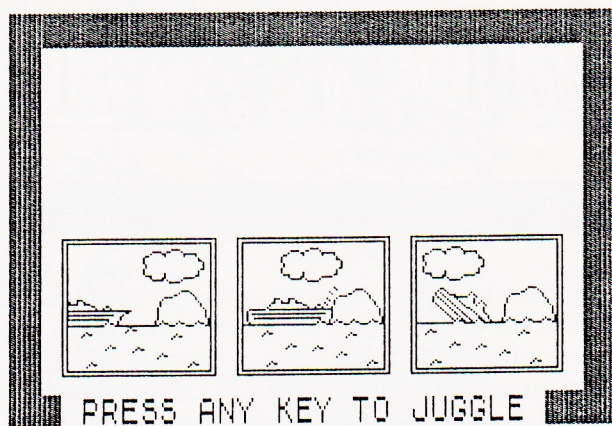
Ordering is designed to help pupils with sequencing. A number of pictures are shown one after the other and the pupil is asked to recall them in their correct order by pressing keys or a concept keyboard.

Before each question the teacher can select how many pictures are to be shown from one to six, enabling the pupil to start confidently with one or two pictures. The pictures shown are chosen at random from a bank of twelve. If a wrong answer is given the teacher has the option of repeating the question by showing the same series of pictures again. The overall speed of the program, which includes how long the pictures appear on screen, can be controlled and correct answers mean that a 'reward' is given. The rewards involve animation of different parts of a clown's face – the more pictures correctly recalled, the more his face becomes animated!

Sequencing

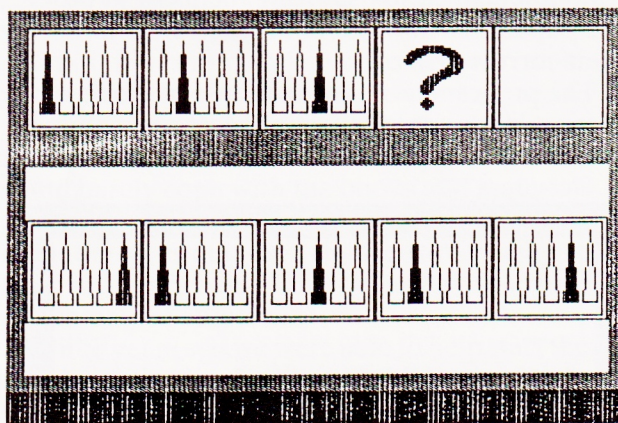
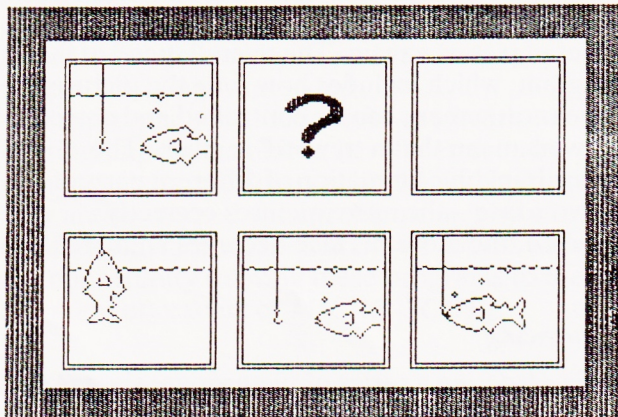
As in *Ordering* a series of pictures are shown, but this time they are not randomly chosen but form a sequence. By showing them out of order the pupil is encouraged to arrange them into their correct order.

The program is in four sections. In the first section, each question comprises three pictures which tell a story.



These are shown in their correct order on screen. When the teacher is satisfied the pupil understands the story, the pictures can be 'juggled' on screen by pressing a key. The pupil must then rearrange them into their original order.

After each question the teacher has the option of choosing another set of pictures to juggle, or going on to the main picture section where the three pictures are shown out of order and the pupil again has to rearrange them, but without seeing them in their correct order first.





In the other three sections of the program the pupil is shown a number of boxes containing figures which form a sequence. These are shown out of order. Pressing a key shows which figure starts the sequence and the pupil has to select the remaining figures in their correct order.



If . . . Then

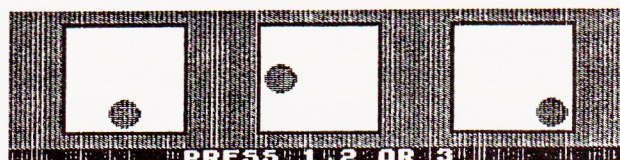
In this program, the pupil is shown a diagram and has to determine the new diagram after certain changes have been made. The changes involve moving a circle within a box subject to the direction of arrows. The pupil is shown three possible results and must choose the correct one.

One, two or three arrows can be shown. A two- or three-arrow question requires the pupil to follow successive moves of the circle before determining its destination.

If  and ↓
then 



If  and → and ↓
then 



The program includes an introductory section which allows the pupil to become familiar with the movement of the circle within the box according to the arrows.

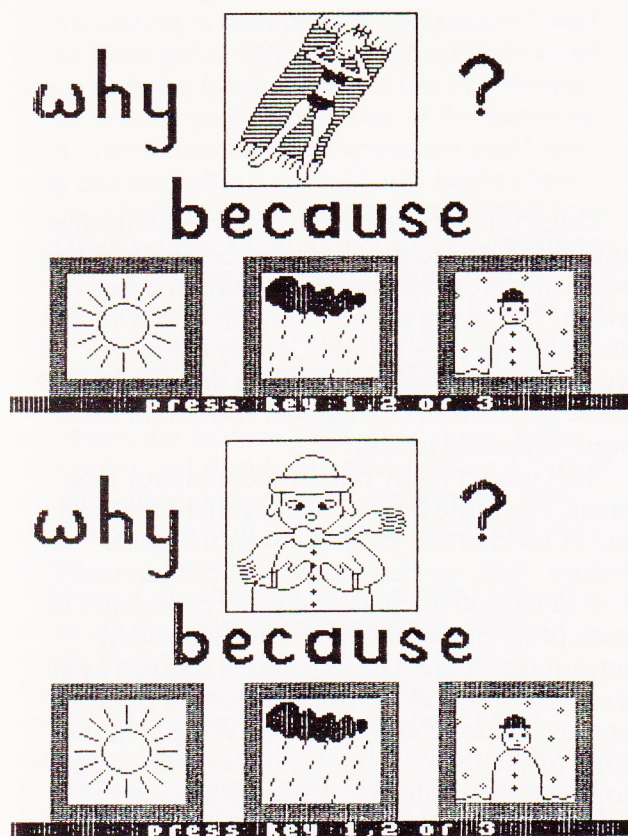
Why? . . . Because

This program contains a bank of pictures, each of which is associated with either 'hot', 'wet' or 'cold'. The pupil is shown a picture and has to select a hot, wet or cold option by using the keyboard, lightpen or Concept Board.

The chosen box is highlighted and a 'thumbs-up' or 'thumbs-down' given. The correct box is then highlighted and the other two erased, reinforcing the correct choice.

The members of the 'Mathematics for the Deaf Child' Project believe that many of the emotional and behavioural problems hearing-impaired children have may result from their inability to stop, think and reason through a situation logically. We are convinced that mathematics in the classroom must be taken beyond the 'What they need to know' stage to encourage the children to enter the exciting realm of mathematical discovery.

The computer offers a sense of challenge, behaving as a patient teacher when a wrong answer is given, but providing a sense of achievement when a right answer is given. We believe the programs developed during this project can not only benefit teachers of deaf children but



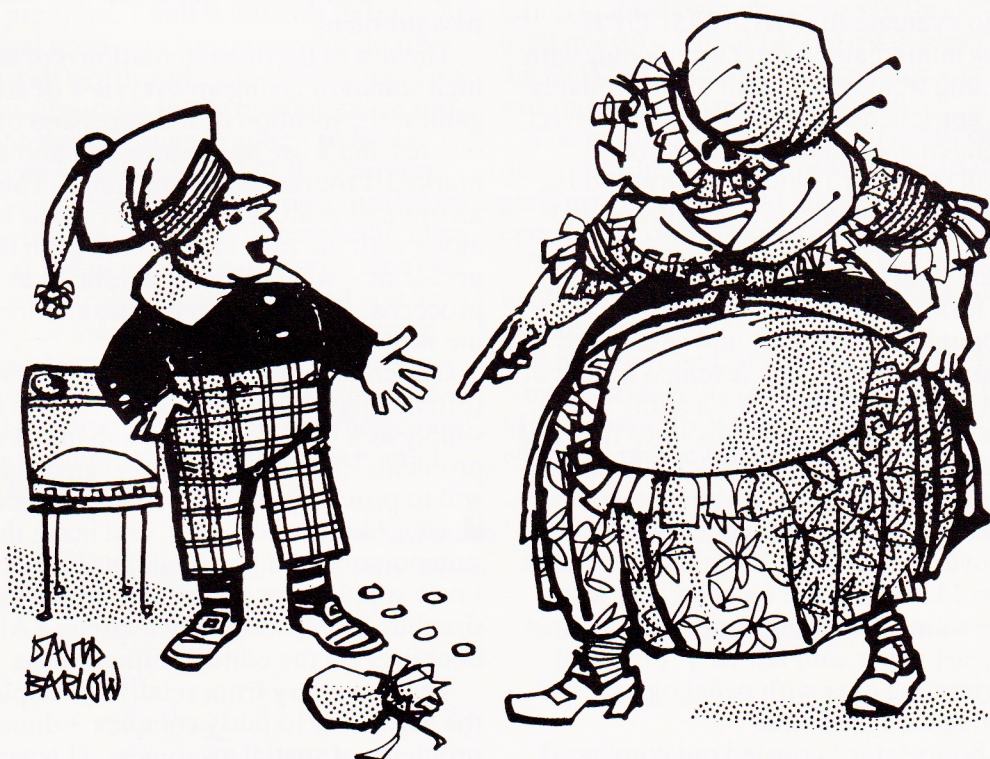
should prove appropriate to teachers of early primary and 'second language' pupils.

When these programs were developed, a concept keyboard and a lightpen were used. To make the programs as accessible as possible all five programs have been adapted so that they can be controlled from the keyboard. The options to use a concept keyboard or lightpen have been retained within the appropriate programs.

Programs which develop key concepts such as cause and effect and which concentrate on stimulating language can encourage children to see that mathematics is not only 'doing sums' but a means to help them think and reason.

Notes

These programs are available for the Spectrum 48K (and all later models), and are supplied on separate tapes with accompanying guidelines. They cost £10 per set and can be obtained from Martin Hodge, 46 City Road, Cambridge CB1 1DB.



'O.K., so they're beans. But have you seen the F.T. program on Capital Growth?'

Software reviews

Title: **Giantkiller**

Publisher: Topologika, PO Box 39, Stilton,
Peterborough PE7 3RL. Tel: 0733 244682

Machine: Acorn BBC B

Price: £18.40

Two weeks before the end of the summer term I received a phone call during a frenetic art and craft lesson.

'Hello,' I gasped, after sprinting the length of the corridor and breaking at least three school rules in the process. The voice at the other end then produced the most incredible query I have yet encountered:

'Have you got much to do between now and the end of term?' it said.

This was almost bettered by the follow-up:

'Would you like something to fill in your spare time?'

Keep calm, I thought; don't panic – these kind of people need reassurance. So in the hope of averting a nasty situation I replied:

No, not really. I was wondering what I could do.'

'Right,' said Senga. 'I've got this program I want you to evaluate for *MICRO-SCOPE*.'

Realising immediately who I was dealing with left me feeling weak-kneed and uncontrollably dizzy with apprehension. Determined to assert my independence of character, however, I mustered all my inner resources, garnered the last dregs of my rapidly expiring courage and whispered:

'Fine, just send it along.'

True to form an innocuous-looking package arrived a couple of days later and with bated breath I broke the seal. This revealed a copy of *Giantkiller* by Peter Killworth – a name I've conjured with on many occasions since that first fateful moment. What really took my breath away were the words 'A maths adventure for ages 10 to adult' emblazoned none too boldly on the front cover of the documentation – from that moment on I knew it wasn't a giant that was going to be slain! Muttering words to the effect of 'Faint heart never won fair lady' I trudged upstairs brimming over with pedagogical enthusiasm and began work.

Several hours later I crawled out convinced that two years of SMPG maths had *not* prepared my second year class for the traumas that await the unwary traveller to the realm of this particular giant.

'Well, she'll have to wait till next term,' I thought. (Isn't it easy to be brave at a distance?)

Unfortunately next term did arrive – despite my best efforts to the contrary – complete with a vertically grouped class of 30 third and fourth years. Following the age-old philosophy of 'get them before they get you', I split the fourth years into three groups of three and set them loose on the trail of whatever it was that they were supposed to find.

This wasn't really fair on them as they had spent very little time at the keyboard and had never tackled any kind of adventure game before. Still, we persevered without too much loss of hair on my part, but prior experience of such programs would have been a decided advantage. A great deal of time was saved by an excellent insert in the documentation designed specifically for children to use. Written in the form of a letter to the player it gives hints on how to tackle the problems, a map of the start location, worksheets for individual problems, and a most useful resumé of the commands upon which the computer will act. All this can be photocopied and given to the children at the beginning as I did or in part as they uncover a new problem.

The rest of the documentation is of an equally high standard giving an overview of adventure games, the location of treasures and objects, one teacher's use of the program and a section marked 'Program guide and hints'. This contains an optimal route through the various locations along with the rationale behind each of the problems – which get more difficult as the game proceeds. (I'm going to get the children to help me with the last couple!)

On screen most of the adventure is in text (often delightfully droll) and graphics are used simply as a visual aid to the solving of certain problems. A fairy-godperson can be called at will to provide help but being a temperamental beast is likely to 'de-splat' and leave the summoner with a flea in his ear for being a pest. I now supplement my income with a fairly sizeable, highly mobile flea-circus. (All bookings via the editor's office please.)

The tasks vary from relatively simple use of the calculator to fairly complex 3-dimensional problems of spatial awareness. (I never really knew until now just how poor my spatial skills were.) Most of them encourage a logical problem-solving approach and careful note-taking. I've found that this is an area that needs fairly firm direction if the children are not familiar with adventure games. They are too keen to get on

with it and often miss small details that will later cause them great difficulties. One way to avoid this is to make frequent use of the very simple 'save' routine provided on one of the function keys. The documentation stresses it and I can only endorse what it says. It only takes a few seconds before they move into an unknown area and then returns them to their present position. Of course no-one can legislate for the child who saves her position when she's fallen into an acid bath very near the end and then wonders why she can't get out! Mind you that would have been a picnic compared to what I had in mind for her when she told me what she'd done. From that point on I decided to take backup copies of the files after every session – it takes less time than having to wait for a group to start all over again.

Most of the children have enjoyed using the program and solving the problems, many of which they said they found quite difficult. Certainly I saw a lot of lively discussion both around the midrow and away from it. My approach didn't really do it justice in that it was restricted to a small group and was not given the follow-up time it warrants. On a personal level I would hesitate to use it again purely and simply because my maths background is not sufficient to draw the best out of the children given the wealth of mathematical possibilities contained within the program. I find it difficult to think in mathematical terms but for those who do this program is well worth adding to the library. Too many maths programs in my opinion place too much emphasis on finding graphics to fit the maths or even worse maths to fit the graphics. This one avoids that pitfall and concentrates on the 'nitty-gritty'. As a non-mathematician I can only guess at the work that could arise from its use by someone trained in the field so if you have that training or interest the program is worth serious consideration.

As for me – I'm off to join Charlotte in the acid bath. I bequeath the flea circus to Senga and *Giantkiller* to all those of you who have any capitation left. May you both prosper.

Steve Sullivan
Hereford and Worcester LEA

Title: **Emergency First Aid, Save-a-Life**

Machine: Acorn BBC B

Price: £3 (40 or 80-track disc)

Contact: Dr P.M. Burridge, Consultant
Anaesthetist, Copeland Office, Birch Hill
Hospital, Rochdale, Lancs OL12 9QB.
Tel: 0706 77777

Although it is suggested in the limited documentation accompanying this software that the program is used before going on to practical training, the software was used in our school to reinforce a demonstration and practical session which had taken place ten days earlier.

This was not out of choice, but by virtue of the fact that the software was not brought to my attention until I spoke of the practical session which I had recently attended.

The software is basically a text-based multi-choice question routine, with extra textual information and a few graphics routines. This seems as good a way as any to tackle the subject of Cardio Pulmonary Resuscitation.

There is a great deal of information to take in, and the staff felt that this was more meaningful if they had already attended a practical session, as some of the vocabulary and techniques mentioned and demonstrated in the software are best related to a previous practical experience.

The documentation declares that the Resuscitation Council would like to see this software used in every school for ten-year-olds upwards, but the staff here felt the language and content was much more suitable for adults.

The graphics are rudimentary, but one would question whether an improvement in the graphics quality would make very much difference to the overall suitability of the software.

To conclude – a reasonable piece of software, for *adults* or *adolescents*, *after* a practical (hands-on) session.

P.S. Can it be transferred to RML 480Z and Nimbus to save us having to borrow a BBC Micro next time we want to use the software – which would be regularly!

Mick Harwood & staff
Blakenhale Junior School, Birmingham

Still Holding the *Front Page*?

In *MICRO-SCOPE 22* Jetta Megarry wrote about the events which occurred when she tried to use *Front Page Extra* with the whole school. The gremlins which interfered with her plan also seem to have got at the article! On page 23 a series of instruction cards were printed; they should have been accompanied by an explanatory 'Master Card'. Please read this page in conjunction with those in *MICRO-SCOPE 22*, then the whole thing will become much clearer. Incidentally, a new version of *Front Page Extra* is currently being designed and programmed. It will allow you to overcome most of the problems highlighted by Jetta.

Master Card

1. Give out cards to everyone in the team. The easiest one is card A, then B, C and so on up to G.*
2. Make sure the cards are done in this order:
C E G F D B A
3. Encourage each child to do his or her own task, but help out if they get stuck or find the keyboard difficult.
4. Use the DELETE key if they get repeated letters by mistake like thissssss. Watch out for this problem at card C: child must tap key lightly. If 4 held down, it will be treated as a filename and the program will fail (see below for restarting).
5. Make sure the SAME letter is given for card C and card B; this is the team's badge letter.
6. At card E, press the CAPS LOCK key; the CAPS LOCK light should go out.
7. Ideally the whole team should help to decide what to write about and discuss the best words to use, but don't let this stage drag on too long. A couple of questions ('What did you like best? Did anything make you laugh?') may help them to get started.
8. Transfer to the other computer to print the page if another team is waiting. Check the printer is switched on, on-line with printhead just below the perforations. Each page takes about 2.5 minutes to print. After printout, pencil the number of photocopies needed and encourage the children to add drawings later.

*Children can share cards if more than seven in group. If less than seven, give cards A and B to the youngest child and both F and G to the oldest.

To restart from scratch

1. Boot the disc with SHIFT-BREAK (while holding down SHIFT, press and release BREAK).
2. Press space bar.
3. Press A.
4. Instructions on cards start from the menu: press 4 or 6 as appropriate.

C

Press 4.

Press your team's letter
(on your badge).

Press RETURN.

E

Type your name.
Press space bar.

Ask everyone else to type in
their names.

G

Press RETURN until cursor
is below Report.
Write a sentence about the
Fun Day.
When finished, press
RETURN.
Then press red f0 key.

F

Correct any mistakes, using
arrow keys and DELETE.
When finished, press
RETURN.
Then press Y to confirm.

D

When asked for an
advertisement, type your
team's name.

Then press RETURN.

B

Press 6 (print page).

Then press your team's
letter.

A

Press RETURN twice.

Front Page Extra – Latest Corrections!

The listing offered to readers in *MICRO-SCOPE* 22 to overcome the 'can't extend' message generated by *Front Page Extra* had one character omitted.

Make the following changes to the program called CHECK:

Change line 105 to:

```
105 DIMpg$(30),b%30
```

Add these lines:

```
129 IF N%=4:PROCcopy
```

```
25000 DEFPROCcopy:LOCALX%,Y%,A%,L
```

```
25010 PROCos('SAVE !!!temp 0+7D0')
:X%=b%:Y%=b%DIV256:!X%=M%:A%
=5:CALL&FFDD:L=X%!10:PROCos('L
OAD ''+$M%+' 3000'):PROCos('SAV
E !!!temp 3000+'+STR$~L+' 00'):PR
OCos('DELETE ''+$M%):PROCos('RE
NAME !!!temp ''+$M%):ENDPROC
```

```
29000 DEFPROCos($b%):LOCALX%,Y%
:X%=b%MOD256:Y%=b%DIV256:CALL
&FFF7:ENDPROC
```

If you would rather not get into BASIC programming, then please send your original BBC copy to Simon Harris (FPX), Computer Centre, Newman College, Bartley Green, Birmingham B32 3NT, including a self-addressed sticky label and stamps to the value of 30p. He will update your version of the program and return it to you.

BBC MAPE Tape IV: Bug corrections for News Bulletin

Two bugs are known to exist in *News Bulletin* on BBC MAPE Tape IV.

The first occurs if the maximum number of pages is reached, i.e. 40. The program crashes out with a 'No such variable at 9120' message. The second one happens if a magazine reaches the maximum length allowed, i.e. 16K. This one is more serious because the magazine file becomes corrupted.

To correct these bugs, make two changes to the program called 'NBedmag' as follows:

```
LOAD"NBEDMAG"
```

On line 9120 Change **Blksz** to **BlkSz** (lower case 's' to upper case 'S') and leave the rest of the line unchanged.

On line 130 Change **MPL=&280** to **MPL=&320** and leave the rest of the line unchanged.

```
SAVE"NBEDMAG"
```

Simon Harris

Computer Education group – National Conference

'Computing in the Classroom – 1988'

The ninth national biennial conference is to be held at Nottingham University from Wednesday 6 April to Friday 8 April 1988. Once again every effort is being made to ensure that the high standard achieved in the previous conferences will be maintained, and the charge, including meals and accommodation, has been kept as low as possible at £54 (for CEG members) and £59 (for non-members).

Present arrangements indicate that there will be plenary sessions on:

- IT and Educational Developments
- Control Technology as a Route to
- Primary-Secondary Liaison
- Current Hardware Developments

- Paperless Music Publishing
- MESU Activities and Aspirations
- Satellite Tracking

and there will be a choice between sessions covering topics in

- Information Technology
- Applications
- Software

In addition, there will be Software Workshops.

Application forms and the complete programme will be available in the February issue of *Computer Education*, but can be obtained earlier, on request, from the Computer Education Group, Conference Secretary, 10 Paddock Close, Stafford ST16 1RY.

Treasurer's Notes

The last two years have seen a steady growth in our membership figures and should pass the 4000 mark in 1988 (see accompanying graph). We have a very low rate of lapsed subscriptions and many of these are due to oversights. This enables your committee to plan ahead with greater accuracy and less wastage by over-ordering the publications. The latest task being undertaken by our agency is the reorganisation of the regions. There are bound to be a few anomalies so please bear with us for the present.

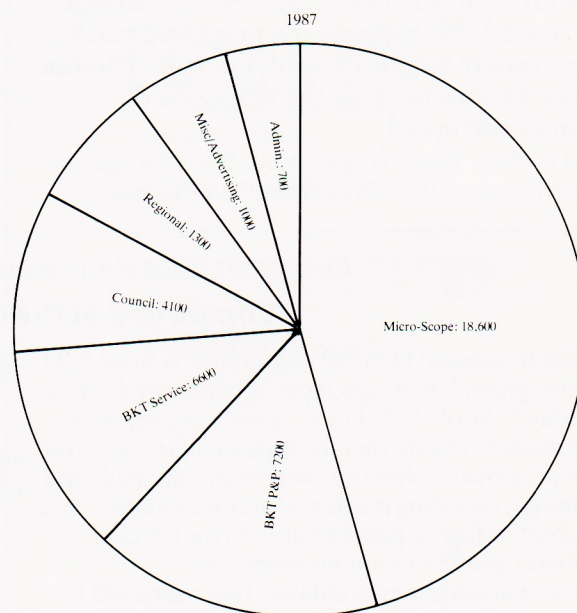
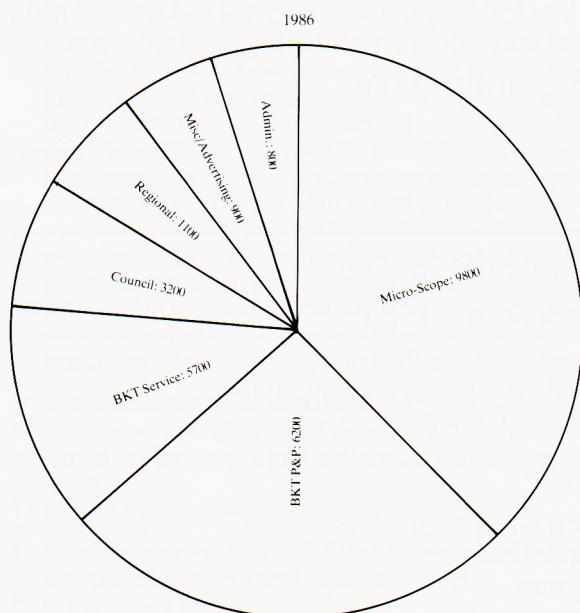
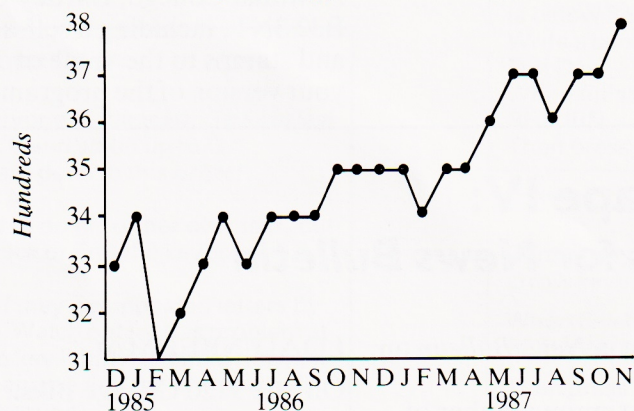
The charts show how your subscriptions have been spent over the last two years. There should be a small surplus this year. Our sale of licences

continues to provide a steady income with over fifty for MAPE Disc 4. This income is invested and should hopefully keep subs at their current level for the foreseeable future. Running costs are very low as we have no paid officers yet and are not liable for VAT.

Remember you can claim tax relief on your subscription worth over £3. For a full report on the 1987 accounts, book a place at the Durham conference. If you are not interested in the report then book anyway and do something else during the AGM!

Keith Whiting

Graph showing growth of membership



MAPE News

West Midlands

(The largest and most active?)

Committee meetings and teacher courses are held at Newman College, Birmingham.

Back in the Spring of '87 someone at WM MAPE had a brainwave. Rumour has it that it was Roger Keeling as he's the only one who owns up to having a working brain. 'Hang about, hang about! Why not plan a whole year's MAPE activities. Let's meet up in a pub, somewhere central to all our LEAs, and sort out a calendar of events.' This popular suggestion resulted in 4 reps spending the evening in a Shropshire pub in the middle of nowhere producing an A4 list of events with something happening nearly every month, mostly on Saturday mornings.

Because we had a very successful 'Beginners' Session' in the summer term the first event, 'Beginners Plus', was planned by request for September. The first session must have been an incredible success because only nine teachers turned up for the 'Plus' session! Either we were not needed or the publicity was off the mark.

After changing the publicity pattern, sixty drenched teachers attended the October Saturday session on word processing. That was the day of the gales and floods and after this we decided that fifty was the maximum we could handle in the Computer Centre. At these morning courses we usually have 'hands-on' for 480Z, Nimbus and BBC. Teachers are encouraged to bring blank formatted discs for copying (legal) and leave an SAE and a pound for any relevant documentation which they may need copying.

The day conference in November focused on micros and language teaching and was attended by over one hundred teachers (including helpers) and had workshops and three main speakers: Anne Farr, Beryl Malone and Di McCann.

One of the year's more frivolous session, 'Christmas Themes', managed to integrate programs such as *RM Arrow*, *Cloze*, *Tray* and *BBC Compose* and *Prompt* into the Christmas spirit! This was one of the few sessions that Roger Keeling missed as he was sunbathing in Spain with his lap-top micro (officially he was at a conference). His absence was more than compensated for by Pam's excellent home-made chocolate cakes.

Coming soon are the following morning courses:

Saturday 6 Feb 'Adventure games'
Saturday 19 March 'Information Retrieval'
Saturday 14 May 'Desk-top publishing'
Saturday 11 June 'Local viewdata'
Saturday 9 July 'Micros and infants'

In addition, on the evening of Thursday 3 March we will be holding our AGM followed by an interest session and wine and cheese.

Watch out for your application forms in *MICRO-SCOPE* and your school post. If you miss these send a SAE to me at the address below.

Thanks to all the WM MAPE committee for their time and hard work which makes these courses successful, especially to our secretary Grahame Banks, our treasurer Dermot O'Brien, and our chairman Mick Harwood.

Dave Christie
Bell's Farm Primary School
Brockworth Road, Druid's Heath
Birmingham B14 5YG

South West

A report on the Adventure Morning held at Rolle College, Exmouth on 7th November.

What is the connection between the Hong Kong Government and a class of seven-year-olds in an Exmouth primary school?

A grey November Saturday was brightened by Devon MAPE and their Adventure Morning. Twenty-eight primary and middle school teachers attended.

Stephanie Witcher, an infant teacher from Littleham Primary, Exmouth showed a video of her class of seven-years-olds taking part in a wide range of activities from mathematics through to dance/drama, all of the work inspired by 4Mation's *Dragon World*. The children even wrote to the Hong Kong Government to find out about Chinese dragons and were not as amazed as the adults were to discover that there is a real dragon living in the world today!

Lis McGill of Ladysmith First School brought children's work stimulated by *Wizard's Revenge* (Sherston Software). Teachers were able to examine adventure software from 4Mation and Sherston. Neil Souch of 4Mation was there in support and was able to demonstrate next year's adventure (if they decide to publish it!) which uses icons instead of text on the screen and uses a variety of input devices including concept

keyboard, light pens and even switches which can be operated by severely physically handicapped children.

Our next meeting will be a Logo Workshop and will take place at Rolle College in early March. In the Summer term we have a language day organised. See *MICRO-SCOPE* and your local Area Education envelope for details, or contact Martyn Reynolds at Exeter Road Primary, Exmouth, Devon.

*Martyn Reynolds
Exeter, Devon*

Great Western (1)

A witty and convivial gathering assembled at Bridgwater on 17 October (that's how I was told to start) to hear Anita Straker talk on the Present, Peter Hunter to talk on the Future and Jon Coupland to talk on the Past (although he claimed he didn't know what he was meant to be talking on). I was also told to say that the organisation was cracking good, the committee wonderful and that it was a nice day. Also to thank David Woodward for letting us use the Teacher's Centre. I was a bit worried when Pat Fox, who was in the chair, said that she had organised a loose day but nothing fell to bits.

Coming so soon after the Great Storm, we were wondering if our speakers would arrive. No problem. Anita Straker was soon suggesting ways to make the most effective use of the micro. To consider not only its future development, and the type of programs to use, but to question the way we are thinking about it, and the way in which we, as teachers, help the child to learn.

Peter Hunter's Future was pyrotechnic in its scope. Word processors that you can talk to and that can question your style of writing, computers that can learn from their mistakes and have a sense of humour – great stuff. (Marvin, look out!)

After an excellent lunch, Jon Coupland gently took us back to the Beginning and showed us that really we've come quite a long way along the computer trail, wearing our pumps. Bearing in mind Anita's and Peter's thoughts there is a long way to go, but we must not be apologetic about what we have achieved so far.

Yes it was a nice day.

David Moore

This report is lighthearted and doesn't really do justice to the day which was well attended (60+) and very worthwhile.

Our next activity is an 'Allsorts' workshop on 13 February. This will run for the morning only and is intended for local teachers.

Pat Fox

Great Western (2)

Report of Mape Day at Cheltenham on Saturday 14 November 1987

A number of teachers in our area requested a session which was different from our usual workshop type of session.

What they wanted was reports from local teachers who had used the microcomputer as part of their usual topic work.

This Saturday morning session was held in response to this request. We started off with Mary Bascombe and Mary Oliver explaining how they used the computer with their infant classes. Mary Oliver explained how she used *Tig*, a turtle graphics program which allows simultaneous use of the concept keyboard and a floor turtle, to discover things about the locality. She showed how the turtle work produced spin-off effects in terms of art and craft work as well as the development of language.

Mary Bascombe showed plentiful examples of her pupils' work which arose out of information handling packages such as *Ourselves* and *Ourfacts*, including art and written work.

After a short break Hilary Ashmen guided us through her third year juniors' work on *Spacex* and showed us how the program generated its own impetus for suggesting ideas which the class wanted to develop.

Sheila Duffill then showed an approach to topic work which involved adapting several computer programs. For example, in a topic on Owls she had used *Concept Writer* with *Speech*, *Infant Tray/Create*, *Front Page Extra*, *Ourfacts*, and *News Bulletin*. All of these are freely available, especially to MAPE members!

Sue Marlow, a maths advisory teacher, then explained how she worked with another teacher in using *Wizards Revenge* and how this had helped the other teacher see how all sorts of exciting work can be developed from a topic arising from a computer program.

The final session was given by Charles Windsor who demonstrated and talked about *Car – Maths in Motion*. He explained that his approach had had to be tempered by the lack of time with the computer, i.e. one week in four.

It was obvious, from the questions being asked, that the teachers who attended had gained new ideas and insights and appreciated this type of session.

Our next event is on Thursday 11 February 1988, 4.15 pm to 6.30 pm, and is a workshop based on the use of the concept keyboard.

Wizards Revenge, Sherston Software, 8 Court St, Sherston, Malmesbury, Wilts SN16 0LL
Car – Maths in Motion: Cambridgeshire Software House, The Town Hall, St Ives, Huntingdon, Cambs PE1 1NZ

Reg Eyre

Southern

The Southern Region continues to thrive and grow, although because of distance and other commitments etc. that growth is a little slow. Nevertheless things are happening and enthusiasm and involvement are increasing.

Since the last report dated June and today (27th November) several gatherings of the Southern MAPE membership have taken place.

The inaugural meeting of the Berkshire MAPE group in Reading was brilliant. Andy Pierson described the pleasures of using the micro to make music to an enthralled audience. Chris Robson, the 'brains' behind the Berkshire group, arranged a second meeting for 16 November on the theme of Christmas and was inundated by eager and anxious teachers. Details of this elsewhere on this page.

In Hampshire the first of the Solent Roadshows took place at the Southampton Curriculum Development Centre and was attended by about 25 people. The theme was The Micro and Language; presentations were given on the use at the concept keyboard, word processing, tracker books, *Interword* and *Concept Writer*. Next term the Roadshow moves on to Chichester, and a meeting is proposed for Saturday 16 January at the Teacher's Centre. In the coming months it is planned to take it to the Portsmouth area and perhaps the Isle of Wight.

The Dorset MAPE group had a good meeting in October; Bob Hart took 40 teachers on a magic trip through adventures and described the delights of exploring and making adventures. The Dorset group are very hard-working and have set themselves high standards. It is their wish to involve all Dorset MAPE members in their activities. The next meeting is planned for 27 February or 5 March at St Osmonds Middle School, Dorchester; a speaker with a national reputation is due to speak, details nearer the date in LEA post.

It is hoped to have a meeting in Northern Hampshire before Easter, most probably in the Farnham area, again details later. The Isle of Wight will also have its first MAPE meeting before Easter. It would be a help if members in those areas who want to assist would contact me a.s.a.p.

The Channel Islands have some specific and difficult problems that make MAPE activities a challenge, but there is a possibility that some form of meeting could be arranged, if the MAPE members there want it. If you live in the Islands and want some support please tell me a.s.a.p.

I have now sent *Concept Writer* to 40+ members and nobody has replied to my request for information regarding how it is being used or

examples of work done: they would still be welcomed.

In the New Year, I hope to be able to organise the Region on a more structured basis and to invite members from each county to form a Regional Committee, so that MAPE activities can be a little more co-ordinated. Your ideas would be welcomed.

1987 was the year MAPE emerged in the Southern Counties. I hope that with your support 1988 will be the year that MAPE really becomes established as an important and extra dimension to the work of primary teachers.

Dave Kitching

Berkshire

With grateful thanks to last year's *MICRO-SCOPE Christmas Special*, the Berkshire MAPE group held its second meeting on the theme of 'Christmas Ideas for your Computer'. This was planned to take place on 16 November in the Berkshire Centre for Computers in Education, in Reading, as an essentially practical session. The idea obviously appealed to everyone, since about 60 people wanted to come, and as the Centre holds a maximum of 30 people for practical activities, we decided to split into two separate sessions, with part two of the meeting taking place the following day at Cippenham Middle School in Slough. Ideas included *Front Page Extras* about chronic overcrowding in Bethlehem, a pantomime file for *Mallory*, the Newman College 'enhanced version' of *Wordplay*, Christmas cards using *Image*, *Patterns* and *Delta* (Berkshire's own turtle graphics program), an advent calendar using *Touch Explorer* on the concept keyboard, musical (?) snowmen, carols, and trees in a variety of guises. My thanks to Berkshire MAPE members Chris, Mark, Howard, Julia and Graham who willingly allowed themselves to be coerced into helping, and to Carol and Jennie at the Computer Centre.

Overseas

Did you know that MAPE has members in Africa, Australia, Belgium, BFPO, Borneo, Canada, France, Greece, the Gulf States, Holland, Hong Kong, Israel, Italy, Malaysia, Malta, New Zealand, Norway, Pakistan, Portugal, Singapore, Spain, Sweden, Switzerland, Turkey, West Germany and the West Indies?!

As most MAPE overseas members should now know, I have just happily 'volunteered' to be their Regional Representative. I *did* ask if I could have expenses to arrange regional meetings, but for some reason, the Treasurer said no. What a pity – the prospect of a Christmas meeting in the Bahamas or Australia has a particular appeal!

Undaunted however, I have written to everyone inviting them to send me a brief account of their experiences with children and computers, and have already had responses from West Germany and Malta, and a promise of an article from Sweden. I look forward to hearing from more of you before Easter so that I have enough snippets of news to include a world round-up in the next issue. Meanwhile, one member in BFPO 28 is having problems with a 20-station Econet network, transferring software from floppy to hard disc and then finding software that is networkable. If anyone thinks they have experiences which might help, perhaps they could drop me a line, and I'll put them in touch.

Chris Robson

Northern

Last year our main regional activity was a 'Road Show' – a travelling exhibition of children's art-work based on MAPE Tapes 1–4 and *MICRO-SCOPE* articles. Each LEA used it in their own way, usually with lectures and demonstrations. For example, South Tyneside held a week of lectures aimed at different interests.

As this year the National Conference is in our area, we have made a decision not to do anything large regionally, but rather spend our efforts encouraging members to attend.

Ian Gustard

Scotland

Conference and Annual General Meeting

Our Conference and AGM was held on 28 November 1987 at Northern College, Dundee. Guest speaker was Jon Coupland who entertained around 150 delegates with a lively presentation, visual and verbal, on evolution, engines, railway tracks, SHIFT and BREAK, but most of all on pumps (gym shoes to the uninitiated!!). The presentation was designed to encourage those just starting on the slippery slope of computers to go ahead and dip a toe in the water, to warn those of us already on the slippery slope not to jargonise it and not to expect others to instantly achieve 'great things'

with computers; in Jon Coupland's own words 'don't expect mountain climbing from others before they have had a chance to run round the playground testing out their pumps'. In short, he brought the whole business of computing right back to the classroom teacher and the pupils, and to the fundamental questions of 'Why am I doing this?' and 'What are the children getting out of this?'.

Having had computing thoroughly demystified, the delegates were then let loose on a variety of workshops and presentations – *Folio* versus *Pendown*, infant adventure games, maths adventure games, satellites, control technology, *Compose*, interactive video and databases throughout the school. Eavesdropping on some of the goings on I was intrigued to hear snippets such as:

'If you can tell the difference between a teapot and a star you can make music.'

'but I don't want to stop playing with it!' (Maths adventures – *Sherlock Gnomes*), and 'aaaarrggh!!' (Control technology – or lack of it maybe!)

The morning sessions came to a halt for one of the essentials of a conference – lunch! A chance to talk to others who had attended the same workshop or presentation; a chance to talk to those attending different workshops and presentations; a chance just to talk before moving on to a new workshop or presentation.

On display over lunch, and indeed throughout the whole of the day, was a superb exhibition of children's work connected with a variety of computer software from schools in Tayside. The display ranged over such diverse topics as circuses, the Tay Bridge disaster and outer space; and from friezes to full sized models, to tape recordings, to a video film presentation. Our thanks to all those teachers and pupils who contributed to this.

I hope that everyone left the conference feeling fired with enthusiasm to try something new, bearing in mind Jon Coupland's closing remarks.

'Just to be on the first step should make you happy. To have reached this point is no small achievement.'



MAPE National Committee Members 1988

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Code 12

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To be appointed

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TTNS YOW001

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Sunderland, Gateshead

Code 07

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LEAs

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Code 13

SOUTH WEST

To be appointed (currently
with Great Western, Code 08)

LEAs

Cornwall, Devon

Code 04

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LEAs

Birmingham, Coventry, Dudley,
Hereford/Worcester, Sandwell,
Shropshire, Solihull, Staffordshire,
Walsall, Warwickshire,
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Code 13

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