

- Enables children to understand:
 - the 24-hour clock
 - minutes to the hour
 - quarter past, half past and quarter to the hour

SPECIAL FEATURES

- Utilises a large and clear clock face to help children.
- An appropriate stage can be chosen at any time.
- Option to set 1 or 5 minute accuracy to retain the interest of children in the upper age group.
- Features full BES MONITOR facilities. Gives information on individual childrens' entries, allowing identification of problem areas.
- Complete with fully explanatory booklet.
- Widely used in schools.

Best suited for children aged 4 to 10 years.

TIMEMAN TWO

The program draws a clock and places a man halfway up a ladder. The program asks "what time is it?". If the child answers correctly, then the man climbs two steps up the ladder. When an answer is wrong, then the man goes down a step. The program tells the child what was wrong and gives the child another go. If the second attempt is wrong, then the program shows the correct answer.

When the child obtains sufficient correct answers for the man to reach the top, he dances a jig at the top and plants a flag. Each time he gets to the top he earns another flag.

The program has three stages for telling the time. The first stage deals with minutes to the hour, the second with quarter and half hours, the third introduces the 24-hour clock. Having learnt to tell the time, the program provides three similar stages to enable children to set the clock, in each case helping children when an incorrect answer is entered.

The program follows on from Timeman One, but can equally well be used on a totally independent basis.

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INTRODUCTION

The program has been designed to aid children to tell the time and set a clock. It is recommended for use with children of between 4 and 10 years old, and in situations where practice of these skills is needed. The option available (see 8) to choose time intervals of one or five minutes ensures that interest is retained even when using the program with children at the upper end of the age range.

The program is suitable for use by individual children or with very small groups. The design is such that whilst the child is given every opportunity to understand the concepts through deduction and feedback on his/her entries, the program does provide the correct answer so that the learning cycle is complete without external assistance. The comprehensive BES MONITOR ensures that parents can obtain full information on individual childrens' entries after their use of the program.

The program uses a highly motivating scoring system with a small figure climbing a ladder. To children already familiar with Timeman One this recognisable figure will provide reinforcement through previous achievements with the earlier program. In

addition, the well established 'happy face' symbol of success is also provided.

In common with most BES programs, use of the ESCape key takes you back to the main set of program options. Simply press ESCape twice to revert to the main menu

LOADING

It is best to press CTRL and SHIFT and whilst holding them down, press and release the ESCape key. This resets the computer before loading. The cassette should be placed in the Datacorder with the label upwards and the tape wound back to the beginning.

Simply press CTRL and the small ENTER key, followed by pressing the PLAY key on the Datacorder and then pressing any other key.

Loading of the program takes about four minutes in all

Having completed loading, the program displays the title and copyright screen for a few seconds. No entries are necessary and the program will automatically move on to the main menu screen

THE MAIN PROGRAM

The program offers the following options which can be chosen in any order or repeated anv number of times:

1. Telling Minutes to the Hour

The clock hands randomly point to any period between 1 and 29 minutes to the hour (see Section 8 for setting the minute intervals to either 1 or 5 minutes), and the child needs to to enter the appropriate number of minutes to the hour and then press ENTER. The cursor then moves to the following line where the relevant hour is required to be entered, followed by ENTER. The DELETE key will delete the number(s) if required, provided that this is done before ENTER is pressed for the second time. All keys other than the number keys, the DELETE, and ESCape keys are deactivated. When the sign <SPACE> appears, the program will wait until the space bar is pressed. Pressing ESCape twice at any point in the program will cause the program to return to the main menu

On entering the correct time the 'happy face' smiles and congratulates the child, and the man climbs two steps up the ladder. If the entry is within plus or minus 3 minutes of the correct answer, then the comment 'CLOSE!' is made, the man climbs up one step, and the right answer shown. In the event of the entry being incorrect, the face grimaces, the last entry is shown on the clock, and the child is

invited to try again. Should the child again enter an incorrect time then after the last entry is demonstrated on the clock the correct answer is shown. At each incorrect entry the man climbs one step down the ladder.

If the stage is completed so that the man reaches the top before a total of 15 entries, then he dances to a tune and plants a flag to show the completion of a stage. This flag is carried over for each individual child to the next stage, and so a series of flags can be built up. As soon as a new name is entered after choosing an option from the menu, a new sequence of flags is begun. After the 15th entry the program returns to the menu.

2. Telling Quarter and Half Hours

The clock hands point at random to quarter past, half past, or quarter to the hour, and the child is required to choose which is applicable to the time shown on the clock, (followed by ENTER). Following this entry the appropriate hour should be entered, and ENTER pressed. Similar responses occur to 'Telling minutes to the hour' except that the entries are either correct or incorrect. Similarly, completion of the stage within 15 attempts is marked with a flag, which is carried over to future stages.

3. Telling the 24-Hour Clock

The clock hands in this stage point to any time lagain see Section 8 for setting the minute intervals to either 1 or 5 minutes) and the relevant period - morning/afternoon/evening - indicated in conjunction with am or pm beneath the clock. The child needs to enter the number of hours followed by ENTER. Note that entry of a single number automatically leads to a 'O' being introduced as the first figure, so assisting children to become familiar with the correct representation of 24-hour time. Following this the number of minutes needs to be entered (again a '0' is introduced if appropriate) and ENTER pressed. As with the previous stages, the DELETE key will cancel all entries provided these are made before ENTER is pressed for the second time.

The same responses are given as for 'Telling minutes to the hour', with the need to give exactly the correct answer for the man to climb two steps up the ladder.

4. Setting Minutes to the Hour

The hour and minute hands need to be set in this stage. The operation of the 'H' and 'M' keys move respectively the hour and minute hands round the clock face. Either key can be

used to start. As the minute hand is moved the hour hand is correctly positioned relative to the hour marks. When the correct setting is believed to have been reached, ENTER should be pressed.

In the event that it is realised that a setting is inaccurate, then the DELETE key can be used to step the minute hand backwards to the desired setting before RETURN is pressed.

If the setting is within plus or minus 3 minutes of the correct time, then a 'CLOSE' response is obtained and the man climbs one step. Outside of this range then the 'happy face' grimaces and the man moves down one rung. The criteria for achievement of a flag is the same as in other stages.

Similar responses are obtained as with previous stages, with the appropriate feedback given if incorrect times are entered.

5. Setting Quarter and Half Hours

Again both the hour and minute hands need to be set in this stage, in a similar manner to stage 4, but in this case the operation of the 'M' key moves the minute hand round in quarter hour steps. The 'H' key moves the hour hand round again in the correct relative position to the hour marks. In the event that it

is realised that a setting is incorrect, then the DELETE key can be operated to wind the clock back in quarter hour increments.

6. Setting the 24-Hour Clock

The hands of the clock need to be moved in a similar manner to the previous two stages, although in this case the am/pm period indicated beneath the clock face is changed by rotating the hour hand (by means of the 'H' key) through 12 hours. Again either hand can be set initially; most children tend to find it easier to set the minute hand first, followed by the hour hand to obtain the correct hour and period of the day. In the event of an incorrect setting being realised before ENTER is pressed, then either the DELETE key can be used to wind the minute hand back, or the hour hand rotated using the 'H' key through an appropriate additional period.

Similar responses exist as for the previous stages.

7. The BES Monitoring System

All interactive BES programs contain a performance recording system or monitor. Using this, teacher, parent or the child can see how well the child has managed with particular stages.

Each time a new stage is entered after starting the program from the main menu, a new monitor record is created. The facility will hold the record of the last six users of the program, (after number six, number seven will be recorded over number one, eight over two. etc.).

Access to detailed information on individual children's entries is available under this option, and data is retained in the following detail:

- a) Individual child's name.
- b) Time taken.
- c) Category attempted telling or setting time.
- d) Time settings asked (white), correct entries (green) and incorrect entries (red). These times will also show whether one or five minute intervals have been chosen, and whether the stage used was minutes to the hour, quarter, half hours, or the 24hour clock.

Careful analysis of the information stored in these records can provide a valuable guide to specific problems or more general difficulties or successes, and provide a guide for further practice.

8. Setting Minute Intervals

To broaden the range of interest and age group to which the program appeals, and to further develop skills, the program has the facility to set the random time functions to one minute accuracy. The program, unless this option is exercised, is set to multiples of 5 minutes.

The option chosen is clearly identifiable by the white (set) numbers in the monitor records.

THE TIMEMAN SERIES

The programs are intended as supplement to existing teaching methods, using the motivational aspects of the microcomputer to encourage practice and so achieve the required skills. The companion program, Timeman One, features the following options for learning to tell the time:

- 1. Telling Hours
- 2. Telling Minutes
- 3. Telling Hours and Minutes
- 4. Setting Hours
- 5. Setting Minutes
- 6. Setting Hours and Minutes

These are aimed at enabling children to understand the analogue clock in easy stages

of, initially hours, then minutes, and finally as minutes past the hour. Generally, it has been found that this is an easier process than the stages covered in Timeman Two, although this is dependent upon individual children's background and experience. The prevelance of digital watches and to some extent clocks also results in children finding the 'minutes past the hour' routine more familiar.

OTHER BES PROGRAMS

Timeman Two is one of a series of Microcomputer programs produced by Bourne Educational Software Ltd with the aim of making learning both easy and enjoyable. The programs are aimed at both home and school use, and are designed to enable children of the appropriate age range to operate them readily through common use of such items as ESCape to return to a menu of program options; <SPACE> to move on to a next screen, and so on.

A common feature with most BES programs is the BES MONITOR system, which allows the teacher, parent or child access to the specific entries made, so allowing identification of specific achievements or problem areas. This does not preclude the use in appropriate programs of a more simple and visible scoring system, which is designed to aid motivation.

BES programs are designed to be largely self-explanatory, and follow similar styles. Children rapidly familiarise themselves with new programs, and can use them if required with the minimum of help.

Other BES Programs include:

Map Rally

Try to find the hidden checkpoints in a race against your opponent or the clock! Map co-ordinates and directions are soon mastered as children learn to control the cars. After each rally they can watch the cars retrace the routes taken, showing how well each driver did. (Age 7–13 years).

Happy Numbers

A program to help children learn their numbers and count without need of reading skills. Attractive graphics and scoring make this a favourite with 3 to 5 year olds.

Happy Letters

The program to teach children to match small and capital letters both on the screen and the keyboard. They love trying to stop the crocodile eating the fishes. Features attractive use of sound and colour as well as easy identification of problem letters for further practice. (Age 3–6 years).

World-Wise

Two programs to stimulate children to 'teach the computer' about geography. Encourages the use of atlases and reference books, helps exam studies and introduces the use of the computer to store information. Data can be readily saved and reloaded at any time. (Age 7-15 years).

Happy Writing

This program helps children form their letters and numbers correctly and encourages them to practise writing. A moving pencil point shows clearly where to start each figure. Tractors, attractive colour and sound all help to keep their interest. (Age 3-5 years).

Animal/Vegetable/Mineral

This program provides hours of fun and enjoyment as the computer tries to guess the object a child has thought of. The computer's failure to guess correctly encourages children to help the computer to tell the difference between the various objects. The program stimulates discussion and the use of reference books. Suitable for all ages 7 years and upwards.

Wordhang

This version of the traditional "Hangman" spelling game has been described as "... the Rolls-Royce of them all"! Features over 250 words plus the ability to enter your own words - either individually or as a group (ideal for that weekly spelling list!). Improves spelling at all ages of 5 years and upwards.

THIS BOOKLET

BES programs always include explanatory booklets of this type to satisfy several objectives. Firstly, to identify the objectives of the program, and to give guidance as to some possible uses of the program based on experiences during the extensive in-classroom and in-house testing period. Secondly, they are designed to give an understanding of the sequences encountered in the programs, since in many situations the time of access to the micro is at a premium. Thirdly, the booklet will assist in using the substantial content of BES programs to the full, through reference to it before, during and after use of them on the micro.

In the event of any problem with the use of this program, or ideas as to improvements which could be incorporated, please do not hesistate to contact BES at the address on the back cover.

Please note: Minor variations in specification may occur due to characteristics of different microcomputers and operating systems.



"... The happy face graphic was popular, but the person who climbs up and down the ladder, depending on the answers really was fun." Educational Computing



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