

THE
AQUARIUS
PROGRAM BOOK



PETER GOODE



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Phoenix Publishing Associates
Bushey, Herts.

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First published in Great Britain by
PHOENIX PUBLISHING ASSOCIATES
14 Vernon Road, Bushey, Herts. WD2 2JL

ISBN 0 9465 7608 4

Printed in Great Britain by
Billing & Sons Limited
Cover design by
Ivor Claydon, Graphics
Typesetting by
Prestige Press (UK) Ltd.

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FOREWORD

The collection of programs in this book have been selected so that you can begin to use your new machine without any previous experience of computing.

If you follow the lines of program listings as shown in the book, you will be able to play missile attack games, test your own and your friends' and family's mathematical abilities. We have also included utilities such as how to convert from decimal to binary, how to save 'string' data on tape, how to crack codes, how to send/receive morse code. We have even included an adventure where you have to save a princess, kill dragons and find treasure.

If you have decided that you can afford to buy more equipment for your Aquarius we have even put in a cheque book statement so that you can make sure your bank can stand the strain.

Many of the programs will have details of key lines which you can alter to increase/decrease or change the information in many of the games. This means that you have a book of programs which you can adapt to suit your experience.

Because of the limited memory available on the Aquarius some of the programs do not carry a REM statement as we needed all the memory for the listing.

We hope that the programs included in this book will add to your enjoyment of the world of Aquarius.

ZOMBIE

You are on the mad professor's island and you are being pursued by the living dead.

To the accompaniment of suitable noises you are hunted down by a pack of Zombies most of whom are fairly slow on their feet – but one of them can move as quickly as you can. Lure them to their fate by leading them into deep pits from which there is no escape. But do remember the crazy who can run as fast as you can.

How to play

Keep moving by using the Z and X and the . and ; keys to stay alive:

```

10 REM Zombie
15 N=10:PIT=10
17 Z=N
20 PRINTCHR$(11):POKE12369,32:FORL=13312
T014311:POKEL,36:NEXT
30 RESTORE:FORL=12299T012315:READD$:POKE
L,ASC(D$):NEXT
35 X=20:Y=18:S=12328+X+40*Y:POKES+1024,1
60:POKES,146
40 DIMA(N),B(N):FORL=1TON
50 A(L)=INT(RND(1)*40):B(L)=INT(RND(1)*2
4):S=12328+A(L)+40*B(L)
55 IFPEEK(S)<>32THEN50
57 POKES,25:NEXT
60 FORL=1TOPIT
63 S=12328+INT(RND(1)*960):IFPEEK(S)<>32
THEN63
66 POKES+1024,4:POKES,150:NEXT
70 C=0:D$=";"
100 C=C+1:IFC>NTHENC=1
105 IFA(C)=-1THEN100

```

```

107 0=12328+A(C)+40*B(C)
110 S=SGN(X-A(C)):T=SGN(Y-B(C))
115 M=12328+A(C)+40*B(C)+S+40*T
120 IFPEEK(M)=150THENGOSUB500:A(C)=-1:PO
KEO,32:POKEM,32:GOTO200
130 IFPEEK(M)=146THEN700
140 POKEO,32:A(C)=A(C)+S:B(C)=B(C)+T:POK
EM,25
150 SOUND(1,40)
200 K#=INKEY#:IFK#(">"z"ANDK#(">"x"ANDK#(">"
"."ANDK#(">"")THEN220
210 D#=K#
220 S=>:T=Y:IFD#(">"z"ANDS>0THENS=S-1
230 IFD#(">"x"ANDS<39THENS=S+1
240 IFD#(">"."ANDT<23THENT=T+1
250 IFD#(">"")ANDT>0THENT=T-1
260 0=12328+X+40*Y:M=12328+S+40*T:IFPEEK
(M)=150THEN700
270 IFPEEK(M)=25THEN700
280 POKEO,32:POKEO+1024,36:POKEM+1024,16
0:POKEM,146
285 X=S:Y=T
290 GOTO100
500 Z=Z-1:IFZ=0THEN800
510 FORL=1TO50:SOUND(2,L):SOUND(10,0):NE
XT:RETURN
700 FORL=1TO50:SOUND(5,INT(RND(1)*100)+5
0):POKE12288,INT(RND(1)*2)+30
705 NEXT
710 PRINT:PRINT:PRINT:PRINT"          CAUG
HT BY THE ROBOTS"
720 IFINKEY#(">"")THEN720
730 IFINKEY#=""THEN730
740 RUN
800 REM Player win routine
810 PRINT:PRINT:PRINT:PRINT:PRINT"
      YOU ESCAPED"
820 GOTO720
1000 DATA*,*,Z,O,M,B,I,E," ",R,O,B,O,T,S
,*,*

```

INVADER

Well, it is time to save the world at last from those alien invaders

They are coming across the screen in waves but this time you have all your laser guns in full firing order. Keep blasting away as there can be anything up to sixteen waves of attackers.

How to play

Press any key on the board. We told you all the lasers were working this time didn't we?

```

10 REM Invader
20 PRINTCHR$(11):POKE12369,32:FORL=13352
T014311:POKEL,32:NEXT
30 W=1:SC=0
40 FORL=12296T012310:READD$:POKEL,ASC(D$
):NEXT
50 B=13268
60 POKEB,143
70 POKEB+1024,160
80 SPEED=100
90 IFINKEY$("<>")THEN90
100 S=12328+40*INT(RND(1)*12)
110 POKE13312,W:POKE13351,W
120 I=S:S=S+40
130 IFW=17THEN600
140 X=0
150 IFW<10THENPOKE12310,W+48:GOTO200
160 POKE12310,49:POKE12311,38+W
200 POKEI,32:I=I+1
210 IFI=STHEN250
220 X=X+1:POKEI,20
240 IFINKEY$=""THEN300
245 GOTO500

```

```

250 FORL=1TO350: SOUND(1,L):NEXT
260 W=W+1
270 POKEI,32
280 GOT0100
300 FORJ=1TOSPEED:NEXT
310 GOT0200
500 IFX<>20THEN250
510 POKEI,209
520 FORL=255TO1STEP-4: SOUND(1,L): POKEI+1
024,L:NEXT
530 SC=SC+10: POKEI+1024,32
540 FORL=1TO2000:NEXT: GOT0260
600 PRINTCHR$(11): FORL=13312TO13351: POKE
L,1:NEXT
610 PRINT:PRINT:PRINT:PRINT:PRINT:PRINT:
PRINT:PRINT
620 PRINT"          AFTER 16 ATTACK WAVES"
630 PRINT"          YOU HAVE SCORED"
640 PRINT"          ";SC
650 IFINKEY#<>" "THEN650
660 IFINKEY#=" "THEN660
670 RUN
1000 DATA,T,T,A,C,K," ",W,A,V,E," ",": "
," ",1

```

DRIVING

Don't worry we haven't put in a gear stick or a clutch and you won't be breathalized if you do wander all over the road but it might make a good test before you let your friends drive home from your next party.

The object is to steer your car down the road but the road does weave about a bit and you will hear some nasty noises if you don't make it to the end.

For the fast Harry's and loonie Lizz' among you we have put in a level of difficulty so that you can show off your reactions to the road changes.

How to play

Use keys Z and X for left and right and . to steer straight.

```

10 REM Driving
15 PRINTCHR$(11)
17 SC=0
20 INPUT"Difficulty (4-7) ";D
30 IFD<4OR D>7OR D<>INT(D)THEN20
40 PRINTCHR$(11)
42 POKE12369,32
44 FORL=13312TO14311
46 POKEL,32
48 NEXT
50 C=12348:R=13222
54 FORL=1TO23
56 PRINT
58 NEXT
60 D$="."
70 FORL=13352TO13391
80 POKEL,16
90 NEXT

```


HANGMAN

You have probably played with paper and pencil before, to while away a train journey or a wet afternoon, but against a computer?

The object is to spell out the word the computer has chosen in as few moves as possible, or the little man hangs. Each mistake you make draws another part of the gallows, the rope and the victim.

How to play

Press letter keys for your selections.

Programming hints

All of the words can be changed by altering the DATA in lines 1000 onwards. You will soon find it necessary to change, and enlarge the computer's vocabulary.

```

10 REM Hangman
15 CLEAR100
17 CR=0
20 PRINTCHR$(11):FORL=1TOINT(RND(1)*10+1
):READW$:NEXT
30 POKE12369,32:W=LEN(W$):FORL=1TOW:POKE
12418+L,95:NEXT
40 FORL=1T026:POKE13214+L,L+64:NEXT
50 C$="***HANGMAN***":FORL=1TOLEN(C$):PO
KE12292+2*L,ASC(MID$(C$,L,1))
60 NEXT:FORL=13312T013351:POKEL,113:NEXT
70 G=0
80 L$="abcdefghijklmnopqrstuwxxyz"
100 K$=INKEY$:IFK$<"a"ORK$>"z"THEN100
110 K=ASC(K$)-96:IFMID$(L$,K,1)="-"THENS
OUND(60,100):GOTO100

```

```

120 POKE13214+K,95:L#=LEFT$(L#,K-1)+"-"+
RIGHT$(L#,26-K)
130 F=0:FORL=1TOW
140 IFK#=MID$(W#,L,1)THENF=1:CR=CR+1:POKE
E12418+L,K+64
150 NEXT:IFF=0THENG=G+1:GOSUB500:GOTO100
160 IFCR=WTHENPRINT:PRINT:PRINT:PRINT:PR
INT"
CORRECT":GOTO900
170 GOTO100
500 FORL=1T0150STEP3:SOUND(1,L):NEXT
505 ONGG0T0510,520,530,540,550,560,570,5
80
510 FORL=13024T013030:POKEL,163:NEXT:RET
URN
520 FORL=12983T012583STEP-40:POKEL,234:N
EXT:RETURN
530 POKE12984,218:RETURN
540 FORL=12544T012548:POKEL,31:NEXT:RETU
RN
550 POKE12584,202:RETURN
560 POKE12549,28:POKE12589,151:RETURN
570 POKE12588,218:RETURN
580 POKE12629,146:FORL=1T0100:SOUND(1,50
0+INT(RND(1)*40)):NEXT:GOTO900
900 IFINKEY#("<")THEN900
910 IFINKEY#=""THEN910
920 RUN
1000 DATAcomputer,dictionary,plough,fede
ral,historic
1010 DATAairship,sky,elephant,mathematic
s,success

```


BOMBER

You may have seen this game in an arcade form, but normally there are several chances for you before it's too late.

Your plane is dropping into the middle of an empty city, and the only way you can save the lives of yourself and your crew, is to flatten all the buildings by releasing your bomb load one by one. It may seem easy, but just wait until you are only one level off the ground, and there are still two sky scrapers standing.

Just to make it easier for you, we have put in a difficult level so you can choose your own speed of play.

How to play

Guage the angle of your plane, and drop bombs by pressing SPACE button to release.

```

10 REM Bomber
15 PRINTCHR$(11):INPUT"Dif+ficul+ty (1-40)
   ";D
16 IFD<10RD>400RD<>INT(D)THEN15
17 W=D
20 PRINTCHR$(11):POKE12369,32
30 FORL=13352T014311:POKEL,32:NEXT
40 FORL=13248T013287:FORH=LTOL-40*INT(RN
DC(1)*5)STEP-40
50 POKEH,134:POKEH+1024,64:NEXT:NEXT
60 A=0:B=-1:X=0:Y=0
100 REM Main Loop
110 O=12328+X+Y*40:POKEO,32
120 X=X+1:IFX=40THENX=0:Y=Y+1
130 IFY=24THEN400
140 S=12328+X+Y*40:IFPEEK(S)<>32THEN500

```

```
150 POKES,154
200 REM Move Bomb
210 IFB=-1THEN500
220 O=12328+A+B*40:B=B+1:POKEO,32:POKEO+
1024,32
230 IFB=24THENB=-1:GOSUB300:GOTO100
240 S=12328+A+B*40:IFPEEK(S)=134THENS=C+S
C+10
245 SOUND(1,B*8)
250 POKES,135:GOSUB300:GOTO100
300 REM Delay
310 FORD=1TOW:NEXT:RETURN
400 REM Plane Landed
410 FORL=1TO4
420 FORM=200TO50STEP-5:SOUND(1,M):NEXT:N
EXT
430 GOSUB300:GOTO550
500 REM Plane Crashed
510 POKES,208:GOSUB300:POKES,209:GOSUB30
0:SOUND(40,500)
550 PRINTTAB(10)"Score : ";S0
560 IFINKEY#<>" "THEN560
570 IFINKEY#=" "THEN570
580 RUN
600 REM Test KBD:
610 IFINKEY#<>" "THENGOSUB300:GOTO100
620 B=Y+1:A=X:GOSUB300:GOTO100
```

SNIPER

As you will know, your Aquarius can produce a little man for use in many of your games programs. We have used him here, but not in the nicest way.

He is running for his life.

The figure will appear on the screen, sometimes for a few seconds, sometimes for a split second, and you must line up your rifle and bring him down before he vanishes again.

It's not nice, as we said, but then again he might be an advance man from a foreign planet and we all know what a nuisance they can be.

How to play

When the character appears use keys Z and X to move and . to fire.

```

10 REM Sniper
20 PRINTCHR$(11):POKE12369,32:FORL=13312
  TO14311:POKEL,224:NEXT
30 SC=0
40 W=0
100 IFRND(1)<.995THEN100
200 P=INT(RND(1)*480)+12328
210 POKEP+1024,48:POKEP+1064,48:POKEP,21
  :POKEP+40,22
250 G=13188
260 D$="x"
270 W=W+1
280 IFW>10THENPRINT:PRINTCHR$(11):PRINT:
  PRINT:PRINT:PRINT:PRINT:PRINT"SCORE  ";S
  C:GOTO800

```

```

300 IFRND(1)>.99THENPOKEP,32:POKEP+40,32
:POKEG,32:GOSUB500:GOTO100
310 K#=INKEY#:IFK#<>"z"ANDK#<>"x"ANDK#<>
"."THEN330
320 D#=K#
330 H=G:IFD#="z"ANDH>13168THENH=H-1
340 IFD#="x"ANDH<13207THENH=H+1
350 IFD#="."THEN400
360 POKEG,32:POKEH,143:G=H:SOUND(10,20):
GOTO300
400 IFINT((G-P)/40)=(G-P)/40THEN450
410 FORL=GT012328STEP-40:POKEL+40,32:POK
EL,94
420 SOUND(5,L-12328):NEXT:POKEL+40,32:PO
KEP,32:POKEP+40,32
430 POKEP+1024,224:POKEP+1064,224:GOSUB5
00:GOTO100
450 FORL=GT0PSTEP-40:POKEL+40,32:POKEL,9
4
460 SOUND(5,L-12328):NEXT:SC=SC+10
462 POKEL+40,32
465 FORL=1T050:POKE12288,INT(RND(1)*256)
:NEXT:POKE12288,32
470 FORL=1T03000:NEXT:GOTO100
500 FORL=1T0500STEP12:SOUND(1,L):NEXT:RE
TURN
800 IFINKEY#<>""THEN800
810 IFINKEY#="."THEN810
820 RUN

```

ASTEROID STORM

It looks as if the situation is pretty impossible for you and the crew of your starship. You are heading into an asteroid belt, and your force field shield has gone. To add to your problems, your laser guns have overheated and your navigator has got a head cold. It looks like another average Monday morning in deepspace.

All you can do is to manoeuvre your way through the waves of asteroids and last as long as you can. There is no let up though, even when you get through the first 100, as things get even tougher.

Good luck, Captain.

How to play

Use keys **B** and **X** to move left and right.

Your score will appear when you finally bite the dust — asteroid dust.

```

10 REM Asteroid storm
11 W=1:D$="."
12 J=100
13 SC=0
15 PRINTCHR$(11):PRINT:PRINT:PRINT:PRINT
:PRINT:PRINT:PRINT:PRINT:PRINT:PRINT"
   ATTACK WAVE :";W
20 PRINTCHR$(11):POKE12369,32:FORL=13352
TO14311:POKEL,W*16:NEXT
25 FORL=1TO23:PRINT:NEXT
30 S=12347:C=212:B=160
40 K=0
100 REMMain loop

```

```

110 POKE13249+INT(RND(1)*39),135
120 POKE13249+INT(RND(1)*39),135
150 K$=INKEY$:IFK$<>"z"ANDK$<>". "THEN170
160 D$=K$
170 IFD$="z"ANDS>12329THENS=S-1
180 IFD$="."ANDS<12365THENS=S+1
190 PRINT:POKE13249,32:SC=SC+10:K=K+1
195 IFK=100THEN300
200 REM Detect
210 IFPEEK(S)=135ORPEEK(S+1)=135THEN400
250 POKES,156:POKES+1,156
260 GOSUB500:GOTO100
300 REM Next wave
310 W=W+1:IFW>15THENW=1
320 SC=SC+100:FORL=1TO3:FORM=400TO20STEP
-5:SOUND(2,M):NEXT:NEXT
330 PRINT:PRINT:PRINT"BONUS : : 100 : : :
NEXT WAVE"
340 IFJ<>1THENJ=J-1
350 FORL=1TO1500:NEXT
360 GOTO15
400 REM Destroyed
410 FORL=1TO350STEP3:SOUND(6,L):NEXT
420 PRINT:PRINT:PRINT"DESTROYED":FORL=1T
03000:NEXT
430 PRINTCHR$(11):PRINT:PRINT:PRINT:PRIN
T:PRINT:PRINT:PRINT:PRINT"      You Score
d : ";SC
440 IFINKEY$<>""THEN440
450 IFINKEY$=" "THEN450
460 RUN
500 REM Delay
510 FORL=1TOJ:NEXT:RETURN

```

ALIEN ATTACK

Just when you thought you had got rid of those invaders, here they come again.

This time, however, they are coming at you from the top of the screen and you must protect your laser base by moving and firing at the same time.

They won't always come from the same place on the screen so don't think you can just sit there and knock them down.

How to play

Use keys Z and . to move and the SPACE button to fire.

```

10 REM Alien Attack
20 SC=0:PRINTCHR$(11):POKE13312,1:POKE13
351,1
30 POKE12369,32:FORL=13352TO14311:POKEL,
48:NEXT
40 B=13268:POKEB,143:POKEB+1024,16:D$="z
"
45 X=0
50 A=12328+INT(RND(1)*40)
100 GOSUB200:GOSUB300:GOSUB200:GOSUB400
110 IFA<>0THEN100
120 GOT050
200 REM Move Base
205 N=B
210 K#=INKEY$:IFK#="z"OR K#="."THEN215
211 IFK#<>" "THEN220
212 IFH<>0THEN215
213 H=B-40:GOTO220
215 D#=K#
220 IFD#="z"AND B>13248THEN N=N-1
230 IFD#="."AND B<13287THEN N=N+1

```

```

240 IFN=BTHENRETURN
250 IFPEEK(N)<>32THEN800
260 POKEB,32:POKEB+1024,48:B=N
270 POKEB+1024,16:POKEB,143:RETURN
300 REM Move Alien
310 N=A+40:IFN=BTHEN800
320 IFN>13247THENPOKEA,32:POKEA+1024,48:
A=0:GOTO350
330 POKEA,32:POKEA+1024,48:POKEN+1024,16
0:POKEN,212:A=N
350 IFX=0THENX=A+40:RETURN
355 Y=X+80
360 IFY=BORY=B+40THEN800
370 IFY>13247THENPOKEX,32:X=0:RETURN
380 POKEX,32:X=Y:POKEY,198
390 RETURN
400 REM Move Missile
410 IFH<>0THEN450
430 RETURN
450 N=H-40
460 IFN<12368THENPOKEH,32:POKEH+1024,48:
H=0:RETURN
470 IFPEEK(N)<>212THEN480
475 POKEH,32:POKEH+1024,48:H=0:A=0:POKEN
,32:SC=SC+10:RETURN
480 POKEH,32:POKEH+1024,48:H=N:POKEH+102
4,112:POKEH,94:RETURN
800 REM Base is hit
805 POKEB,209:POKEB-40,32
810 FORL=1TO300STEP2:SOUND(1,L)
820 POKE13312,INT(RND(1)*15+1):POKE12288
,INT(RND(1)*2)*45+185:NEXT
825 PRINT:PRINT:PRINT:PRINT:PRINT:PRINT:
PRINT:PRINT:PRINT
827 PRINT"          SCORE :";SC
830 IFINKEY#<>" "THEN830
840 IFINKEY#=" "THEN840
850 RUN

```


CONVERTER

If you are really interested in the inner workings of your computer then you will know that it works in binary numbers. This program will help you to convert your listings/flowcharts from decimal to binary; and from binary to decimal.

If you want to peek and poke and are a machine code enthusiast, then this is for you.

How to play

This is evident when you complete listing the program. You will soon realise that this is for you.

```

10 REM Converter
20 PRINTCHR$(11):PRINT:PRINT"1) Decimal
  to binary":PRINT:PRINT"2) Binary to De
  cimal"
30 K$=INKEY$:IFK$<>"1"ANDK$<>"2"THEN30
40 IFK$="2"THEN200
100 PRINT:PRINT:INPUT"Number to convert
  ";N
110 B$=""
120 N=N/2:Q=N-INT(N)
130 IFQ=0THENB$="0"+B$:GOTO150
140 B$="1"+B$
150 N=INT(N):IFN<>0THEN120
160 PRINT:PRINT"BINARY : ";B$
170 GOTO500
200 PRINT:PRINT:INPUT"Binary Number to C
  onvert";B$
210 D=0:P=0
220 P=P+1:IFMID$(B$,P,1)<>"0"THEN240
230 IFP<>LEN(B$)THEN220
240 IFMID$(B$,P,1)="1"THEND=D*2:D=D+1:GO
  TO270

```

```
250 D=D*2
270 P=P+1:IF P<=LEN(B$)THEN240
280 PRINT:PRINT"DECIMAL : ";D
290 GOTO500
500 IF INKEY#<>" "THEN500
510 IF INKEY#=""THEN510
520 GOTO20
```

MINEFIELD

Your people have retreated to their own lines and have left you to find your own way back to Headquarters **through the minefield**. You must aim for the top of the screen which is your target and safety.

You will have to be quick however because the mines increase in number as you move. You must get home before your route is blocked.

How to play

Using keys Z and X . and ; guide yourself around the minefield.

```

10 REM Minefield
12 W=0:SC=0:NM=1
20 PRINTCHR$(11):POKE12369,32:FORL=13352
T014311:POKEL,16:NEXT
30 FORL=13312T013351:POKEL,W+112:NEXT
40 P=13248:R=12328+INT(RND(1)*300)
50 POKEP+1024,48:POKEP,25
60 POKER+1024,32:POKER,146
70 RESTORE:FORL=12295T012300:READLL$:POK
EL,ASC(LL$):NEXT
71 IFW<10THENPOKE12302,W+48:GOTO100
73 POKE12302,49:POKE12303,W+38
100 K#=INKEY$:IFK#<>"z"ANDK#<>"x"ANDK#<>
"."ANDK#<>";"THEN110
105 D#=K#
110 TP=P:IFD#="z"ANDP>12328THENTP=P-1
120 IFD#="x"ANDP<13287THENTP=P+1
130 IFD#="."ANDP<13248THENTP=P+40
140 IFD#=";"ANDP>12367THENTP=P-40
145 IFP=TPTHEN180
150 POKEP,32:POKEP+1024,16
160 P=TP:IFPEEK(P)<>32THEN500

```

```

170 POKEP+1024,48:POKEP,25
180 FORL=1TONM
190 S=INT(RND(1)*960)+12328:IFPEEK(S)<>3
2THEN190
200 POKES,135:POKES+1024,16:SOUND(4,16):
NEXT
210 GOTO100
500 IFPEEK(P)=146THENGOSUB600:GOTO20
510 POKEP+1024,48:FORL=1TO100:POKEP,208+
INT(RND(1)*2)
520 SOUND(1,80+INT(RND(1)*5)):NEXT
530 POKEP,32
540 PRINT:PRINT:PRINT:PRINT:PRINT:PRINT:
PRINT:PRINT"You have been caught by the
mines"
545 PRINT:PRINT"          SCORE  :";SC
550 IFINKEY$<>" "THEN550
560 IFINKEY$=" "THEN560
570 RUN
600 FORL=1TO4:FORLL=200TO1STEP-3:SOUND(1
,LL):NEXT:NEXT
610 NM=NM+1:W=W+1:SC=SC+NM*30:RETURN
700 DATAW,A,U,E," ",": "

```

DIGITAL CLOCK

You can either run this program on it's own, or use it as a subroutine within your own programs to show how long the game has been running.

Programming hint

The large delay loop at line 60 shows how fast BASIC works. This delay can be altered.

```

10 REM DIGITAL CLOCK
20 H=0
30 M=0
40 S=0
50 D=200
60 D=770
70 PRINTCHR$(11)
100 GOSUB400
110 FORL=1TOD
120 NEXT
130 S=S+1:IFS<60THEN100
140 S=0:M=M+1:IFM<60THEN100
150 M=0:H=H+1:IFH<24THEN100
160 H=0
170 GOTO100
400 T#=STR$(H)+":"+STR$(M)+":"+STR$(S)
410 T#=" "+T#+""
420 FORL=1TOLEN(T#)
430 POKEL+12297,ASC(MID$(T#,L,1))
440 NEXT
450 RETURN

```

HEART CATCHER

A catchy little program this as your little man runs around the screen seeking falling hearts.

The story is that he has lost his heart to a cruel woman – don't we all – and he is now trying to get it back as it falls to the ground. You might even say that 'Romance is in the air'.

See if you can help him find his heart and anyway you get a score for trying.

How to play

Move the poor little fellow from side to side by using keys Z and X for left and right.

```

10 REM Heart Catcher
20 PRINTCHR$(11):POKE12369,32
30 FORL=13352T014311
40 POKEL,16:NEXT
45 C$="ROMANCE IS IN THE AIR":FORL=1T021
:POKEL+12297,ASC(MID$(C$,L,1))
47 NEXT
50 H=0:B=13268:D$="."
60 TL=0
100 IFH=0THENH=12328+INT(RND(1)*400):HS=
INT((H-12328)/5)
105 TL=TL+1:IFTL=2000THEN600
110 POKEH,32:POKEH+40,212:H=H+40:IFH=BTH
EN400
120 IFH>13247THENPOKEH,32:H=0
200 K$=INKEY$:IFK$(">"<"z"&NDK$("<"<".")THEN220
210 D$=K$
220 Q=B+1024
230 IFD$="z"&NB>13248THENPOKEB,32:POKEQ
,16:B=B-1:POKEB+1024,48:POKEB,147

```

```
235 IFD#="."ANDB<13287THENPOKEB,32:POKEB
,16:B=B+1:POKEB+1024,48:POKEB,147
240 GOTO100
400 REM Caught
410 FORL=1TO3:FORW=100TO1STEP-5:SOUND(1,
W+3*L):NEXT:NEXT
420 SC=SC+HS
430 POKEH,146:H=0:GOTO100
600 REM End of game
605 FORL=12288TO12327:POKEL,32:NEXT
610 C#="YOU SCORED"+STR$(SC)+" HEARTS"
620 FORL=1TOLEN(C#)
630 POKEL+12295,ASC(MID$(C#,L,1)):NEXT
640 IFINKEY#<>" "THEN640
650 IFINKEY#=" "THEN650
660 RUN
```

NUMBER

Your computer is going to offer you the chance to show off, as it is going to choose a number between 1 and 100 and ask you to guess it's choice.

The computer will tell you if your guess is too high or too low.

How to play

Simply key in your number guess, and your computer will do the rest.

Programming hint

If you get too clever at this game too easily, change the figure of 100.

```
10 REM Number
20 PRINTCHR$(11)
30 X=INT(RND(1)*100+1)
40 PRINT:PRINT:PRINT:PRINT"I've thought
of a number"
50 PRINT:INPUT"Your Guess ";G
60 IFG>XTHENPRINT"Too big":GOTO110
70 IFG<XTHENPRINT"Too small":GOTO110
80 PRINT"Yes that's it":PRINT
90 FORL=1TO50: SOUND(6,INT(RND(1)*200)):N
EXT
100 GOTO20
110 PRINT"Try Again":GOTO50
```


LUNAR LANDER

Your skill as an astronaut is now needed as you try to bring your lander safely down to the moon's surface.

If you cannot control the descent by studying the fuel left, the engine burn, height and velocity then you will crash into the bleak surface and bang goes our national space budget. So do your best and get it right first time.

By the way, if you get it right, you'll be promoted to Captain so goodness knows what your role is at present - cook?

How to play

Use the number keys to control the rate of fuel burn. Fuel, engine burn, height and velocity will be shown on screen and updated as you slow the ship down. It must land at a speed of less than 0.5.

```

10 REM Lunar Lander
20 PRINTCHR$(11):PRINT:PRINT:PRINT:PRINT
:PRINT:PRINT"          LUNAR LANDER"
30 PRINT:PRINT:PRINT"          Press (1-9)
for FUEL BURN"
40 G=5
50 S=200
70 F=1000
80 B$="5"
90 U=1
100 REM Main Loop
110 PRINTCHR$(11)
115 IFF=0THENPRINT" NO FUEL REMAINING":
GOTO130
120 PRINT"FUEL          : ";F
130 PRINT"BURN         : ";B$

```

```

140 PRINT"HEIGHT      : ";S
150 PRINT"VELOCITY   : ";-U
160 PRINT:PRINT:PRINT:PRINT:PRINT:"(1-9)
for BURN"
170 K#=INKEY#:IFK#<"0"ORK#>"9"THEN300
200 IFF<>0THENB#=K#
300 B=ASC(B#)-48:F=F-B:IFF<=0THENF=0:B=0
320 A=B
330 U=U-(A-G)/40
340 S=S-U
350 IFS<=0THEN400
360 SOUND(100,INT(S)):GOTO100
400 IFU<.5THEN440
405 PRINT"CRASHED":FORL=1TO500STEP15:SOU
ND(1,L):NEXT
410 IFINKEY#<>" "THEN410
420 IFINKEY#=""THEN420
430 RUN
440 PRINT:PRINT:PRINT"      SUCCESSFUL LAN
DING":PRINT"THE RANK OF CAPTAIN":PRINT"I
S YOURS"
450 GOTO410

```

MONDRIAN ART

Well, to tell the truth, we had to look it up to see what it was about and it seems there was a Dutch painter named Mondrian who painted abstract art. What has that to do with your Aquarius you may ask. Well, the fact is that your modest little computer has the talent to originate for your eyes only – abstract art. If you have had a hard day at the office, in the kitchen or at school just enter this short program into your computer – sit back and watch the results.

It really is the most beautifully relaxing experience.

```

10 REM Mondrian Art
20 PRINTCHR$(11):POKE12369,32
30 C=INT(RND(1)*16):FORL=13312T014311:PO
KEL,C:NEXT
40 FORL=1T050
50 A=INT(RND(1)*40):B=INT(RND(1)*24)
60 C=INT(RND(1)*40):D=INT(RND(1)*24)
65 E=INT(RND(1)*16)
70 FORY=BTODSTEP$GN(D-B)
80 F=13352+40*Y
90 FORX=ATOCSTEP$GN(C-A)
100 POKEF+X,E:NEXT:NEXT
105 NEXT
110 C$="SUCH IS TRUE BEAUTY"
120 FORL=1TOLEN(C$)
130 POKEL+12295,ASC(MID$(C$,L,1))
140 NEXT
150 IFINKEY$("<")=""THEN150
160 IFINKEY$=""THEN160
170 RUN

```

PAINTER

If you have been battling in outer space for the last few days, and you are looking for something a little more relaxing, here's your program.

Your Aquarius has gone mad and painted nasty aerosol marks all over the background colour of the screen. You have to clean up the mess before the law arrive and arrest you for vandalism.

How to play

Using keys Z and X for left and right, and O and ; for up and down, you have to paint over the spoilt area.

Your final score will appear at the game end.

```

10 REM Painter
15 SC=0:W=0
20 PRINTCHR$(11):POKE12369,32:C=INT(RND(
1)*16)
25 IFC=0ORC=15THEN20
30 F=INT(RND(1)*16):IFF=CTHEN30
35 LL=0
40 FORL=13312TO14311:POKEL,C:NEXT
50 P=13852
60 FORL=1TO140
70 POKEP,F:IFRND(1)>.7ANDP<14311THENP=P+
1:GOTO90
75 IFRND(1)>.7ANDP<14271THENP=P+40:GOTO9
0
80 IFRND(1)>.7ANDP>13352THENP=P-1:GOTO90
85 IFRND(1)>.7ANDP>13412THENP=P-40:GOTO9
0
90 NEXT
95 P=12828:D$="."

```

```
100 K$=INKEY$:IFK$<>"z"ANDK$<>"x"ANDK$<>
"."ANDK$<>";"THEN120
110 D$=K$
120 O=P:IFD$="z"ANDO>12328THENO=O-1
130 IFD$="x"ANDO<13287THENO=O+1
140 IFD$="."ANDO<13247THENO=O+40
150 IFD$=";"ANDO>12368THENO=O-40
160 POKEP,32:POKEP+1024,C:POKEO,135
170 P=O:IFPEEK(P+1024)=FTHENS=C+10
180 LL=LL+1:IFLL<200THEN100
190 C$="SCORE :"+STR$(S):GOSUB500
200 FORL=1TO2000:NEXT
300 W=W+1:IFW<>10THEN20
310 C$="FINAL SCORE :"+STR$(S):GOSUB500
320 FORL=1TO2000:NEXT
330 IFINKEY$<>" "THEN330
340 IFINKEY$=""THEN340
350 RUN
500 FORL=1TOLEN(C$):POKE12295+L,ASC(MID$
(C$,L,1)):NEXT
510 RETURN
```

ANAGRAMS

Although this may look a short program you can extend, and change, the content to suit the player's skills. Play around with words and see how difficult you can make it.

The computer will advise you of the anagram and ask you to identify the hidden word. The game is greatly enhanced if someone else programs in the choice of words.

How to play

Type in the missing/correct word and press.

```

100 REM Anagrams
110 RESTORE
115 READN
120 FORL=1TOINT(RND(1)*N+1)
123 READW$
126 NEXT
130 A$=W$
140 FORL=1TO30
150 S=INT(RND(1)*LEN(W$)+1)
160 A$=MID$(A$,S,1)+LEFT$(A$,S-1)+MID$(A$,S+1,255)
170 NEXT
180 PRINTCHR$(11)" The Anagram is :":PRI
NT:PRINT
190 PRINT"      ";A$
200 PRINT:PRINT:PRINT:PRINT
210 PRINT" What is the hidden word ?"
213 INPUTG$
216 IFG$=W$THEN500
220 PRINT"Wrong....Bad Luck"
230 GOTO110
500 PRINT"Correct....Well done"
510 GOTO110

```

900 DATA10

- 1000 DATAaquarius, computer
- 1010 DATAtelevision, colour
- 1020 DATAcinema, bungalow
- 1030 DATAsuitcase, cassette
- 1040 DATAcarpet, ceiling
- 1050 DATAmathematical, gyroscope
- 1060 DATAaerial, generator
- 1070 DATAglass, needle
- 1080 DATAsienna, vienna
- 1090 DATAcharismatic, remote
- 1100 DATApicture, encyclopedia
- 1110 DATArabbit, aardvark
- 1120 DATAstandard, telephone
- 1130 DATAboxes, board
- 1140 DATAheater, amplifier
- 1150 DATAbasic, video
- 1160 DATAdifficult, strange
- 1170 DATAcaravan, alarm
- 1180 DATAspade, skier
- 1190 DATAhoarse, frost

GRAPH DRAWING

This is a simple to list program which can be very helpful for students and businessmen.

Using a fine line facility, your computer will draw a sine graph.

Programming hint

If you wish to change the action of the graph, then modify line 40 to suit your needs.

```

10 REM Graph Drawing
20 PRINTCHR$(11)
21 POKE12369,32
22 FORL=13352T014311
23 POKEL,32
24 NEXT
25 POKE12369,32
30 FORX=0T079STEP.25
40 Y=SIN(X/12)*35
50 PSET(INT(X),INT(Y)+36)
60 NEXT
70 IFINKEY$("<>")THEN70
80 IFINKEY$=""THEN80
90 FORX=0T079STEP.25
100 Y=COS(X/12)*35
110 PSET(INT(X),INT(Y)+36)
120 NEXT
130 IFINKEY$("<>")THEN130
140 IFINKEY$=""THEN140
150 PRINTCHR$(11)
160 END

```


REACTION TIMER

This is one way to test your party guests reactions before they decide to drive home from the party.

The screen will change colour as you watch and you must react as quickly as possible by stopping the next change.

How to play

Hit any key to stop the program.

Your reaction time will be shown at the end of the game.

```

100 REM Reaction Timer
110 PRINTCHR$(11)
115 POKE12369,32
120 IFRND(1)>.995THEN190
130 IFINKEY#=""THEN120
140 PRINT:PRINT:PRINT:PRINT:PRINT" CHEAT
    "
150 FORL=250TO550STEP6
160 SOUND(5,L)
170 NEXT
180 GOTO110
190 C=0:POKE13312,INT(RND(1)*5)
200 IFINKEY#=""THENC=C+1:GOTO200
210 PRINT"Your Reaction Count is ";C
220 FORL=1TO30
230 SOUND(4,150-INT(RND(1)*100))
240 NEXT
250 GOTO110

```

ARITHMETIC QUIZ/ MULTIPLICATION TABLE

Here are two short programs which do an awful lot of work. The arithmetic program includes both addition and subtraction questions; the multiplication program will print any tables you want to try.

How to play

Just type in your answers and see how clever you are. On the arithmetic program you will get a final result out of ten, so try not to look too stupid in front of the children.

```

10 REM Arithmetic Quiz
20 PRINTCHR$(11):PRINT:PRINT:INPUT"Diffi
culty "/D
30 IFC<1THEN20
35 SC=0
40 FORL=1TO10
50 A=INT(RND(1)*D*10+1):B=INT(RND(1)*D*1
0+1)
60 IFRND(1)>.5THENC=A+B:D$=" + ":GOTO80
70 C=A-B:D$=" - "
80 PRINTCHR$(11):PRINT:PRINT"Question nu
mber "/L
90 PRINT:PRINT:PRINT:PRINT:PRINT"
;D$;B;" =":INPUTR
100 IFR<>0THEN200
110 PRINT:PRINT:PRINT"      CORRECT":SC=S
C+1
120 FORW=1TO1000:NEXT:GOTO300
200 REM Wrong Answer
210 PRINT:PRINT:PRINT"      INCORRECT":PR
INT:PRINT"      ";A;D$;B;" = ";C
220 FORW=1TO4000:NEXT
300 NEXT

```

```
310 PRINTCHR$(11):PRINT:PRINT:PRINT"You
scored :")SC):PRINT"          out of
10"
320 FORW=1TO1000:NEXT:PRINT:PRINT:PRINT:
PRINT:PRINT"Press <SPACE> to restart"
330 IFINKEY$<>" "THEN330
340 RUN
```

```
10 REM Multiplication table
20 PRINTCHR$(11):PRINT
30 INPUT"Constant to multiply by ";C
40 INPUT"Variable Multiplier start";U
50 INPUT"Variable Multiplier end";E
60 PRINT:PRINT:PRINT:PRINT"The ";C;" tim
es table"
70 PRINT:PRINT:PRINT"Multiplier      Resul
t"
80 FORL=UTOESTEPSGN(E-U)
90 PRINTL,L*C
100 NEXT
110 END
```

DRAGON

This is another of the games where we have taken so much of the memory of the machine that no space is left for REM statements. You are straight into the listings.

You are the hero the world has been waiting for to kill the dragon, take the gold and save the princess.

If you are brave you can nominate to fight, or if you have more sense you can choose to run away. The trouble is that running away doesn't mean that you will live to fight again. The Dragon may still get you. Anyway, if you run away you will get no gold and why should you, you miserable coward.

Somewhere in the maze lies your destiny. Be a hero.

How to play

To move about the maze press N, S, E, W for compass directions.

If you want to run or fight press R or F.

The game ends if you save the princess, or are killed by the Dragon.

Programming Notes

To change the maze, alter the negative number in the RND (Random) brackets in line 30 of the program.

```

20 DIMN$(9),ST(9),D$(7):FORL=1TO9:READN$(
(L),ST(L):NEXT:FORL=1TO7
30 READD$(L):NEXT:ST=RND(-4):ST=50:TR=0
100 PRINTCHR$(11);"You are in a maze":PR
INT"There are exits : "
120 EX$="" :IFRND(1)>.75THENPRINT"north":
EX$=EX$+"n"
130 IFRND(1)>.75THENPRINT"south":EX$=EX$
+"s"
140 IFRND(1)>.75THENPRINT"east":EX$=EX$+
"e"
150 IFRND(1)>.75THENPRINT"west":EX$=EX$+
"w"
155 F=0:IFEX$=""THEN120
160 IFRND(1)>.95THEN700
170 IFRND(1)>.666THENGOSUB500
180 IFF=1THEN100
200 PRINT:PRINT:PRINT:PRINT"Move in whic
h direction":PRINT"The choice is :";EX$
205 IFINKEY$<>" "THEN205
210 K#=INKEY$:L=0:IFK$=""THEN210
220 L=L+1:IFK#=MID$(EX$,L,1)THEN300
230 IFL<>LEN(EX$)THEN220
240 PRINT:PRINT:PRINT"You can't move in
that direction":GOTO200
300 S=RND(-L*RND(1)):GOTO100
500 M=INT(RND(1)*9+1):SM=INT(RND(1)*ST(M
))
510 M$="You've bumped into a :":GOSUB800
:M#=D$(RND(1)*7+1)+" "+N$(M)
520 GOSUB800:M$="What do you want to do"
:GOSUB800
540 K#=INKEY$:IFK$<>"f"THEN600
560 SM=SM-INT(RND(1)*ST):IFSM<=0THEN570
563 ST=ST-INT(RND(1)*SM):IFST<=0THEN580
565 M$="you hit the monster":GOSUB800:M$
="and it hits you":GOTO520
570 M$="you killed the monster":GOSUB800
:T=INT(RND(1)*ST(M)+2)
571 ST=ST+INT(RND(1)*2)
572 M$="You find :"+STR$(T)+" gold piece
s":GOSUB800:TR=TR+T:RETURN
580 M$="You are dead...":GOSUB800:GOTO74
0
600 IFK$<>"r"THEN540

```

```
605 IFRND(1)>.4THENM#="you couldn't get  
away":GOSUB800:GOTO560  
610 L=RND(-RND(3)):F=1:RETURN  
700 M#="You have found the princess":GOS  
UB800  
720 M#="You are a hero":GOSUB800  
740 M#=".....and you have some treasure"  
:GOSUB800  
750 M#=STR$(TR)+" pieces of gold":GOSUB8  
00:END  
800 PRINTM#:PRINT:FORL=1TO1000:NEXT:RETU  
RN  
1000 DATAorc,20,troll,40,dwarf,30,dragon  
,60,wraith,10,kobold,25,wizard,15  
1010 DATAgiant,100,centaur,80,slimy,vici  
ous,evil,nasty,wierd,angry,clever
```

FIRST ONE

This game could mean the possible destruction of your computer unless you trust all your friends to be gentle.

The game is for up to NINE players, and the object is to be the first one to press a key and stop the game.

A coloured square will appear on the screen, and then everyone must try to be first to react.

How to play

The computer will ask "How many players are there?"

Tell the computer, which will then ask for the player's names.

Player One uses key A, player Two uses key B and so on.

If you cheat and move early however, the computer will tell everyone "Guess who cheated" "It was"

The winner will be identified and their reaction time will be shown.

```

10 REM First one
15 PRINTCHR$(11)
16 CLEAR400
20 INPUT"How many players are there ";N
30 IFN<10RN>9THENPRINT:PRINT:PRINT"one t
o nine players only":GOTO20
40 DIMN$(N):FORL=1TON:PRINT"Name of play
er ";L;" ":INPUTN$(L):NEXT
45 PRINTCHR$(11)
50 IFRND(1)>.995THEN200

```

```
60 K$=INKEY$:IFK$=""THEN50
70 FORL=50TO600STEP5:SOUND(1,L):NEXT:
80 S=ASC(K$)-96:IFS<10RS>NTHENPRINT"ILLE
GAL KEY":FORL=1TO2000:NEXT:GOTO45
90 PRINT:PRINT:PRINT"Hey Everyone....":P
RINT"Guess who just cheated....":PRINT:
PRINT
100 PRINT"It was ....":N$(S)
110 FORL=1TO2000:NEXT:GOTO45
200 REM Make Block Appear
210 POKE13852,1:C=0
220 C=C+1:K$=INKEY$:IFK$=""THEN220
230 S=ASC(K$)-96:IFS<10RS>NTHEN80
240 PRINT:PRINT:PRINT:PRINTN$(S):" WINS"
250 PRINT:PRINT:PRINT:PRINT:PRINT:PRINT:
PRINT:PRINT:PRINT:PRINT"With a reaction
count":PRINT"of ":C
260 FORL=1TO2000:NEXT
270 GOTO45
```


MAZE MOVER

There is a pot of gold waiting for you at the end of the maze if you can squeeze through the gaps in the maze walls.

You are the one in charge of the alien this time as it heads for the gold.

Be warned however that the maze narrows as the game progresses and eventually

How to play

Use keys Z and X and . and ; to move left/right and up and down.

```

10 REM Maze mover
15 SC=0:GAP=120
20 PRINTCHR$(11):POKE12369,32:FORL=13312
T013351:POKEL,33:NEXT
30 FORL=13352T014311:POKEL,16:NEXT:FORL=
12335T013255STEP40:POKEL,134
40 POKEL+6,134:POKEL+12,134:POKEL+18,134
:POKEL+24,134:NEXT
50 FORL=12335T012359STEP6:Q=40*INT(RND(1
)*15+3):FORM=L+QTOL+Q+GAPSTEP40
55 POKEM,32:NEXT:NEXT
60 L=12445+40*INT(RND(1)*20):POKEL+1024,
48:POKEL,150
70 X=2:Y=21:D$=";"
100 K$=INKEY$:IFK$("<"z"ANDK$("<"x"ANDK$("<
".ANDK$("<");"THEN120
110 D$=K$
120 A=X:B=Y:IFD$=";" THENB=B-1
125 SC=SC+1
130 IFD$="." THENB=B+1
140 IFD$="x" THENA=A+1

```

```
150 IFD$="z"THENA=A-1
160 IFA<00RA>390RB<00RB>23THENGOTO500
170 N=12328+A+B*40:O=12328+X+Y*40
180 IFPEEK(N)=150THEN400
190 IFPEEK(N)<>32THEN500
200 POKEO,32:POKEN+1024,160:POKEN,25
210 X=A:Y=B
220 SOUND(4,390-X*10):GOTO100
400 REM Player finds target
410 C$="NOW FOR THE NEXT WAVE EARTHLING"
:FORL=1TOLEN(C$)
420 POKE12294+L,ASC(MID$(C$,L,1)):SOUND(
60,INT(RND(1)*100)):NEXT
430 FORL=1TO2000:NEXT
440 GAP=GAP-40:IFGAP<0THENGAP=0
450 SC=2*SC:GOTO20
500 REM Player Dies
510 C$="SCORE : "+STR$(SC):FORL=1TOLEN(C
$)
520 POKE1+12294,ASC(MID$(C$,L,1)):NEXT
530 FORL=1TO400STEP20:SOUND(4,L):NEXT
540 IFINKEY$<>" "THEN540
550 IFINKEY$=" "THEN550
560 RUN
```

MORSE ENCODER

If you are planning to go sailing in the near future, then this program will help you brush up your morse code before you go.

Can you remember what to tap for S.O.S.?

It's.....

That's all the help we are going to give you. Hope you don't have to use it.

When you type a message into this program, your computer will play it back in morse code. A good way to test each message is to have someone else enter the message, and for you to sit down on the other side of the room and see if you can decode it.

How to play

Just press the alphabet keys of your choice.

Programming Hint

If you feel that the play back is too slow, or too fast, you can change the speed by altering S=12 in line 20 of the program.

```
10 REM Morse Encoder
20 S=12:D=2
30 DIMM$(26):FORL=1TO26:READM$(L):NEXT
40 PRINTCHR$(11):PRINT:PRINT:PRINT:PRINT
"Message to transmit "
```

```

50 INPUT " "; I$
60 FOR L=1 TO LEN(I$)
70 IF MID$(I$,L,1) < "a" OR MID$(I$,L,1) > "z" THEN
  GOSUB 300:GOTO 90
80 X$=MID$(I$,L,1):GOSUB 700
90 NEXT:PRINT:PRINT:PRINT "Transmission complete"
100 FOR L=1 TO 2000:NEXT:RUN
300 REM Pause between words
310 FOR N=1 TO 120*0:NEXT:RETURN
400 REM Short pause
410 FOR N=1 TO 30*0:NEXT:RETURN
500 REM Dot
510 SOUND(S,100):GOSUB 410:RETURN
600 REM Dash
610 SOUND(S*3,100):GOSUB 410:RETURN
700 REM Sound one char
710 X=ASC(X$)-96:F$=M$(X)
720 FORM=1 TO LEN(F$)
730 IF MID$(F$,M,1)="s" THEN GOSUB 500:GOTO 750
740 GOSUB 600
750 NEXT:RETURN
1000 DATA s,l, lsss, lls, lss, s, ssls, lls
1010 DATA ssss, ss, slll, lsl, slss, ll
1020 DATA ls, lll, sls, llls, sls, sss, l
1030 DATA ssl, sssl, sl, lssl, lll, llls

```

ARTIST

Let your creative skills run amok as you paint your emotions across the canvass of your screen. Well maybe that's going over the top a little, but at least you can indulge yourself a bit without getting paint all over the dining room floor.

This program will allow you to change the background colours and the foreground. You can also stop the program while you consider your next broadbrush sweep.

How to play

Use keys Z and X and . and ; to draw the pictures.

Press B for background colour and F for foreground.

Press W to stop movement and C to clear and start again.

```

10 REM Artist
20 PRINTCHR$(11)
25 POKE12369,32
30 Q$="Choose Background Colour "
35 GOSUB200:B=C
40 Q$="Choose Foreground Colour "
45 GOSUB200:F=C
50 PRINTCHR$(11)
54 POKE12369,32
57 W=B+16*F
60 FORL=13312T014311
63 POKEL,W
67 NEXT
70 X=40:Y=36:F=1
80 D$=""
90 S=200
100 K$=INKEY$

```

```
105 IFK$="f" THENF=1
110 IFK$="b" THENF=0
120 IFK$="c" THENRUN
125 IFK$="w" THEND$=""
130 IFK$("<"z"ANDK$("<"x"ANDK$("<". "ANDK$("<
";" THEN150
140 D$=K$
150 IFD$="z"ANDX>0 THENX=X-1
160 IFD$="x"ANDX<79 THENX=X+1
170 IFD$="."ANDY<71 THENY=Y+1
180 IFD$=";"ANDY>0 THENY=Y-1
190 IFF=1 THENPSET(X,Y):GOSUB300:GOTO100
195 PRESET(X,Y)
197 GOSUB300
199 GOTO100
200 PRINT:PRINTQ$;
205 INPUTC
207 IFC<00RC>150RC<>INT(C) THEN200
210 RETURN
300 FORL=1TOS:NEXT
310 SOUND(5,100)
320 RETURN
```

WORM

You are in charge of a very hungry worm which is charging around the screen trying to eat numbers. It is strange the things that worms eat in computer games!!

Every number you have the worm eat will gain you points but be careful as this worm will turn and, if it eats itself, you will have to start over again.

How to play

Guide the worm around the screen using the keys Z and X and . and ;

```

10 REM Worm
20 W=5
30 DIMP(50)
40 PRINTCHR$(11):POKE12369,32:FORL=13312
TO14311:POKEL,116:NEXT
50 FORL=1TOW:P(L)=13268-40*L:POKEP(L),13
5:NEXT
60 D$=";"
100 K#=INKEY$:IFK#("<"z"ANDK#("<"x"ANDK#("<"
"."ANDK#("<");"THEN120
110 D#=K#
120 N=P(W):IFD#="z"THENN=N-1
130 IFD#="x"THENN=N+1
140 IFD#="."THENN=N+40
150 IFD#=";"THENN=N-40
160 IFN<12368THENN=N+920
170 IFN>13287THENN=N-920
180 IFPEEK(N)=135THEN400
182 IFPEEK(N)<>32THENGOSUB500:GOTO220
185 T=P(1)
190 FORL=1TOW-1
200 P(L)=P(L+1):NEXT
210 P(W)=N:POKEN,135:POKET,32

```

```
220 IFF=1THEN100
230 S=12368+INT(RND(1)*920):IFPEEK(S)<>3
2THEN230
240 F=1:POKES,48+INT(RND(1)*9+1):GOTO100
400 REM Eaten Self
410 FORL=1TOW:POKEP(L)+1024,20:SOUND(100
,L*10):NEXT
415 PRINT:PRINT:PRINT:PRINT:PRINT:PRINT:
PRINT:PRINT"          SCORE  ";SC
420 IFINKEY$<>" "THEN420
430 IFINKEY$=""THEN430
440 RUN
500 U=PEEK(N)-48:F=0:SC=SC+10*U:W=W+1
502 IFW=51THENW=50:RETURN
505 P(W)=N:POKEN,135
510 FORL=50TO1STEP-1:SOUND(1,L):NEXT
515 IFW>30THENW=30
520 RETURN
```


BREAKOUT

This is almost like playing a game of squash against a multi-coloured wall, except every time you hit one of the bricks you knock a piece out of the wall.

This may seem simple to play, but the ball comes back at angles, so you will have to predict where the ball will bounce to after your shot hits the wall.

It is possible as well, to break through the wall and find yourself bouncing around at the back before all the front wall has been destroyed.

How to play

Use key X to move left and Z to move to the right.

```

10 REM Breakout
15 SC=0
20 PRINTCHR$(11):POKE12369,32
25 FORL=13392TO14311:POKEL,32:NEXT
30 FORL=12328TO12367:POKEL,132:POKEL+102
4,64:NEXT
40 FORL=12368TO13248STEP40:POKEL,149:POK
EL+1024,64
45 POKEL+39,133:POKEL+1063,64:NEXT
50 FORL=12569TO12606STEP2:POKEL,137:POKE
L+1024,224:POKEL+121,137
55 POKEL+1145,160:POKEL-160,137:POKEL+86
4,48:NEXT
57 FORL=14273TO14310:POKEL,16:NEXT
60 P=13260:FORL=PTOP+4:POKEL,163:NEXT
65 D$=" ":BC=57
70 C=1:D=-40:O=13213+2*INT(RND(1)*3)
100 REM Main Loop
110 K#=INKEY#:IFK#=""THEN115
112 D#=K#

```

```
115 IFD$="z"ANDP>13249THENP=P-1:POKEP+5,
32:POKEP,163
120 IFD$="."ANDP<13282THENP=P+1:POKEP-1,
32:POKEP+4,163
200 REM Move Ball
210 N=O+C+D:S=PEEK(N)
220 IFN=12329ORN=12367THENC=-C:D=-D:GOTO
210
230 IFS=132THEND=-D:GOTO210
240 IFS=149ORS=133THENC=-C:GOTO210
250 IFS=137THEND=-D:POKEN+1024,32:SOUND(
3,80):SC=SC+10:BC=BC-1
260 IFS=163THEND=-D:SOUND(4,100):GOTO210
270 IFN>13287THEN500
300 POKEO,32:POKEN,135:O=N
310 IFBC<>0THEN100
320 GOTO20
500 REM Lose
510 FORL=50TO300STEP5:SOUND(1,L):NEXT
520 PRINTCHR$(11):PRINT:PRINT:PRINT:PRIN
T:PRINT
530 PRINT" You Scored : ";SC
540 FORL=1TO100:NEXT
550 PRINT:PRINT:PRINT:PRINT:PRINT:PRINT"
 Play Again (Y/N) ";
560 K$=INKEY$:IFK$<>"y"ANDK$<>"n"THEN560
570 IFK$="y"THEN10
580 END
```

TWENTY ONE

This is one of the programs mentioned in the foreword, where so much of the memory has been used that there was no room left for the initial REM but the name of the game is "Twenty One".

You will be welcomed to the Pontoon table, given several pieces of gold and invited to take your hand against the computer. Cheating will do you no good as the Aquarius is a machine of honour and will hold no truck for cheats. You will be asked to Twist, Stick or Fold according to your courage and the state of your purse.

At least if you do go bust it's unlikely that Aquarius will come looking for the shirt off your back.

How to play

Press T for Twist, S to Stick and F for Fold if you have bust your hand. Aquarius will tell you when it draws, if it gets a pontoon or goes bust.

```

10 CLEAR186
20 RESTORE: DIMS$(4): FORL=1TO4: READS$(L):
NEXT
30 DIMU$(13): FORL=1TO13: READU$(L): NEXT
40 G=100: M$=CHR$(11)+"Welcome to the pon
toon table": GOSUB550
50 M$="You are starting with "+STR$(G):G
OSUB550: M$="pieces of gold."
55 GOSUB500
65 IFINKEY$="" THEN65
100 PRINTCHR$(11): M$="You have "+STR$(G)
+" pieces of gold": GOSUB550: G=G-3
110 C=0: GOSUB400: GOSUB400: IFC=21 THENM$="
PONT00N !!!": GOSUB550: GOT0200

```

```

120 PRINT"Twist or Stick or Fold"
130 K$=INKEY$:IFK$="+"THEN150
131 IFK$="s"THEN160
132 IFK$<>"f"THEN130
135 M$="OK...":GOSUB550:M$="You lose you
r stake":GOSUB550:GOTO100
150 M$="Here it comes.....":GOSUB550:GOS
UB400:IFC<22THEN120
155 M$="You are bust.....":GOSUB550:PL=0
:GOTO170
160 PL=0:GOTO170
170 M$="My turn.....":GOSUB550:C=0:GOSUB
400:GOSUB400
175 IFC=21THENM$="I have a pontoon":GOSU
B550:GOTO100
180 IFC>15THEN190
182 GOSUB400:IFC>21THENM$="I went bust":
G=G+6:GOSUB550:GOTO100
184 IFC>15THEN190
186 M$="I think I'll draw again":GOSUB55
0:GOTO182
190 IFC>=PLTHENM$="I won that game...":G
OSUB550:GOTO100
200 M$="You win":GOSUB550:G=G+6:GOTO100
400 IFP$=""THENGOSUB500
410 C$=LEFT$(P$,1):P$=RIGHT$(P$,LEN(P$)-
1):T=ASC(C$)-39:TT=T-1
420 IFT>13THENT=TT-13:GOTO420
425 SC=T:IFSC>10THENSC=10
427 IFSC=1THENSC=11
430 C=C+SC:L=1+INT(TT/13):M$="The "+U$(T
)+" OF "+S$(L):GOSUB550
440 RETURN
500 H$="":P$="":FORL=40TO91:P$=P$+CHR$(L
):NEXT
510 M$="NEW PACK":GOSUB550:H$="":FORL=1T
O52:S=INT(RND(1)*LEN(P$)+1)
520 H$=H$+MID$(P$,S,1):P$=LEFT$(P$,S-1)+
RIGHT$(P$,LEN(P$)-S)
525 NEXT:P$=H$:RETURN
550 PRINT:PRINTM$:FORL=1TO800:NEXT:RETUR
N
1000 DATACLUBS,DIAMONDS,HEARTS,SPADES,AC
E,TWO,THREE,FOUR,FIVE,SIX,SEVEN
1010 DATAEIGHT,NINE,TEN,JACK,QUEEN,KING

```

DOUBLE SURROUND

Here is a game you can only play with a close friend as you will have to sit in each others lap to play.

Each player will have the target of trying to surround his opponent before being surrounded himself. Sounds tricky doesn't it? Just wait until you try to play complete with some very nasty crashing and crunching noises when you finally collide.

Oh, by the way, if you happen to crash into your own trail it will mean goodbye for you so keep on your toes and off your opponents trail – and your own.

How to play

Player One uses Q and A and Z and X

Player Two uses . and , and ; and /

```

10 REM Double Surround
15 C=3:D=3:POKE12290,51:POKE12325,51
20 PRINTCHR$(11):POKE12369,32:FORL=13352
T014311:POKEL,160:NEXT
30 FORL=13312T013351:POKEL,2:NEXT
40 A=12818:B=12838:C$="x":D$=","
50 POKE12290,C+48:POKE12325,D+48
60 POKEB+1024,16
90 X=A:Y=B
100 K$=INKEY$:IFK$(">"Q"ANDK$(">"A"ANDK$(">"Z"ANDK$(">"X"THEN120
110 C$=K$
120 IFC$="z"THENX=A-1
121 IFC$="x"THENX=A+1
122 IFC$="Q"THENX=A-40
123 IFC$="A"THENX=A+40
126 IFX<12328THENX=X+960

```

```

127 IFX>13287THENX=X-960
128 IFPEEK(X)<>32THEN600
129 POKEA,135:A=X:POKEA,150
130 IFK#<>".ANDK#<>","ANDK#<>";"ANDK#<>
"/"THEN150
140 D#=K#
150 IFD#="."THENY=B+1
151 IFD#=","THENY=B-1
152 IFD#=";"THENY=B+40
153 IFD#="/"THENY=B-40
156 IFY<12328THENY=Y+960
157 IFY>13287THENY=Y-960
158 IFPEEK(Y)<>32THEN500
159 POKEB,135:B=Y:POKEB+1024,16:POKEB,15
0
160 SOUND(1,40):GOTO90
500 REM Player one crashed
510 C=C-1:GOSUB700:IFC=0THEN900
520 GOTO20
600 REM Player two crashed
610 D=D-1:GOSUB700:IFD=0THEN900
620 GOTO20
700 REM Crashed noise
710 W=INT(RND(1)*15+1):POKE13312,W:POKE1
3351,W
715 FORW=1TO5
720 FORL=1TO500STEP30:SOUND(4,L):NEXT
725 NEXT
730 RETURN
900 REM End of game
910 PRINTCHR$(11):POKE13312,10:POKE13351
,10
920 POKE12369,32:PRINT:PRINT:PRINT:PRINT
:PRINT:PRINT:PRINT:PRINT:PRINT
930 PRINT"      PLAYER ";:IFC=0THENPRIN
T"ONE ";:GOTO950
940 PRINT"TWO ";
950 PRINT"WINS"
960 PRINT:PRINT:PRINT:PRINT"
<SPACE>"
970 IFINKEY#<>" "THEN970
980 RUN

```

SCREEN ROUTINES

The following two programs are for your use, if you have found out that there are areas of your computer which are "protected" and generally unavailable to you.

The title program, although looking very short, is a very helpful routine, as you can print up to 39 characters on the area above the normal screen. An example of this can be seen in the "Heart Catcher" program in this book.

The other program, Screen Print, will allow you to 'dump' the picture you have on your television screen listing onto the Aquarius printer. This, again, is a very useful routine, as normally the Aquarius does not allow 'text' to be dumped onto its printer. All of the programs in this book were produced using this routine.

```

10 REM Title
20 INPUT "TITLE";T$
30 IF LEN(T$)=0 OR LEN(T$)>39 THEN 20
40 S=INT((40-LEN(T$))/2)
50 FOR L=1 TO LEN(T$)
60 POKE 12287+L+S,ASC(MID$(T$,L,1))
70 NEXT
80 END

```

```

10 REM Screen Print Routine
20 FOR L=12328 TO 13248 STEP 40
30 FORM=0 TO 39
40 LPRINT CHR$(PEEK(L+M))
50 NEXT
60 LPRINT
70 NEXT

```

QUIZ MASTER

You can set the questions and your Aquarius will ask your friends for their answers. What could be simpler than that. This is a good teaching aid, if you enter the correct information.

The Aquarius will ask a multiple answer question and the players will be asked to choose. Each correct answer will result in a 10 point bonus and each wrong answer a small penalty.

How to play

Press the key marked A,B,C,D for your answer.

Programming Hints

If you want to change the data you will need to know the lines to alter and these are as follows:

Line 1010 indicates DATA which is the correct answer to each question. Remember to change this DATA or you will look rather silly.

```

10 REM Quiz Master
20 PRINTCHR$(11):PRINT:PRINT"AQUARIUS QU
IZ MASTER":PRINT
30 SC=0
35 DIMA$(4)
40 PRINT"You score 10 points for each":P
RINT"correct answer":PRINT"and will lose
 a"
50 PRINT"small penalty when you":PRINT"give a wrong answer"
```



```

55 IFINKEY#=""THEN55
60 RESTORE
70 READN:REM No. of questions
80 READC$:REM string of correct solution
90 FORQ=1TON
100 READQ$:FORL=1TO4:READA$(L):NEXT
110 PRINTCHR$(11):PRINT:PRINTQ$:PRINT:PR
INT:PRINT
120 FORL=1TO4:PRINT:PRINTCHR$(L+64);")
";A$(L)
130 NEXT:PRINT:PRINT:PRINT:PRINT
140 PRINT"      ?";
150 K#=INKEY$:IFK#<>"a"ANDK#<>"b"ANDK#<>
"c"ANDK#<>"d"THEN150
160 IFK#=MID$(C$,Q,1)THENGOSUB400:GOTO18
0
170 GOSUB500
180 FORL=1TO1000:NEXT:NEXT
200 PRINTCHR$(11):PRINT:PRINT:PRINT"Your
Total Score is :";SC
210 PRINT:PRINT:PRINT"Out of maximum pos
sible":PRINT"score of ";N#10
220 IFINKEY#<>" "THEN220
230 IFINKEY#=""THEN230
240 RUN
400 REM Correct answer
410 SC=SC+10:PRINT:PRINT:PRINT"Correct"
420 RETURN
500 REM Incorrect answer
510 SC=SC-3:PRINT:PRINT:PRINT"Wrong...N
ever mind"
520 RETURN
1000 DATA5
1010 DATAcaadd
1020 DATAHow many letters are there in t
he alphabet
1025 DATA24,25,26,29
1030 DATAWhat is the AQUARIUS
1035 DATAa computer,a star sign,a type o
f bucket,a seven letter word
1040 DATAHow many television channels ar
e there in ENGLAND
1045 DATA4,3,2,none
1050 DATAHow many colours does the AQUAR
IUS have

```

1055 DATA12,8,4,16

1060 DATAWhat is choux

1065 DATAA type of shot putting,a small
man,a frightening gunshot

1067 DATAA type of pastry

WORD TEST

This is a combination of a reaction, spelling and typing skills test.

Your computer will put a word on the screen and you will be asked to type in the exact copy of the word before it reaches the bottom of the screen and disintegrates.

How to play

Type in the word as quickly as possible - correctly.

Programming Hints

All of the words in lines 1000 and 1010 can be changed, and further lines may be added if the word power of your family is greater or lesser than the simple examples given here.

This is a very good teaching aid for children to help them become better at spelling and make them more accustomed to using a computer keyboard.

```

10 REM Word Test
15 SC=0:T=0
20 RESTORE:FORL=1TOINT(RND(1)*10+1):READ
W$:NEXT
100 PRINTCHR$(11):POKE12369,32:FORL=1331
2TO13351:POKEL,4:NEXT
120 Q=12423:S$=""
130 W=LEN(W$)
140 F=0
200 FORL=1TO50:NEXT
205 FORL=1TOW:POKEQ-40+L,32

```

```

210 GOSUB500:NEXT
220 FORL=1TOW:POKEQ+L,ASC(MID$(W$,L,1))
230 GOSUB500:NEXT
235 IFF=1THEN400
240 Q=Q+40:IFQ<13248THEN200
250 Q=Q-40:FORL=1TOW:POKEQ+L,209:SOUND(1
,INT(RND(1)*30)):NEXT
260 FORL=1TOW:POKEQ+L,208:SOUND(1,INT(RN
D(1)*30)):NEXT
270 FORL=1TOW:POKEQ+L,32:SOUND(1,INT(RND
(1)*60+20)):NEXT
280 T=T+1:IFT<5THEN20
290 PRINT:PRINT:PRINT:PRINT:PRINT" SCORE
":SC;" FROM";T;" TURNS"
300 IFINKEY$<>" THEN300
310 IFINKEY$="" THEN300
320 RUN
400 SC=SC+10:PRINT:PRINT:PRINT:PRINT:PRI
NT" CORRECT":FORL=1T0200STEP6
410 SOUND(1,L):NEXT:GOTO280
500 K#=INKEY$:IFK#="" THENRETURN
510 S#=S#+K#:IFS#=W$ THENF=1:POKE12372+LE
N(S#),ASC(RIGHT$(S#,1)):RETURN
520 IFS#=LEFT$(W$,LEN(S#)) THENPOKE12372+
LEN(S#),ASC(RIGHT$(S#,1)):RETURN
530 FORLL=12372T012407:POKELL,32:NEXT:S#
="" :RETURN
1000 DATAsky,hello,bird,computer,jelly
1010 DATAword,quick,random,book,colour

```

CAROL

Well, Christmas is always coming and you can program your computer to play your favourite carols for the family.

The carol we have put in here for your listening pleasure is "Once is Royal David's City", but you can list your own choice.

How to play

Just type in the listing press RUN and sit back.

Programming hints

You can change the speed of the output by altering line 25. Change the data from line 200 onwards to change the tune. Ensure, if you change the tune, that you change line 150 which contains the total of the notes to be played.

```

10 REM Carol
20 PRINTCHR$(11)
25 INPUT"Speed (1 is fast)";S
30 PRINT:PRINT:PRINT:PRINT:PRINT"ONCE IN
   ROYAL DAVID'S CITY"
35 DIMW(4):W(1)=30:W(2)=60:W(3)=90:W(4)=
   120
40 RESTORE
50 READN
60 FORL=1TON
70 READP,D
80 SOUND(W(D)*S,P)
90 NEXT
100 RUN
150 DATA54

```

200 DATA189,2,150,2,140,3,140,1,140,1,150,
0,1,140,1,126,1,126,2,140,2,140,2
210 DATA110,2,92,3,110,1,110,1,126,1,140,
1,150,1,140,4
220 DATA189,2,150,2,140,3,140,1,140,1,150,
0,1,140,1,126,1,126,2,140,2,140,2
230 DATA110,2,92,3,110,1,110,1,126,1,140,
1,150,1,140,4
240 DATA83,2,83,2,92,3,140,1,104,2,104,2,
110,4,83,2,83,2,92,3,110,1
250 DATA110,1,126,1,140,1,150,1,140,4

ENCODER / DECODER

So you want to be a spymaster and join Smiley's people? Or maybe you are just fed up with everyone in the family reading your diary when you could be hiding it in code.

This program will allow you to insert your own code word and have it processed by the computer which will then code all your information.

Only you will know the code word!!

How to play

Type in your code word using the alpha keys.

Remember, the longer the word the more complicated the code will be.

```

10 REM Encoder / Decoder
11 CLEAR200
20 PRINTCHR$(11):PRINT:PRINT:PRINT:PRINT
"1) ENCODE":PRINT:PRINT"2) DECODE":PRI
NT:PRINT:PRINT:PRINT"Your Choice";
30 K#=INKEY#:IFK#<"1"OR"K#>"2"THEN30
35 PRINT
40 IFK#="2"THEN400
50 INPUT"CODEWORD ";W#
60 W=LEN(W#):IFW=0THEN50
70 INPUT"SENTANCE TO ENCODE ";S#
80 S=LEN(S#)
82 T#="":FORL=1TOS
84 B#=MID$(S#,L,1):IFB#>CHR$(96)ANDB#<CH
R$(123)THENT#=T#+B#
86 NEXT L:S#=T#:S=LEN(S#)
90 C=0:E#=""
95 FORL=1TOW

```

```
100 C=C+1:E=ASC(MID$(S$,C,1))+ASC(MID$(W$,L,1))-128
110 IFE>90THENE=E-26
120 E#=E#+CHR$(E):IFC=STHEN200
130 NEXT:GOTO95
200 PRINTE$
210 IFINKEY$<>" "THEN210
220 IFINKEY$=""THEN220
230 RUN
400 INPUT"CODEWORD ";W$
410 W=LEN(W$):IFW=0THEN400
420 INPUT"SENTANCE TO DECODE ";S$
430 S=LEN(S$):IFS=0THEN420
440 T$="":FORL=1TOS
450 T#=T#+CHR$(ASC(MID$(S$,L,1))-32):NEXT
460 S#=T$:C=0:E#=""
465 FORL=1TOW
470 C=C+1:E=ASC(MID$(S$,C,1))-ASC(MID$(W$,L,1))+96
475 IFE<65THENE=E+26
480 E#=E#+CHR$(E):IFC=STHEN500
490 NEXT:GOTO465
500 PRINTE$
510 IFINKEY$<>" "THEN510
520 IFINKEY$=""THEN520
530 RUN
```


ACCOUNT BALANCER

As we said at the beginning of this book, if you want to know whether or not you can afford to buy your printer, invest in a new cassette game, or just eat next week then here is the answer. You know you always forget the cheque you signed the other day, don't you?

This will control your payments in — only you can control your payments out.

The nasty thing about this program is that if you go into the red, so does the screen. Don't play about with this one if you are ashamed of your cash flow situation.

How to play

Your computer will ask you for the opening statements, payments in and payments out.

```

10 REM Account Balancer
15 REM With Overdrawn Warning
20 PRINTCHR$(11)
22 PRINT:PRINT:PRINT:PRINT
24 INPUT"Previous Balance ";B
30 GOSUB100
40 INPUT"Payment in (0=exit) ";P
50 B=B+P
55 IFP<>0THEN30
60 GOSUB100
70 INPUT"Check out (0=exit) ";C
80 B=B-C
85 IFC<>0THEN60
90 PRINTCHR$(11)
92 PRINT:PRINT:PRINT:PRINT:PRINT:PRINT
93 PRINT" Balance is now : ";B

```

```
94 IFB<0THENGOSUB200
95 PRINT:PRINT:PRINT:PRINT
96 PRINT"                <SPACE>"
97 IFINKEY$<>" "THEN97
99 PRINTCHR$(11):END
100 PRINTCHR$(11):PRINT:PRINT:PRINT"BALA
NCE =" ;B
105 IFB<0THENGOSUB200
110 PRINT:PRINT:PRINT:RETURN
200 POKE13312,1:POKE13351,1:RETURN
```

SAFECRACKER

Along with some other programs in this book, we have used up all the available memory and have not been able to afford the use of a REM (Remark) statement but you will see we sneaked the title in on line 80.

Your Aquarius has been pre-programmed with a combination number which you must crack in as few moves as possible.

How to play

The code you have to crack is a 4 digit one, the numbers are between 1 and 8 inclusive.

Key in your estimate of the numbers and the Aquarius will respond as follows:

If your number is correct **and** in the right place it will show up in **WHITE**.

If your number is correct but in the wrong place it will show up in **BLACK**.

If your number is neither correct nor in the correct place the screen will show up a 0.

Alongside your guesses will appear a running total of your attempts. We hope that you crack the number before you crack the Aquarius.

```
5 S=0
10 PRINTCHR$(11):POKE12369,32
20 DIMA(4),A1(4),G(4)
```

```

30 FORB=1TO4
40 C=INT(RND(1)*8)+1
50 F=0:FORD=1TOB
60 IFA(D)=CTHENF=1
70 NEXT:IFF=1THEN40
75 A(B)=C:NEXT
80 M$="          *** SAFECRACKER ***"
85 GOSUB1000:PRINT:PRINT
110 INPUT"ENTER GUESS ";A$
115 IFA$="quit"THEN500
120 IFLEN(A$)<>4THENSOUND(50,200):GOTO110
125 FF=0
130 FORE=1TO4
140 F=VAL(MID$(A$,E,1))
150 IFF<1ORF>8THENFF=1
160 G(E)=F:NEXT
165 IFFF=1THENSOUND(50,200):GOTO110
170 S=S+1
210 B1=0:W1=0:FORH=1TO4
230 IFA(H)=G(H)THENB1=B1+1
240 NEXT
250 FORL=1TO4:A1(L)=A(L):NEXT
260 FORJ=1TO4
270 IFA1(J)=-1THEN312
280 FORK=1TO4
300 IFA1(J)=G(K)THENW1=W1+1:A1(J)=-1
310 NEXT
312 NEXT:W2=W1-B1
315 IFB1=4THEN350
320 PRINT" * ";B1;" * ";W2;" * ";S;" GUESSES"
330 GOTO110
350 PRINTCHR$(11):PRINT:PRINT:PRINT:FORJ=1TO4:PRINTA(J):NEXT:PRINT:PRINT
355 PRINT"Correct Deduction":PRINT:PRINT
360 PRINT"That took ";S;" GUESSES"
370 M$="          Press any key to RESTART"
375 GOSUB1000
380 IFINKEY$<>""THEN380
390 IFINKEY$=""THEN390
400 RUN
500 PRINTCHR$(11):PRINT:PRINT:PRINT:PRINT
510 PRINT"The Code was : ";

```

```
520 FORB=1TO4:PRINTA(B);" ";:NEXT
530 PRINT:PRINT
540 GOTO370
1000 FORL=1TO39
1010 IFL>LEN(M$)THENPOKEL+12288,32:GOTO1
030
1020 POKEL+12288,ASC(MID$(M$,L,1))
1030 NEXT
1040 RETURN
```

DICE

They say that life can sometimes depend on the roll of a dice. Well this isn't that dramatic, we hope. This game is set for two players with the computer in the middle to make sure that no-one cheats.

How to play

You will be asked to enter your names.

Each player, in turn, will then be shown five dice which will be 'thrown' by the computer.

The objective can be decided, by the players, in advance but normally it is most common to regard 5 x 6 as being the winning hand.

After the initial throw the first player will be asked which, or how many, of the dice they wish to throw again. When they have indicated by entering the number and pressing RETURN, the second player's dice will be displayed. When they have made their selection the computer will 'throw' again and move to the next hand.

The computer will not throw for the individual player. Both moves must be entered before any throw is made. We told you that the Aquarius was there to stop cheating and advantage being taken by the second player.

```
10 REM *** DICE ***
15 CLEAR200
20 DIMD(5,2)
25 DIMS(2)
30 S(1)=0:S(2)=0:INPUT"Name of player on
```

```

e ";N$(1)
40 INPUT "Name of player two ";N$(2)
50 IFN$(1)=N$(2)THENPRINT "You'll need to
  use different names":GOTO30
100 FORP=1TO2
110 FORL=1TO5:D(L,P)=INT(RND(1)*6)+1:NEX
T
115 PRINTCHR$(11):PRINT:PRINT:PRINT:PRIN
T
120 M$=N$(P)+"'s go":GOSUB1000
130 PRINT "Die No.          SCORE"
135 PRINT:FORL=1TO5:PRINTL,D(L,P):NEXT
140 PRINT:PRINT "Give dice to Reroll :";
150 INPUTR$:IFLEN(R$)>5THEN150
160 IFR$=""THEN400
170 F=0:FORL=1TOLEN(R$):Q(L)=VAL(MID$(R$
,L,1)):IFQ(L)<1ORQ(L)>6THENF=1
180 NEXT:IFF=1THENSOUND(200,200):PRINT "B
AD DICE":GOTO140
190 FORL=1TOLEN(R$)
200 D(Q(L),P)=INT(RND(1)*6)+1
210 NEXT
400 M$="End of "+N$(P)+"'s go":GOSUB1000
410 FORL=1TO400:NEXT
420 NEXT
500 FORP=1TO2:FORL=1TO6:U(L)=0:NEXT
510 FORL=1TO5:U(D(L,P))=U(D(L,P))+1:NEXT
520 T1=0:T2=0:FORL=1TO6
530 IFU(L)=2THENT1=T1+1
540 IFU(L)=3THENT2=T2+1
550 IFU(L)>1THENS(P)=S(P)+U(L)
560 NEXT
570 IFT1=2THENS(P)=S(P)+2
580 IFT1=1ANDT2=1THENS(P)=S(P)+5
590 NEXT
600 PRINTCHR$(11)
610 M$="The Scores now stand at ":GOSUB1
000
612 FORP=1TO2:PRINT:PRINTN$(P);"'s dice
:";
614 FORL=1TO5:PRINTD(L,P);" ";:NEXT:PRIN
T:NEXT
620 PRINT:PRINT:PRINT:PRINTN$(1);"  : ";
S(1)
630 PRINT:PRINTN$(2);"  : ";S(2)

```

```
640 PRINT:PRINT:PRINT:PRINT:PRINT:PRINT
650 PRINT"Press any key to continue"
660 IFINKEY$<>""THEN660
670 IFINKEY$=""THEN670
680 GOTO100
1000 FORL=12288TO12327:POKE L,32:NEXT
1010 FORL=1TOLEN(M$):POKE12288+L,ASC(MID
$(M$,L,1)):NEXT
1020 RETURN
```


CURRENCY CONVERTER

If you have decided that you are going to France, America, Spain, Greece, Italy, Sweden or anywhere else this is what you will need before you leave.

By using this program and inputting the current currency rate, you will be able to see how much, or how little, you have to spend on wine, women and duty free perfume.

How to play

Your Aquarius will ask you for the current rate of exchange, which is usually printed in your daily newspaper, and then whether you wish to convert to, or from.

You will then be asked the amount you wish to convert and, Hey Presto the answer will appear.

We hope you can afford that extra bottle of beer.

```

10 REM Currency Converter
20 PRINTCHR$(11)
30 PRINT:PRINT:PRINT:PRINT:PRINT
40 INPUT"Rate of exchange ----
      ---- from Sterling ";R
50 PRINTCHR$(11):PRINT:PRINT:PRINT:PRINT
60 PRINT"1) From Sterling"
70 PRINT"2) To Sterling"
75 PRINT"3) New Exchange Rate"
80 PRINT:PRINT:PRINT:PRINT:PRINT:PRINT
90 PRINT"Choose Option : "
100 K$=INKEY$:IFK$<"1"ORK$>"3"THEN100
110 IFK$="3"THEN20

```

```
120 IFK$="2"THEN300
200 PRINTCHR$(11):PRINT:PRINT:PRINT:PRINT
T
210 INPUT"Amount of Sterling ";S
220 PRINT:PRINT:PRINT"Conversion gives "
)S*R
230 GOTO500
300 PRINTCHR$(11):PRINT:PRINT:PRINT:PRINT
T
310 INPUT"Amount to change to Sterling";
A
320 PRINT:PRINT:PRINT"Conversion gives "
)A/R;" Sterling"
330 GOTO500
500 IFINKEY$<>" "THEN500
510 IFINKEY$=" "THEN510
520 GOTO50
```

SLAKER

You are in charge of a very fast growing snake which is charging around your television screen, getting longer and longer second by second.

Your objective is to stay alive as long as you can, before your own body becomes too long and you run over yourself and self destruct.

If you run off the edge of the screen, you will just pop up on the other side and keep going, so don't try to gain any time by taking this way out.

How to play

Guide yourself around the screen using the Z, X, . and ; keys to move.

```

100 REM Snaker
102 H=0
105 PRINTCHR$(11)
107 POKE12369,32
110 FORL=13352TO14272STEP40
115 C=16*INT(RND(1)*6+1)
120 FORM=0TO39
123 POKEL+M,C
126 NEXT: NEXT
130 X=40:Y=20
135 D$="."
140 REM Main Loop
150 PSET(X,Y)
160 K$=INKEY$
162 IFK$=""THEN170
165 IFK$("<"X"ANDK$("<"Z"ANDK$("<". "ANDK$("<"; "THEN170
167 D$=K$

```

```
170 IFD$="x"THENX=X+1
175 IFD$="."THENY=Y+1
180 IFD$="z"THENX=X-1
190 IFD$=";"THENY=Y-1
200 IFX=-1THENX=79
210 IFX=80THENX=0
220 IFY=-1THENY=71
230 IFY=72THENY=0
240 S=S+1
241 SOUND(1,40+INT(RND(1)*10))
243 IFPOINT(X,Y)=0THEN150
245 FORL=300TO500STEP3
247 SOUND(1,L)
249 NEXT
250 PRINT"    You Scored : ";S
255 IFS<HTHEN260
256 H=S:PRINT:PRINT:PRINT
257 PRINT" You have the high score : "
258 FORL=300TO1STEP-6:SOUND(1,L):NEXT
259 FORL=1TO300STEP4:SOUND(1,L):NEXT
260 IFINKEY$<>" "THEN260
270 IFINKEY$=" "THEN270
280 S=0
290 GOT0105
```

OXO

No it's got nothing to do with cooking, it's just our way of telling you that you are about to play noughts and crosses against a computer.

How to play

The squares will be shown on the screen and will be designated as follows:

1	2	3	Top Line
4	5	6	Second Line
7	8	9	Third Line

You will have the choice of first move, but you must always play with O as your marker. We hope that this isn't significant. The first complete line will end the game.

A wrong nomination, in a square already occupied, will not mean that you lose your turn.

```

20 PRINTCHR$(11):DIMB(2,2),R(2),C(2)
60 FORX=0TO2:FORY=0TO2:B(X,Y)=0:NEXT:NEX
T
70 T=0:GOSUB3000
100 K$=INKEY$:IFK$=""THEN100
110 K=VAL(K$):IFK<1ORK>9THENSOUND(50,200
):GOTO100
120 KY=INT((K-1)/3):KX=K-3*KY-1
130 IFB(KX,KY)<>0THENSOUND(50,200):GOTO1
00
140 B(KX,KY)=1:GOSUB2000:GOSUB3000:IFC(0
)=3ORC(1)=3ORC(2)=3THEN6000
150 IFR(0)=3ORR(1)=3ORR(2)=3ORD1=3ORD2=3
THEN6000
190 T=T+1:IFT=5THEN5000

```

```

200 GOSUB2000
210 X=0:Y=-1
220 IFC(X)=-2THEN500
225 IFC(X)=2THEN600
230 X=X+1:IFX<3THEN220
240 Y=0:X=-1
250 IFR(Y)=-2THEN500
260 IFR(Y)=2THEN600
270 Y=Y+1:IFY<3THEN250
280 IFD1=-2ORD2=-2THEN700
290 IFD1=2ORD2=2THEN800
295 IFB(1,1)=0THENB(1,1)=-1:GOTO900
300 X=INT(RND(1)*3):Y=INT(RND(1)*3):IFB(X,Y)=0THENB(X,Y)=-1:GOTO900
310 GOTO300
500 F=-1
505 IFX=-1THEN550
510 FORY=0TO2:IFB(X,Y)<>FTHENB(X,Y)=-1
520 NEXT:GOTO900
550 FORX=0TO2:IFB(X,Y)<>FTHENB(X,Y)=-1
560 NEXT:GOTO900
600 F=1:GOTO505
700 IFD2=-2THEN750
710 FORL=0TO2:IFB(L,L)<>-1THENB(L,L)=-1
720 NEXT:GOTO900
750 FORL=0TO2:IFB(L,2-L)<>-1THENB(L,2-L)=-1
760 NEXT:GOTO900
800 IFD2=2THEN850
810 FORL=0TO2:IFB(L,L)<>1THENB(L,L)=-1
820 NEXT:GOTO900
850 FORL=0TO2:IFB(L,2-L)<>1THENB(L,2-L)=-1
860 NEXT
900 GOSUB3000:GOSUB2000
910 IFD1=-3ORD2=-3ORR(0)=-3ORR(1)=-3ORR(2)=-3THEN4000
920 IFC(0)=-3ORC(1)=-3ORC(2)=-3THEN4000
930 GOTO100
2000 REM Computer Row,Column and Diagona
l totals
2005 FORL=0TO2:C(L)=0:R(L)=0:NEXT
2010 FORX=0TO2:FORY=0TO2
2020 C(X)=C(X)+B(X,Y)
2030 R(Y)=R(Y)+B(X,Y)

```

```
2040 NEXT:NEXT:D1=0:D2=0
2050 FORX=0T02
2060 D1=D1+B(X,X):D2=D2+B(X,2-X)
2070 NEXT:RETURN
3000 REM Display Board
3010 N=1:FORY=0T02:FORX=0T02
3020 IFB(X,Y)=0THENPOKE12628+120*Y+3*X,N
+48
3030 IFB(X,Y)=1THENPOKE12628+120*Y+3*X,A
SC("0")
3040 IFB(X,Y)=-1THENPOKE12628+120*Y+3*X,
ASC("X")
3050 N=N+1:NEXT:NEXT:RETURN
4000 PRINT"I WIN":GOTO6010
5000 PRINT"A DRAW":GOTO6010
6000 PRINT"YOU WIN"
6010 IFINKEY$<>" THEN6010
6020 IFINKEY$=" THEN6020
6030 RUN
```

DAY-FINDER

Have you ever wondered if your old dad was 'Fair of Face', 'Full of Grace', 'Full of Woe', had 'Far to Go' or, hopefully, was 'Full of Loving and Giving'?

Now is your chance to find out.

If you ask any member of your family, or your friends, when they were born you will be able to tell them, using this program, the actual day of the week when the great event happened.

By the way this is only effective as far back as 1st January, 1753 which was when the calendar changed to it's present form. Of course, you knew that didn't you.

Oh, by the way, we have taken account of leap years just in case you thought you could catch us out.

How to play

Enter in the year, then the month, then the date. Remember to put a 0 before the month if it's a single number. Also do the same with the day of the month.

```

10 DIMM$(12),D$(7)
30 FORZ=1TO12:READM$(Z):NEXT:FORZ=1TO7:R
EADD$(Z):NEXT
100 PRINTCHR$(11):PRINT:PRINT:PRINT"This
   program can be used to find the"
110 PRINT"day of the week on which any k
   nown"
120 PRINT"date falls.":PRINT:PRINT
130 PRINT"The year in question must be":
PRINT"after 1752"

```



```

140 PRINT:PRINT:PRINT:PRINT:PRINT
150 PRINT"Enter Year (1753-) ";
160 INPUTY:IFY<1753THENSOUND(50,200):GOT
0150
170 PRINT"Enter Month in year (1-12) ";
180 INPUTM:IFM>12ORM<1THENSOUND(50,200):
GOTO170
190 PRINT"Enter Day in Month ";
200 INPUTD1
210 IFD1<1ORD1>31THENSOUND(50,200):GOTO1
90
220 GOSUB300
225 IFD1>NTHENPRINT"No Such Date ":SOUND
(20,200):GOTO270
230 A=A+D1:D=A-INT(A/7)*7:IFD=0THEND=7
240 PRINT:PRINT:PRINT:PRINT:PRINT
250 PRINT"    ";D1;"    ";M$(M);"    ";Y
260 PRINT:PRINT"falls on a ";D$(D)
270 IFINKEY$<>""THEN270
280 IFINKEY$=""THEN280
290 RUN
300 A=0:A=Y+1+31*(M-1)+INT((Y-1)/4)-INT(
3*INT((Y+99)/100)/4)
310 IFM<=2THEN320
315 A=Y+1+31*(M-1)-INT((4*M+23)/10)+INT(
Y/4)-INT(3*(INT(Y/100)+1)/4)
320 A=A-INT(A/7)*7
330 IFA=0THENA=7
340 A=A-1:IFM=2THEN380
350 N=31
360 IFM=4ORM=6ORM=9ORM=11THENN=30
370 GOTO400
380 N=28
385 IFY-INT(Y/4)*4=0ANDY-INT(Y/100)*100<
>0ORY-INT(Y/400)*400=0THENN=29
400 RETURN
1000 DATAJANUARY,FEBRUARY,MARCH,APRIL,MA
Y,JUNE,JULY,AUGUST,SEPTEMBER
1010 DATAOCTOBER,NOVEMBER,DECEMBER
1020 DATASUNDAY;MONDAY,TUESDAY,WEDNESDAY
,THURSDAY,FRIDAY,SATURDAY

```

ALPHA-SORT

What a little boon this program is going to be for everyone with a collection, whether it be records, stamps, recipes, books or even computer programs.

This program will allow you to input fifty items, at random, and have them alphabetically sorted and represented.

If you have a printer then you will be able to run off a copy of your list and keep it with your collections.

If you wanted to be really clever you could incorporate this program with the decoder program, and file all your secret material in code. You would have to use the Text Saver program in addition to the Encode program.

How to play

Simply key in your information at random, and your Aquarius will do the rest for you.

Programming Hint

If you want to try and obtain more space try

```
15 CLEAR 400
```

```
10 REM Alphabetical Sort
20 PRINTCHR$(11)
25 PRINT:PRINT:PRINT:PRINT:PRINT
27 PRINT"Type DATA to sort"
30 PRINT:PRINT"Press RETURN to start sor
t"
```

```
40 PRINT:PRINT:PRINT:PRINT
50 L=0
60 DIMM$(50)
70 INPUTM$(L)
80 L=L+1
90 IFL=51ORM$(L-1)=" "THEN200
100 GOT070
200 F=0
210 FORS=0TOL-1
220 IFM$(S)<=M$(S+1)THEN250
230 F=1
235 T$=M$(S)
240 M$(S)=M$(S+1)
245 M$(S+1)=T$
250 NEXT
260 IFF=1THEN200
270 PRINTCHR$(11)
280 FORS=0TOL
290 PRINTM$(S)
300 NEXT
310 IFINKEY$<>" "THEN310
320 IFINKEY$=" "THEN320
330 RUN
```

MUSIC KEYBOARD

Now is your chance to become a new Stevie Wonder, Mozart or just a poor man's piano plunker.

We have turned your Aquarius into a miniature piano/organ by converting the keyboard into the black and white keys of a conventional piano.

How to play

use the keys W S E D F T G Y H U J K O L P for your masterwork.

The first key will start you off at C.

```

10 REM Music Keyboard
11 DIMN(18):FORL=1TO18:READN(L):NEXT
12 DIMK$(18):FORL=1TO18:READK$(L):NEXT
20 PRINTCHR$(11):PRINT:PRINT:PRINT:PRINT
" Aquarius Composer "
30 PRINT:PRINT:PRINT:PRINT" Play Now : "
40 N$=INKEY$
50 FORL=1TO18
60 IFN$=K$(L)THENSOUND(80,N(L))
70 NEXT:GOTO40
1000 DATA189,180,170,160,150,140,136,126
,118,110,104,98
1010 DATA92,87,83,77,72,69,65
1020 DATAa,w,s,e,d,f,t,g,y,h,u,j,k,o,l,p

```

NUMBER SHOOT

You are going to be asked to solve an addition sum and then fill in the answer. Sounds boring huh? Well, it's not. Not the way we have set it up for you.

You will have to be smart with your answers and sharp with your fingers because when you have worked out the answer you will be able to fill in the figure by shooting down the 'units' 'tens' and 'hundreds' necessary to provide the correct result. You will be given a score after ten attempts.

How to play

Press "<space>" to fire when the laser base is under the correct digit.

```

10 REM Number Shoot
20 SC=0:T=0
100 PRINTCHR$(11):POKE12369,32:FORL=1331
2T014311:POKEL,100:NEXT
105 IFINKEY$(("<space>"))THEN105
110 FORL=12348T013268STEP40:POKEL,214:NE
XT
120 FORL=0T09:POKE12432+L,L+48:NEXT
130 A=100+INT(RND(1)*400):B=100+INT(RND(
1)*400):C=A+B
140 A$=RIGHT$(STR$(A),3):B$=RIGHT$(STR$(
B),3):FORL=1T03
150 POKE12812+2*L,ASC(MID$(A$,L,1)):POKE
12892+2*L,ASC(MID$(B$,L,1)):NEXT
160 POKE12892,43:FORL=12932T012940:POKEL
,172:POKEL+120,172:NEXT
170 C$=RIGHT$(STR$(C),3):PRINT"UNITS":P=
3
180 GOSUB500:IFD(<>ASC(RIGHT$(C$,1)))THENG

```

```

0SUB600:GOTO240
190 PRINT"TENS":P=2
200 GOSUB500:IFD<>ASC(MID$(C$,2,1))THENG
0SUB600:GOTO240
210 PRINT"HUNDREDS":P=1
220 GOSUB500:IFD<>ASC(LEFT$(C$,1))THENG0
SUB600:GOTO240
230 PRINT:PRINT:PRINT"CORRECT":SC=SC+10
240 T=T+1:FORL=1TO2000:NEXT:IFT<>10THEN1
00
250 PRINTCHR$(11):PRINT:PRINT:PRINT:PRIN
T"AFTER 10 TURNS YOU HAVE SCORED ";SC
260 IFINKEY$<>" "THEN260
270 IFINKEY$=" "THEN270
280 RUN
500 FORL=13112TO13121:POKEL,32:NEXT
510 H=13112:D=1
520 POKEH,143:W=0
530 W=W+1:IFINKEY$<>" "THEN550
535 IFW<40THEN530
540 POKEH,32
545 H=H+D:IFH>13121ORH<13112THEND=-D:GOT
0545
547 GOTO520
550 FORL=H-40TOH-640STEP-40:POKEL+40,32:
POKEL,94
560 SOUND(20,(L-12408)/10):NEXT
565 POKEL+40,32
570 D=L-12384
580 POKE12972+P*2,D:RETURN
600 PRINT"INCORRECT":FORL=1TO2000:NEXT
610 PRINT:PRINT"THE ANSWER WAS":PRINT:PR
INT" ";C$
620 RETURN

```

TEXT SAVER

Your Aquarius is slightly peculiar in the sense that it will not, easily, accept and save text on tape.

To overcome this problem we have written this conversion program, so that text is converted to numeric symbols, which are then accepted by the computer.

Programming hint

If you have bought a memory expansion unit, you could use this with the alpha sort and decoder program to store and hide your information.

```

10 REM Text Saver
20 CLEAR100
30 DIMC(100)
35 S=100
37 M=0
40 PRINTCHR$(11):PRINT:PRINT:PRINT:PRINT
50 PRINT"1) Save Text to Tape"
60 PRINT"2) Load Text from Tape"
70 PRINT"3) Print Text in memory"
80 PRINT"4) Accept message from Keyboard"
85 PRINT:PRINT:PRINT:PRINT
90 K#=INKEY$:IFK#<"1"OR"4"THEN90
100 K=ASC(K#)-48
110 ON K GOSUB 200,300,400,500
120 IFINKEY#<>" "THEN120
130 IFINKEY#=""THEN130
140 GOTD40
200 IFM=0THENPRINT"No text to save":RETURN
210 FORL=1TOM
220 C(L)=ASC(MID$(M#,L,1))
230 NEXT

```

```
240 FORL=M+1TOS:C(L)=32:NEXT
245 C(S)=M
250 CSAVE* C
260 RETURN
300 CLOAD* C
305 M=C(S)
310 PRINT:PRINT:PRINT"Message Loaded"
320 RETURN
400 IFM=0THENPRINT"No text in memory":RE
TURN
410 M$=""
420 FORL=1TOM
430 M$=M$+CHR$(C(L))
440 NEXT
450 PRINTCHR$(11):PRINT:PRINT:PRINT:PRIN
T
460 PRINTM$
470 RETURN
500 PRINTCHR$(11):PRINT"Type Message Now

510 PRINT:PRINT:PRINT:PRINT:PRINT
520 INPUTM$
530 M=LEN(M$)
540 RETURN
```


REPORT PHRASE GENERATOR

If this title sounds rather heavy don't worry, it's not meant to scare, or bore, you.

We have called it a "report phrase" but it could be used for anyone who is writing essays, papers or anything which needs constant use of the same type of phrase over and over.

Imagine you are writing a report for your boss, or your teacher, and you have to use the word 'integrated' several times. Well now you can store, in advance, all the similar words with the same meaning and call them up at a moment's notice.

Now you are going to ask "What other words are similar to integrated?" We didn't say we were the answer to all your problems did we?

How to use

You key in the words that matter to you, using line 200 onwards.

: "RUN" the program

: Press a key, each time a phrase is required.

```
100 REM Report Generator
110 PRINTCHR$(11):PRINT:PRINT
120 FORL=1TO7:READA$(L),B$(L),C$(L):NEXT
130 IFINKEY$<>""THEN130
140 IFINKEY$=""THEN140
```

```
150 PRINTA$(INT(RND(1)*7+1));" ";B$(INT(RND(1)*7+1));" ";C$(INT(RND(1)*7+1))
160 PRINT:GOTO130
200 DATAON-GOING,HUMANISTIC,ENVIRONMENT
210 DATAMODULAR,INTEGRATED,SITUATION
220 DATADIFFERENTIATED,MOTIVATIONAL,PROCESS
230 DATAMINORITY,CREATIVE,EXPERIMENT
240 DATAOPEN-ENDED,VERTICAL,TECHNIQUE
250 DATAINDIVIDUAL,EVALUATIVE,RESOURCE
260 DATAHOMOGENEOUS,OBJECTIVE,FACILITY
```

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