

BOX OF TREASURES
USING THE SOFTWARE IN THE CLASSROOM

4MATION EDUCATIONAL RESOURCES

IDEAS AND SUGGESTIONS

SECTION 1 COMPUTER

1. THE ADVENTURE 2. BLANK 3. MAKE-A-BOX 4. BOX DRAW 5. CREATE

SECTION 2 AUDIO

1. THE BOX OF TREASURES 2. ALLY'S WONDERFUL BOX 3. PROBE 9

COVER DESIGNED WITH 'BLANK'

CONTENTS

2. Introduction
4. In the Classroom
6. Our Experience With *Box of Treasures*
10. Using *The Adventure*
11. Using *Blank*
17. Using *Make-a-Box*
19. Using *Box Draw*
21. Using *Create*
24. The *Box of Treasures* Story
27. Ally's Wonderful Box
29. Probe 9
31. Appendix A Using *Blank* to Make *Concept Keyboard* Overlays
32. Appendix B Using *Blank* to Make Grids

INTRODUCTION

BOX OF TREASURES IS NEITHER A COMPUTER PROGRAM NOR A SUITE OF PROGRAMS. IT IS A RESOURCE PACKAGE CONTAINING A NUMBER OF ELEMENTS RELATED TO THE THEME OF BOXES. TECHNO-FREAKS AND MACHINE-HEADS PLEASE NOTE THAT THERE IS MORE IN THE BOX THAN A COUPLE OF FLOPPY DISCS.

★ ★ ★ ★

The original idea came from Andrew Vasey, a teacher in Skegness, who had found that an empty box could be used as an exciting stimulus to children's writings when they were asked to imagine what would be revealed if the box was opened. He thought that the micro could possibly be used to allow children to design their own boxes by choosing from a number of options and then to consider other aspects of the box by being asked a series of questions. The result was MAKE-A-BOX and some examples of children's imaginings which Andrew persuaded the authors to forfeit.

Obviously this program was insufficient on its own and I decided that I would produce a package which would be related to the central theme of boxes.

Dave Cowell, an advisory teacher for micros in Devon, was asked to write a story about a box of treasures and it is his story (with a little Matson padding) which is on the audio tape. The BOX OF TREASURES ADVENTURE was very loosely based on Dave's story.

The other three programs followed. BOX DRAW was a fairly logical concept for inclusion in the package. I thought hard about whether to include BLANK. Was it sufficiently related to the boxes theme? I decided that it was on the grounds that record sheets, forms and so on do require information to be placed in 'boxes'. Besides which I considered that a BOX OF TREASURES ought to contain some 'valuable' items and I could envisage a 'form-processor' being quite useful to both teachers and children. But what about CREATE? I admit it, the program has very little to do with boxes, although it could be argued that designing the graphics does require the filling-in of little boxes. It was included as a 'treasure' in itself and also as a medium for children to create interesting stories related to the theme.

I wrote PROBE 9 and ALLY'S WONDERFUL BOX not as 'fillers' but as useful resources to be used either in conjunction with, or independently of, the software. Children are stimulated by audio stories and the advantage of audio over video is that they are forced to paint their own pictures.

There are several examples of children's work and I must stress that they are not 'the pick of the crop'. Given the right conditions children's imaginations can shame those of most adults. Unhindered and unhamp-ered by the strange and restrictive rules of 'the big people' ('*you must never start a sentence with BUT and I've told you before that a Proper Noun needs a capital letter*') children's imaginations can stretch to vistas way, way, beyond the limits of our feeble mind fumbings. BUT (tut, tut). I wonder how many teachers take advantage of their children's own ideas in the organisation of thematic activities. So the examples are there both for the benefit of teachers and children, not necessarily to be improved upon by your class but perhaps to sow a few seeds.

The other major ingredient in the package was the pair of project books (with apologies to the Aussies because their concept of 'the project' is not quite the same as that of the Poms). If the micro is to be integrated into the classroom then it is important that it does not become the centrepiece of all activity. I hope that if teachers are going to use this package to the full they make as much use of the project books as they do of the other elements. I am always saddened when I see children 'having their turn' at the computer and then 'going back' to whatever it was they were doing before. BOX OF TREASURES gives teachers no excuses for using the computer on its own. And if your school is one of those where all the computers are in their own special room, and programs are used in complete isolation, then you're probably going to consider that this package was rather expensive.

Mike Matson

IN THE CLASSROOM

Perhaps as recently as two years ago many teachers would have wanted a numbered list of things to do in order to get started. In many classrooms things have changed, which is just as well because such schedules don't always work when individual teachers have different ways of going about things and there are so many physical factors to take into account such as room size, class size, timetables, computer availability, and the outside pressures to get down to some real work, whatever that may be.

The world is changing and, despite the efforts of many people to keep things the way they are, will continue to change. The whole nature of employment is undergoing a dramatic transformation as 'human-machine' jobs disappear, new-technology openings appear and a large percentage of work-eligible people are left stranded between the two. The uniformity of the mass society is being eroded as technological innovation allows greater individual freedom and, indeed, demands creativity and inventiveness above all else as a crucial element in its evolution. If the purpose of the school is to prepare children for the world in which they are going to find themselves then the school must place much more emphasis on the development of individual children's talents, on the stimulation of their imaginations and on the nurturing of their creativity. Gone are the days when all that was required of the teacher was the production of a set of young 'workers' each one conforming as closely as possible to a defined set of standards to ensure that they could slot into the niche awaiting them outside.

The nature of the BOX OF TREASURES package does allow a great deal of flexibility. Just because you've purchased the complete box does not mean that every item contained therein has to be used by you right now. There are other days, other classes and other teachers. Certainly you will not get far if you open the box in front of a class and hope to make an immediate start. Please find time to examine the whole package and then think how YOU can best make use of it.

The ideas in this book relate specifically to the use of the software element. Whether you use all five programs and the three audio productions as part of a term's work on boxes or whether you just allow children to write animated stores with CREATE is entirely up to you but there is scope in the package for you to encourage creativity and imagination, discussion and communication, resourcefulness and problem solving, all of which are going to be increasingly important as we move towards 'the new age'.

The section which follows was the response from two teachers in a Melbourne primary school who were given the opportunity to use the ADVENTURE and CREATE (with a minimum of documentation) for a fortnight. The children had, until that time, had experience with Apple computers only. They were lent a BBC machine and left to get started on

their own. Within a matter of days the classroom had been completely transformed into the world of the adventure. Every wall had become a castle wall and within the classroom small areas had become the locations which are visited in the adventure. At each of these locations activities had been set up relating to the adventure, for example: at THE TWISTY MAZE the children created mazes using LOGO on an Apple computer. Several weeks after the fortnight was ended the school was still being visited by children and staff from other schools. To the class teacher an integrated approach was nothing new: what was new for him was using the computer as a starting point.

OUR EXPERIENCE WITH *BOX OF TREASURES*

Ian Dawes and Terry Robertson, Maribyrnong Primary School, Melbourne

Many teachers have difficulty in coming to terms with how to use computers in the most effective way. Before using this package we had a very narrow outlook on computer applications in the classroom (eg drill and practise and limited word-processing); in fact the computer teaching and directing children with little input from the teacher.

Through our exposure to this package [*in fact only a small part of it but they didn't know that*] we saw a completely new approach where the computer supplied the fantasy/stimulus while, more importantly, leaving completely open the ideas for the application of this program within the classroom.

If you are looking for a program to 'mind' the children this package is not for you. On the other hand, if you believe that teachers' ideas, organisation and planning are essential to successful education then this package has a lot to offer.

The exciting part about the package is that it provides enormous flexibility (through individual interpretation) for both teachers and pupils. Therefore the same package may be used for many themes using many different approaches. Lack of creativity and imagination are the only barriers to a successful and enjoyable educational experience.

The package was used with a grade five/six class. The policy of the school is based on a thematic approach to learning which complimented the package ideally. Many of the activities used were based on reading schemes etc. already in the school. All areas of the curriculum were covered.

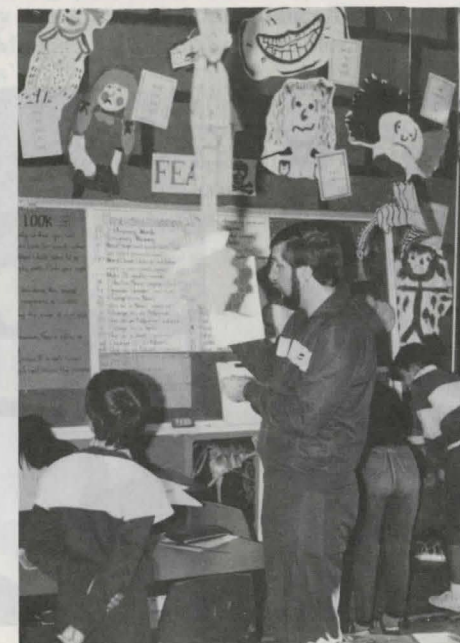
★ ★ ★ ★

We had an introductory discussion with the children about how to use the adventure independently. This was followed by a teacher-motivated introduction to setting out on an adventure to find the contents of a mystery box hidden in a far-off land.

The children, in groups, then set out on the adventure. After successfully entering any location they then moved to a table which contained activities related thematically to the location which had just been entered. When these activities were successfully completed the group received a clue to what was in the box.



Every wall had become a castle wall . . .



Lack of creativity and imagination are the only barriers . . .



Friends of Yil?



Flotation trials in 'The Deep'



The Wizard watches writers in the Woods

The following are examples of the classroom activities which were related to specific locations within the adventure:

SNAKY RIVER — cinquain poems, constructing mobiles, jumbled snake words, snake jokes.

WOOD-IN-THE-MISTS — make a crossword using a 'spooky picnic' theme

DRAGON HILL — reading a dragon story and poem, changing the key words of a poem to create a new poem (cloze activities)

LITTLE BOXWICK — financial problem solving using the Apple program 'Lemonade Stand'

THE NIGHT MARSH — using tangrams and pattern blocks to construct characters

EAGLE CRAG — listening skills, deciphering morse code messages on an audio tape, using other sorts of codes

TWISTY MAZE — LOGO, mapping skills, make a map with a hidden treasure, list instructions for finding the treasure

THE DEEP — buoyancy experiments, resistance of various shapes moving through water, timing movements through water

CROOKED TOWER — illustrating sayings related to fear eg "as white as a sheet", modelling

STONE CIRCLE — listening to a telephone conversation on an audio tape and answering questions about it

Additionally we pursued some dance/drama activities using such stimuli as Michael Jackson's "Thriller" and the music from "Ghostbusters".

During the time spent on the theme the children were asked to keep a diary of their adventure. The format of the diary was entirely up to the children but many used CREATE. The format of the word-processor with the large, coloured print, coupled with the graphics and animation capabilities, was both exciting and rewarding for the children.

USING THE ADVENTURE

Age suitability

A pre-school child can proceed through the adventure as long as he/she understands what is written on the screen. If the child cannot read then someone else has to do the reading. Slightly older children may require some help with the reading. The adventure word list is provided to assist with the typing in of responses.

Adventure word list

The card lists only the words which have to be typed at the keyboard. They are written in both upper and lower case because the keys are in capitals but the letters are in lower case when they appear on the screen. The other inputs consist of either *yes* or *no* (which may be abbreviated to *y* and *n*), a single numeral, or the number 444444.

Keyboard time

As there are no 'sticky ends' to come to and no being sent back to the beginning the adventurers will either stay at the computer until they have finished or until some pre-arranged stage or time is reached. If it is decided that a time limit will govern the length of a session it is rather frustrating for children to have to stop when they are about to make a wonderful discovery. There is a 'number of visits' counter built into the adventure. When ☐ is pressed (when a location name is in red) a number appears on the screen and refers to the number of times that a 'stay' has been chosen (ie the number of times ☐ has been pressed successfully). You may decide to make use of this counter by telling children that they may make x number of visits before their session ends.

Suggestions

For a complete list of ideas see the separate ADVENTURE PROJECT book.

Children should be persuaded to keep a careful record of all that happens, their discoveries etc. In addition they should be encouraged to use their imaginations and ask questions as they travel through the land of the adventure. *Why has Yil only one eye? How did the sailbird lose a feather and why is it so important to her? What are those creatures doing racing through the sea? How did Henry come to be a prince?*

Once the children have come to the end of the adventure there are many other things they can do. They will almost certainly find the actual ending a little frustrating or annoying: they can, of course, improve upon the author's ending by writing one of their own. By making use of the 'number of visits' counter children could be asked to try the adventure again to find the minimum number of visits required to get to the end.

USING BLANK

Why use BLANK?

There may well be some merit in allowing children to use BLANK just for the experience itself but a great deal more benefit will be derived from it if the children actually have a real reason for designing forms. As part of a sequence of 'design' activities the program could be used to give children experience in Computer Aided Design techniques. BLANK was conceived, however, as a tool to be used only when there is a genuine need for forms to be created. Indeed it was originally thought that teachers would be more likely to make use of it than children.

Age suitability

The younger children are unlikely to be able to use this program effectively but children aged nine and upwards should be able to cope with it. Obviously the degree of sophistication of completed 'blanks' will be dependent upon age and ability.

Keyboard time

This depends very much upon the nature of the form being produced. A simple grid consisting of a number of evenly-spaced horizontal and vertical lines will take no more than a few minutes. If several forms are being designed they may be saved on disc and printed later. If a complex form is being produced the total time taken to design and edit it may well run into hours. To save time children should have a rough copy of their form on paper first.

Suggestions

1. Allow one or two children to become the BLANK experts in order to help other children when necessary.
2. Collect 'real-life' forms to see how they are designed — examine their ease of use and suitability (eg often there is insufficient space for long names or addresses) — question why modern society needs so many forms — try to improve upon them.
3. When children are collecting data they often write the information down on a sheet of paper with the emphasis being placed on the collection of the data and its subsequent processing — BLANK allows children to put more thought into the type of blank sheet required to make the data recording easier — they should be encouraged, therefore, to see the data-sheet design as being an important activity in itself, particularly when the sheet is to be used by someone else.
4. Allow children to produce forms which can be used in the display of their work eg small charts and tables.
5. Simple plans are possible eg of a classroom, school or neighbourhood (as long as vertical and horizontal lines only are required) — mazes may be designed but if complex designs are required this activity may be applicable only to BBC B+ users.

6. Use the example called GRID to produce picture-planning sheets for use with CREATE.

7. Produce grids for other planning activities such as those mentioned in the project books.

8. Design and produce questionnaires but be aware of the text limitations in the BBC B version — if a great deal of text is required it can always be printed separately, then 'cut and pasted' to produce a sheet ready for photo-copying.

9. Use BLANK as a text only tool (but using lines to embellish the text) for the creation of labels, headings, titles etc.

10. Use BLANK yourself for a whole variety of printed products which require a 'professional' appearance — the program was found to be extremely useful in designing much of the rough draft of the package documentation eg the disc labels, the maze plan, the Adventure solution chart.

11. Look at the examples in this book and on the cover for some more ideas.

12. See Appendix A for information about making *Concept Keyboard* overlays.

<h1>AN IMPORTANT MESSAGE</h1> <p>FOR ALL</p> <h2>HEADS AND PRINCIPALS</h2>		<p>"It really works." A.J.Smith (Hotts.)</p> <p>"A worthwhile buy." Q.T. Zimmer (G.D.R.)</p>
<p>*****</p>		
<h3>UPGRADE YOUR SCHOOL NOW !!!</h3> <p>"TEACH 'EM ALL" REPLACES TEACHERS</p> <p>Years of research have gone into the production of this ultimate suite of computer programs.</p> <p>"TEACH 'EM ALL" is guaranteed to teach your pupils everything they need to know!</p> <p>Tables, spellings etc.</p> <p>You name it -</p> <p>"TEACH 'EM ALL" will teach it!</p>		<p>Cut out and send to: Dept.4, Nutt Hse., The Avenue, Cheltenham Spa, Glos. U.K.</p> <p>Please send me _____ copies of "TEACH 'EM ALL" at A\$ 99.95 each.</p> <p>NAME _____</p> <p>ADDRESS _____</p> <p>Cheque enclosed for _____ or charge my card no. _____</p> <p>Signed _____</p>

CLASS	NAME									
	09.10	09.50	10.30 10.45	11.30	12.15	01.15	01.50	02.30 02.45	03.15	03.45
MON										
TUE										
WED										
THU										
FRI										

CERNE SYSTEM TELECOM [CST] HW 09432 ek ZZ22ZZ;

Linking worlds is our business .1 <<<<ELMESSAGE>>>> .0

CST, Suite 9, Level 63zB, Uio Complex, Zone MAJ-39:n4:X
Tcom: 1A1A1A TI:001-444-444 Tv:A636363 EnqCom:HELP1

TO: name _____ code _____
SENDER: name _____ code _____
MESSAGE: _____

x1000 1 2 3
CHAR RATE ☐ ☐ ☐

THE HAUNTED HOUSE
by
JARR PATEL

BOXES EXO B
M.M.

WE GREW THESE
BEANS

<<<<<KOALAS>>>>>>

EXIT ---->

OUR SUMMER POEMS
* Class 5 *

Today's Weather :

HANDY CROSS ANNUAL GALA Date: _____

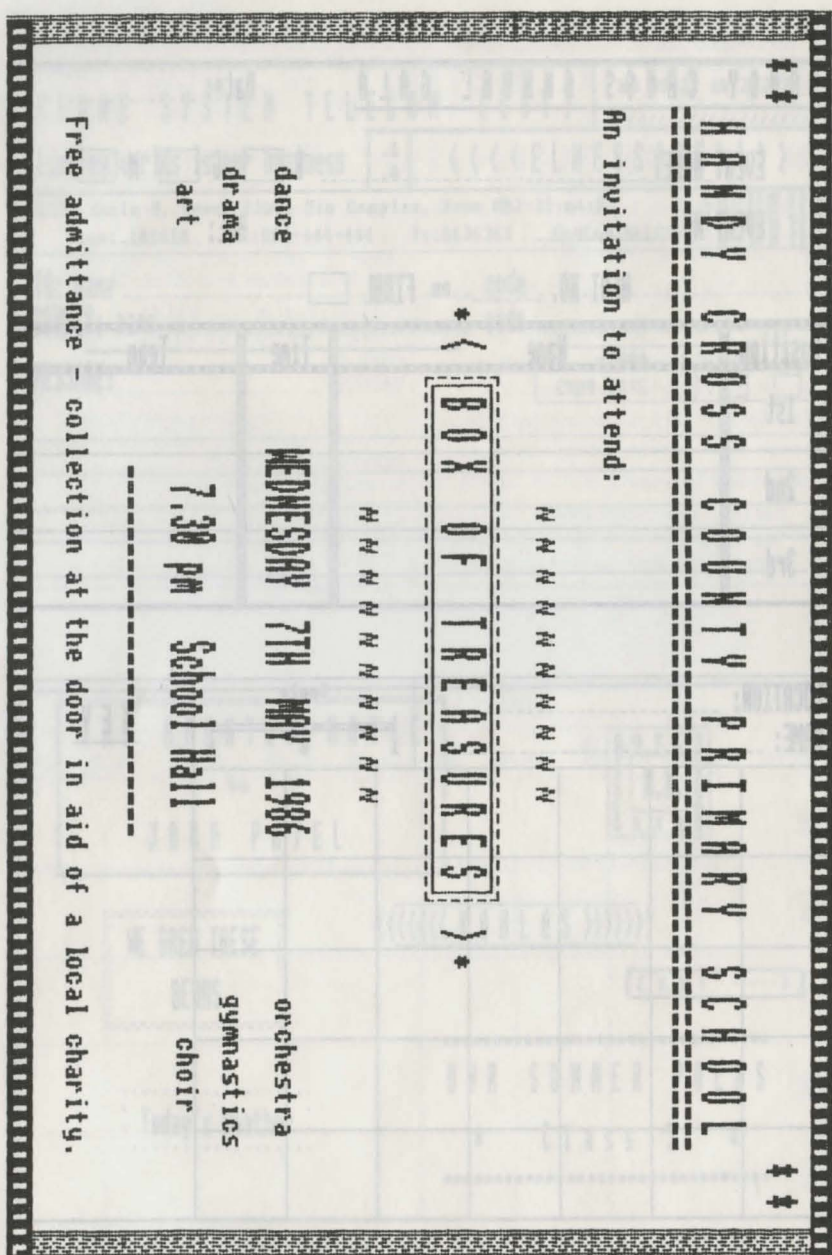
EVENT NAME: _____ B ☐ G ☐ M ☐
EVENT NO. _____ AGE: _____
HEAT NO. _____ OR FINAL ☐

Position	Name	Time	Team
1st			
2nd			
3rd			

LOCATION: _____
NAME: _____

Scale
1 0 1

KEY



USING MAKE-A-BOX

Age suitability

Even the very young child should be able to make use of this program. It may not be possible for a five year old to sit at the computer and produce a box immediately but, having received a little guidance initially, he/she should be able to make the necessary choices without being able to 'read' the questions being asked. As for the text input part at the end why not give the child some help by acting as a scribe or persuading someone else to be one?

Keyboard time

For those situations where computer time is at a premium this program should cause no problems because many members of a class could take their turn during the average class session. But if it is going to be used as an activity in itself with no associated 'work' away from the keyboard then its educational value is likely to be minimal.

MAKE-A-BOX as a starting point

Whether or not you are participating in a full scale 'boxes' project MAKE-A-BOX was designed to get children thinking about different sorts of boxes and their contents. Of course it can be done without a computer but this program provides just one more dimension to any set of box-thought-provoking stimuli.

Suggestions

1. Put a box on a table, ask children to describe it (perhaps using a 'telephone'), and then get them to think about how it differs from other sorts of boxes.
2. Ask questions about the possible contents of your example box before children design their own.
3. Provide materials for children to illustrate their own boxes, special boxes perhaps.
4. Using the program children can make the box which is going to feature in their story, or adventure, or play, or song.
5. Allow children to compare the boxes which they have made. They are all either square or rectangular-based. Can boxes be any other shape?
6. The number of boxes which can be produced by MAKE-A-BOX is restricted. Think of other options which could have been offered in the program to make a greater range and variety of boxes.
7. Calculate how many different sorts of box are possible with the program. For the really-capable suggest that they take the colour options into account as well.

8. When writing on the box label it is possible to combine letters, numbers and the other keyboard symbols to make new characters. Get the children to design boxes from other countries or worlds. Ask them to think about the uses other people or aliens would have for boxes.

9. At the end of the program is a series of questions which attempt to establish that the box is special. It is owned, it is used to keep things in. Children could consider the differences in value between different sorts of boxes. Some are thrown away immediately, some are used temporarily and some are treasured. Do all people have the same set of values?

10. Having made a computer-designed box allow the children to construct a scale model. Younger children could disguise a ready-made box whilst older children could construct their boxes from scratch.

USING BOX DRAW

Age suitability

If young children are shown how to use the more rudimentary facilities of the program they will be able to draw the shapes and use the colours. The scale change, editing, and saving and loading facilities will be more applicable to older children.

Keyboard time

This is very much a matter for individual teachers as the program is of an open-ended nature. A child (or group) may spend a few minutes or a few hours depending upon circumstances, age, and so on.

The program

Many children are frustrated by their inability to manipulate a pencil or brush as easily as they would like. Using this program, with its rather simple drawing facilities, any child who can press keys is able to produce a picture on the screen. The computer takes care of the drawing allowing the child the necessary freedom to concentrate on the design aspects of the picture.

Many teachers (especially LOGO enthusiasts) will be aware that there are two schools of thought concerning open-ended programs: one stresses that children should be allowed to discover for themselves what the program and they can do in partnership whereas the other believes that a certain amount of direction is necessary if children are to make the most of the experience. How you use BOX DRAW with your children is up to you.

You may find that the program is best made available at odd times for children to 'doodle' and experiment or you may decide to challenge the children by asking them if they can, for instance, design an animal or a building or a car. However you use the program you will find it worthwhile to allow children to see each other's efforts as this is rewarding for the artists and educational for the viewers.

Suggestions

1. The program draws by using a box shape as a starting point — get children to look around them and discover how many box shapes they can identify.
2. There is one shape, the circle, which is absent from the program but very much in evidence in the real world (or is it?) — let the children go on a circle hunt — is it as easy to track down as the rectangle?
3. By changing the background colour the foreground colours often appear to change as well — investigate colours (both with and without the program) to see how colours appear to affect each other.
4. Think about choice of colour in everyday life — ask the children to think of examples of people planning which colours they will use eg flowers, clothes, interior decoration.

5. Allow children to use the program to produce pictures associated with other class activities — submarines, robots, spaceships, houses, machines, animals.

6. Scale in maps and plans — what is scale? — use the 'Change size' facility to experiment — think about what sorts of scale would be difficult in real life (eg a road map on a scale of 1:10).

7. A shape drawn and then enlarged several times disappears off the screen — its dimensions double each time — get children to calculate how large a screen would have to be to accommodate a shape increased x number of times (warning! the dimensions can become quite excessive).

8. Areas of rectangles — if a rectangle's dimensions are doubled by how much is the area increased? — what does "twice as big" actually mean?

9. BOX DRAW allows boxes to be halved to make right-angled triangles — investigate triangles, their dimensions and relationship to rectangles — if a rectangle is drawn, doubled in size and then half of it filled in what relationship is there between the original shape and the resultant triangle?

10. If you have access to a printer make displays of printed pictures/designs, perhaps combining small pictures to make a larger one.

USING CREATE

Age suitability

The text part of CREATE can almost certainly be used by any child who is capable of stringing letters together. There are those adults who lament that upper case characters on a computer keyboard confuse young writers but it is probably true to say that if any problems do occur it is only in classrooms where teachers are convinced there will be problems. Children who don't know that upper case letters will give them headaches don't seem to need any aspirin. Certainly the pressing of a key to write a letter is a whole lot easier than manipulating a stick of wood.

The graphics part is possibly more difficult for the very young but there is no reason why an adult (or older child) should not perform the necessary functions to present the blank grid and then assist with the addition of colours etc. When pictures are being added to a story the whole class could offer editorial opinions whilst the teacher copes with the technical/mechanical activities.

Keyboard time

To achieve anything worthwhile with CREATE is going to require a considerable amount of time at the keyboard. In the computer room, of course, this is not a problem, but if the creative activity in the computer room is going to be totally divorced from the normal classroom activities then the educational value of using the program is reduced considerably.

The way in which CREATE is used depends very much upon individual circumstances, priorities and requirements. If you believe that it is not 'immoral' for a group of children to spend a day, or two days, or a week pursuing a goal then you will be quite happy for CREATE to be used by a small number of children for a lengthy period. If, on the other hand, you prefer children to use the computer for shorter lengths of time you can always allow them to save what they have done in order to continue at some time in the future. There is no reason why you should not limit a writing session to the creation of a single page.

Word-processing

CREATE may be used as a complete activity in itself. Certainly it does offer an introduction to elementary word-processing; the colours, large text and the option to use lines being an attractive alternative to the more 'professional' word-processors with their lack of colour, small text, and an intimidating emptiness even when children have been feeding them words for what seems like hours. With CREATE a child (or group) can complete a page in a relatively short space of time and have something to show for their efforts.

Co-operation

It may be tempting to allow children to write their stories on paper first in order to minimise the computer time. You may wish to offer a CREATE session as a reward for deserving children — which is fine as long as it isn't always the same children who get the reward. Do consider, however, that the public (on-screen) display of a story being written and illustrated does permit the creation to be a co-operative effort. A paper-based story does not lend itself to team work because it is difficult (a) for everyone to see what has been written and (b) to make the alterations which are bound to be suggested. An on-screen story is easily read, re-read and edited.

Each page is an end in itself

CREATE should not be viewed as an electronic simulation of a long sheet of blank paper or even an exercise book (which is really only a long sheet of paper conveniently re-designed). Rather it should be seen as a series of blank boards (or even black boards) which are going to be seen consecutively.

There is no page-wrap in CREATE so that text pushed off the bottom of one page does not appear on the next. For that reason each page may be viewed as a self-contained display rather like teletext pages on TV. Children should be encouraged to make each page appear attractive in its own right rather than try to get to the end of the story as soon as possible. When they are editing they can certainly make alterations to individual pages but it would require a great deal of effort to shunt the text through the whole length of the book if it was decided to insert a completely new paragraph on page 1.

When CREATE was designed it was envisaged that children would design a picture page to accompany each text page. This, of course, does not restrict the length of a story to 12 pages of text because a set of 12 pictures can be used in a number of different ways to produce many more picture pages. When they are writing a text page children should be aware that a picture is to follow and end the page accordingly so that the picture appears on cue rather than be out of step with the narrative. They do not have to fill each page with text: on the contrary it makes life far easier for them if they do not attempt to fill the page because there will then be room for manoeuvre when they wish to edit the writing later.

Viewing CREATE as a series of screens rather than a continuous sheet does provide a slightly different concept of story writing when compared with the traditional approach. In many ways it is akin to paragraphs, something which children seem to find terribly difficult. Indeed it would be rewarding to find out that having used CREATE children found that paragraphs made more sense. Additionally the more modular concept does lend itself to some slightly different organisational approaches.

Some practical suggestions (at last)

1. Allow the members of a group to design a picture on their own (either on paper or using CREATE) and then bring their pictures together to discuss and create a story which would combine the different pictures.
2. Let three groups of children produce different parts of a story. One group could be the story authors who would pass their work on to the artists who would, in turn, produce the illustrations and hand everything over to an editorial group who would combine the words and pictures. Or start with the pictures. Or let all three groups work at all three activities in turn.
3. Allow one group per day/week/month an extended period at the keyboard while the rest of the class are using other media.
4. Let the artists in your class produce picture sets which can be borrowed by the less-artistic individuals or allow the artists to illustrate an author's work.
5. Simulate a publishing company. Someone has a good idea for a story. The company commission an author and an artist. Someone designs a jacket. An advertising department plan a publicity campaign.
6. Look at comics and cartoons. Find out what makes them so attractive. Try a similar sort of thing with CREATE.
7. Get a child who seems to have the knack of producing CREATE graphics (or any other sort of graphics) to hold a workshop for other children.
8. Use the GRID supplied with BLANK to provide a graphics planner which can be photo-copied for children to plan their pictures.
9. Hold 'meet the critics' sessions occasionally when the authors of stories can display their work and hear the other children's comments.
10. Think of applications for CREATE other than the creation of stories. Ask children for their ideas. How about the week's news, stories generated by the 'boxes' theme, a record of an educational visit, an animated sports report, an alternative school prospectus or, if you're really silly, an album portraying the members of staff.

THE BOX OF TREASURES STORY

Duration: 10 minutes

Age suitability

The story is probably more suitable for older junior children especially if it is to be listened to 'at one sitting'. Younger children could certainly appreciate some parts of the story. To some degree it is aimed more at adults than children.

About the story

The *Box of Treasures* story was written as a starting point for the adventure. There are sufficient links between the story and the adventure for the audio to be used in conjunction with the program — either before the children attempt the adventure or afterwards.

There is a subliminal theme to the story concerning a child's notion of the differences between children's and adults' (Elders') views of reality and priorities in life. This theme was intended to remind teachers that children do see things differently, that they do possess rich imaginations which can either be squashed or cultivated by adults, and that the importance which adults attach to certain things may seem totally incomprehensible and ridiculous to The Child Person.

Suggestions

1. The story contains a number of graphic descriptions:

It was one of those special mornings — a magical morning when the mist gently wrapped itself round the hilltops and stealthily crept along sleepy valleys. The first gleams of sunlight caressed the beads of moisture balancing on the blades of grass and turned them into miniature fires. Later on, as the sun rose higher in the cloudless sky, the mist began to vanish and rays of sharp light stabbed through the trees like giant fingers trying to feel the leafy carpet beneath.

Having listened to a descriptive passage children could be encouraged to write their own descriptions either as an exercise in itself or as a part of their own story.

2. The story is enhanced by the addition of music. In the classroom children could select music to be played as an accompaniment to the reading of their own stories. If you have suitable recording equipment the two could be combined.

3. Provide opportunities for children to create their own accompanying music for stories.

4. The story features The Place:

This was a special place, a place of mystery, a place of silence, a place where few people ever came.

Children might like to describe their own special places. Those who don't have one could imagine one — even an old blanket thrown over a couple of chairs can become a special place when you crawl inside.

5. Who or what is *The Watcher*?

When The Elders had been asked about The Watcher they had said, "It's your imagination" or "Don't be silly."

6. *Imagination* — how important is it?

When asked about imagination they laughed and said, "You're too young to understand," but the Child Person had ideas about imagination. Imagination, the Child Person thought, is a free idea, a thought that can do anything. Some people can capture those ideas for ever by writing them down or turning them into pictures.

Ask children to discuss (and list) the qualities which **they** think will lead to success at school, a good job, or happiness and contentment. How does imagination compare in importance with spelling, handwriting, numeracy, for example.

7. Many of the locations in the Adventure appear in the story. Children may listen for, and try to identify, those places.

Approaching the woodland along a narrow path the Child Person moved with increasing caution.

The Child Person moved quietly and slowly to The Place.

A magnificent castle with dozens of pointed turrets was standing white and proud where the house should have been.

Outside an ancient gate barred the way to all foot travellers . . . in front of the gate a solitary guard marched back and forth . . .

On another occasion the giant sailbird had swooped down and picked up the Child Person to visit far-off places.

On the other side of the mountains the sailbird glided across a vast expanse of marsh and landed by the crumbling walls of an ancient city.

The narrow streets of the city resembled a maze and the sailbird told of an evil wizard who was said to lie in wait for unsuspecting travellers.

Looking down the Child Person saw a vast ocean known as The Deep. . . . on the far coast were stone circles, ancient woodlands and strange buildings with crooked towers.

8. The guard spends all his time marching backwards and forwards. Does he dream? There are many jobs in which a monotonous activity plays a large part. What would the children dream or think about if they were in such a job?

9. *On the far coast were stone circles, ancient woodlands and strange buildings with crooked towers. These would have to wait until another day.*

Children could imagine that it is *another day* and they are able to visit these other places.

10. It is worthwhile asking children to (a) talk about how they view adults and (b) imagine themselves as adults talking about children.

"The trouble with The Elders," thought the Child Person, "Is that they forget all about childhood. To them the world is no longer a wonderful, exciting place to explore but a dull, uncomfortable prison in which to waste their last remaining days worrying about things of no

importance. Will I ever be an Elder? I wonder. Well if I am I won't forget. I will always come back to this place even when my legs are too old to carry me here."

Many children worry that when they become adult they will no longer want to play with model railways or collect stamps or read comics. Do they think that adults lead dull, uninteresting lives? Are they looking forward to becoming adults?

11. The box of treasures is really an apple box, the sword an old poker, the sailbird's feather a hen's feather and the magical cord a piece of string.

Ask the children to think of ordinary objects which are special to them. Children's pockets are often crammed with all manner of junk the value of which is made apparent when a parent throws it away prior to using the washing machine.

12. At the end of the story the Child Person waits to hear "*the heavy wingbeats of a huge beast. The dragon maybe — or would it be the unicorn this time?*"

Children could imagine that they are the Child Person. Which creature would they wish for? Where would they hope to go? Let them write their own adventure story.

ALLY'S WONDERFUL BOX

Duration: 15 minutes

Age suitability

Five year olds should be able to appreciate the humour in this 'fairy tale'.

The characters

Ally	Narrator
Old Cyril	Handsome Prince
Dragon	Tim

About the story

The story was intended as a satire of a 'traditional' type of fairy story; the princess hates frilly frocks, the wizard is incompetent, the handsome prince is accident prone, the dragon is a softy and the narrator ends up imprisoned in a box.

Alice ("if anyone calls me anything other than Ally they know what they'll get!") is a princess who has little regard for the finer aspects of royal etiquette. She enjoys adventures and hates washing. The narrator becomes involved in the story and, at times, it is difficult to decide whether he has any control over the events which he is relating.

Ally persuades Old Cyril, the local wizard, to give her a magic box. She doesn't have the chance to use the box because a friendly dragon arrives and carries her off to zoom three times around the world before bed-time.

The box is left behind in the studio where the story is being recorded. The narrator gives it a little rub.

Suggestions

1. Ally tells the narrator:

I want to have an adventure with dragons and magic and lots of mud and fighting and staying up late and not getting out of bed and standing on a cold floor.

What would you choose as the ingredients of an adventure?

2. If it was possible to be given a magic box what sort of magic would you like it to have? What would you want it to be able to do?

3. Cyril's magic spells are not particularly inspiring:

*"Ally, a pretty little petal is not
But a whole load of magic I've got
So ippy wopsy tooti frooti
Make her into a stunning beauty."*

Ask children to compose their own magic spells. Perhaps it would be possible to produce a book of spells (and recipes for potions) to give to Cyril.

4. The characters in the story are not described in any great detail. Children may like to describe and illustrate the characters, and some of the scenes, as they imagine them.

5. Dragons in stories are usually quite ferocious. Ally's dragon is not quite so aggressive. Children could tell the dragon's story, explaining why it is so timid and easily frightened.

6. At the end of the story:

It was the dragon's turn to feel sorry for Ally. "Hey," it said, "I've got a wonderful idea. Why don't you come and have an adventure with me. I can take you anywhere in the world. Why, we can fly through a thunderstorm, dance on a mountain at sunset and even zoom three times around the world before bed-time. Would you like that?"

Let children put themselves in Ally's position. Where would they ask the dragon to take them? What sort of adventure would they like to have?

7. The story contains a number of paradoxes and minor mysteries. Children may be able to spot them. For example:

Which of the characters, if any, were real?

Was there a story within a story?

The narrator appeared to be in control (eg when re-starting the story and telling everyone to get a move on) but if that was the case how could he become trapped inside a box which was the product of his own imagination?

Who created the dragon — the wizard or the narrator? If the narrator created the dragon why was he unable to fly away with Ally?

In the studio at the end of the story Tim remarks that Cyril's box has been left behind. How could an imagined box or a magicked box exist in the recording studio?

8. The story has a twist at the end when the narrator becomes trapped inside the box. Ask children to think of other stories with twists or invent their own.

9. Stories about princesses, handsome princes, wizards and dragons are usually fairly predictable. Children will enjoy making satirical alterations to well-known stories. They might like to compare this story with the Adventure in which a wizard turns a frog into a handsome prince.

10. Whatever happened to the prince's horse? Did it go off and have an adventure of its own?

11. Ally is portrayed as a rather selfish person at the beginning of the story but when she meets the dragon she undergoes a change. Is the change temporary or permanent? Children could write stories in which someone nasty becomes someone nice.

PROBE 9

Duration: 30 minutes

Age suitability

Although suitable for all but the youngest children the length of this story requires that it should be listened to in instalments. It is always advantageous to pause every so often to give children a chance to talk about the story so far and to check that they are following the plot.

About the play

The action takes place on a distant world although it is not immediately apparent to the listener that the world is not our world and the characters are not human. The intention is that the children should identify with the aliens and then regard the human visitors as the intruders.

Two children find a strange box which, unbeknown to them, is a probe or surveillance device which has been planted by human explorers. For some reason the device has a 2-way effect causing the children to imagine that they are on board the human's space craft. Their father, upon hearing their strange tale, sends them to a doctor. Dr. Zwimba's initial scepticism about their story vanishes when he handles the box.

Following a meeting of government officials it is decided that the box should be destroyed. Meanwhile, on board the space craft, it is realised that the probe is 'misbehaving' and it is decided to recover it (at virtually the same moment that the inhabitants are about to undertake its destruction).

Suggestions

1. It is frequently the case in fiction that aliens are portrayed as an enemy force. In this play there are no hostilities but sympathy lies more with the aliens than the humans. Children could think of examples of books, films, TV programs and computer games featuring alien beings and find out whether aliens are more often shown as being 'nasties'.

2. Whilst listening to the play (a second time, perhaps) children could listen out for the clues which suggest that Tanyil and Casyo are not human. In their own stories they could leave a trail of similar clues.

3. On Widger II buildings are organically grown. Do any of the inhabitants of Earth grow houses or make use of building materials derived from plants? Children could design their own 'grown' homes and/or imagine that they are professional home growers describing their work.

4. Rollers, skitter bugs, loobies and tickle grass are mentioned in *Probe 9* but they are not described in any detail. An illustrated book of the flora and fauna of Widger II (with extra plants and animals of the children's own imaginings) could be produced.

5. The 'wagtails' or Widgerites are described in some detail but children's own ideas would provide a variety of descriptions and illustrations. What sort of people are they? How does their behaviour differ from that of humans? Are they 'nicer' than humans?

6. What is the work of a 'dreams doctor'? How many different sorts of doctors do we have on Earth? What different sorts of cures are there?

7. When Casyo and Tanyil find themselves in the space craft they have difficulty in describing what they see (due to the fact that they are the products of a 'natural' rather than a technological society). Placing themselves in the roles of visitors to Earth children could try to describe everything which they see around them perhaps in a letter to the 'folks back home'.

8. Ask the children to produce a tourist's guide to Widger II. What other places could there be besides *The Lake of Sad Tears* and *Moonset Peak*? How does the scenery on Widger II differ from Earth?

9. The government officials argue about the fate of the box. Set up discussion groups to argue the pros and cons of other important issues on Widger II. Should the inhabitants start to make weapons, construct brick homes, eat meat, drive vehicles etc.?

10. The captain of the space craft chastises a crew member for referring to the Widgerites as 'wagtails' and then promptly calls them 'wagtails' herself. Are all human adults guilty of saying one thing and doing something else?

11. Imagine the other worlds (a) dreamed about by Casyo at the end of the play (b) to be visited by the human explorers during the next few years.

12. The children tell their father,

We're doing quite well at school. Mr. Twizzler says that we're two of his best student in weather shaping and water divining. He told us that we could join the house-growing club a year early if we carry on doing so well.

School on Widger II is obviously a little different from school on Earth. Children might like to devise an alternative curriculum for their schools (they might even have a place for you somewhere).

APPENDIX A USING BLANK TO MAKE CONCEPT KEYBOARD OVERLAYS

The following procedure allows overlays for the A4 sized *Concept Keyboard* to be designed with *BLANK* and printed with *PRINTMASTER* or *DUMP OUT 3*. The parameters given were arrived at after trials with an Epson FX-80 printer. Other types of printer may require different parameters. An A4 overlay may be enlarged to A3 with a suitable photo-copier (perhaps at your nearest print shop).

1. Load *BLANK* and choose option 1 *Equally-spaced vertical lines*
2. Enter 9 as the number of vertical lines required
3. Hold down *TAB* and move the cursor to the left edge of the screen to mark the position for the first vertical line
4. To mark the last vertical line move the cursor right to 25 on the scale then, holding down *TAB*, move the cursor 2 more places to a position equal to 25.25
NB 8 cursor movements are equal to 1 unit on the scale.
5. Choose option 2 *Equally-spaced horizontal lines*
6. Enter 9 as the number of horizontal lines required
7. Hold down *TAB* and move the cursor to the top edge of the screen to mark the position for the first horizontal line
8. To mark the last horizontal line, if using *PRINTMASTER*, move the cursor down to 28 on the scale then, holding down *TAB*, move the cursor 1 more place to a position equal to 28.125
If using *DUMP OUT 3* move the cursor to 27.75 (ie 27 plus 6 small cursor movements)
9. Choose the last picture at the bottom of the screen in order to select option 2 *Dump form*
10. Ensure your printer is connected and switched on
11. If you are using *PRINTMASTER* enter as the dump command:

GDUMP 1 1 3 1

If you are using *DUMP OUT 3* enter:

GIMAGE EPS L V&100 H&A8 R1

NB For printers other than Epson see the *DUMP OUT 3* manual for the appropriate printer code to replace *EPS* in the command shown above

The resultant grid will fit half of the A4 *Concept Keyboard*. A full-sized grid may be made by either printing two halves and joining them or by photo-copying one half twice.

At the design stage the unwanted portions of any lines may be deleted but remember that if a middle section is deleted one end will need to be re-drawn.

If large text is to be added at the design stage the cursor should be moved to a point 7 cursor movements below a horizontal line before entering the text.

APPENDIX B USING *BLANK* TO MAKE GRIDS

If you are designing a matrix in which the lines form a grid of **squares** the following information may be helpful.

When a screen is dumped to a printer a certain amount of vertical squashing occurs. This distortion can be aggravating when you have spent some time ensuring that your on-screen squares really are squares only to find that the printed squares are not.

Normally it would be necessary to either use trial and error or else calculate the amount of squashing in order to provide a value by which all vertical lines would have to be increased. There is an easier method as long as (a) the grid is to cover the whole of the *BLANK* 'form' area and (b) the number of squares in each row is a multiple of 3 and the ratio of horizontal squares to vertical squares is 3:2.

To make a 3x2 grid choose 4 equally-spaced vertical lines and 3 equally-spaced horizontal lines. Ensure that the first and last lines are at the extreme edges of the 'form' area. Using *BDUMP* the resultant matrix will consist of 6 squares (although on screen the 'squares' will not be square).

GRID SIZE	VERTICAL LINES	HORIZONTAL LINES
3x2	4	3
6x4	7	5
9x6	10	7
12x8	13	9
15x10	16	11
18x12	19	13
21x14	22	15

If you are using a dump other than *BDUMP* these parameters are still applicable as long as the dump used produces forms in the ratio of 3:2 (x:y).

CLASS 9 TRAFFIC SURVEY		RECORD SHEET NO. _____
LOCATION _____		DATE _____
SURVEY TEAM _____		TIME from _____ to _____

VEHICLE	TALLY	TOTAL
CARS		
BUSES		
TRUCKS		
M/CYCLES		
CYCLES		
TOTAL NUMBER OF VEHICLES		

DUTY ROSTER		TERM _____ YEAR 19 ____	
-------------	--	-------------------------	--

	PLAYGROUND AM	LUNCH	PLAYGROUND PM
MON			
TUE			
WED			
THU			
FRI			