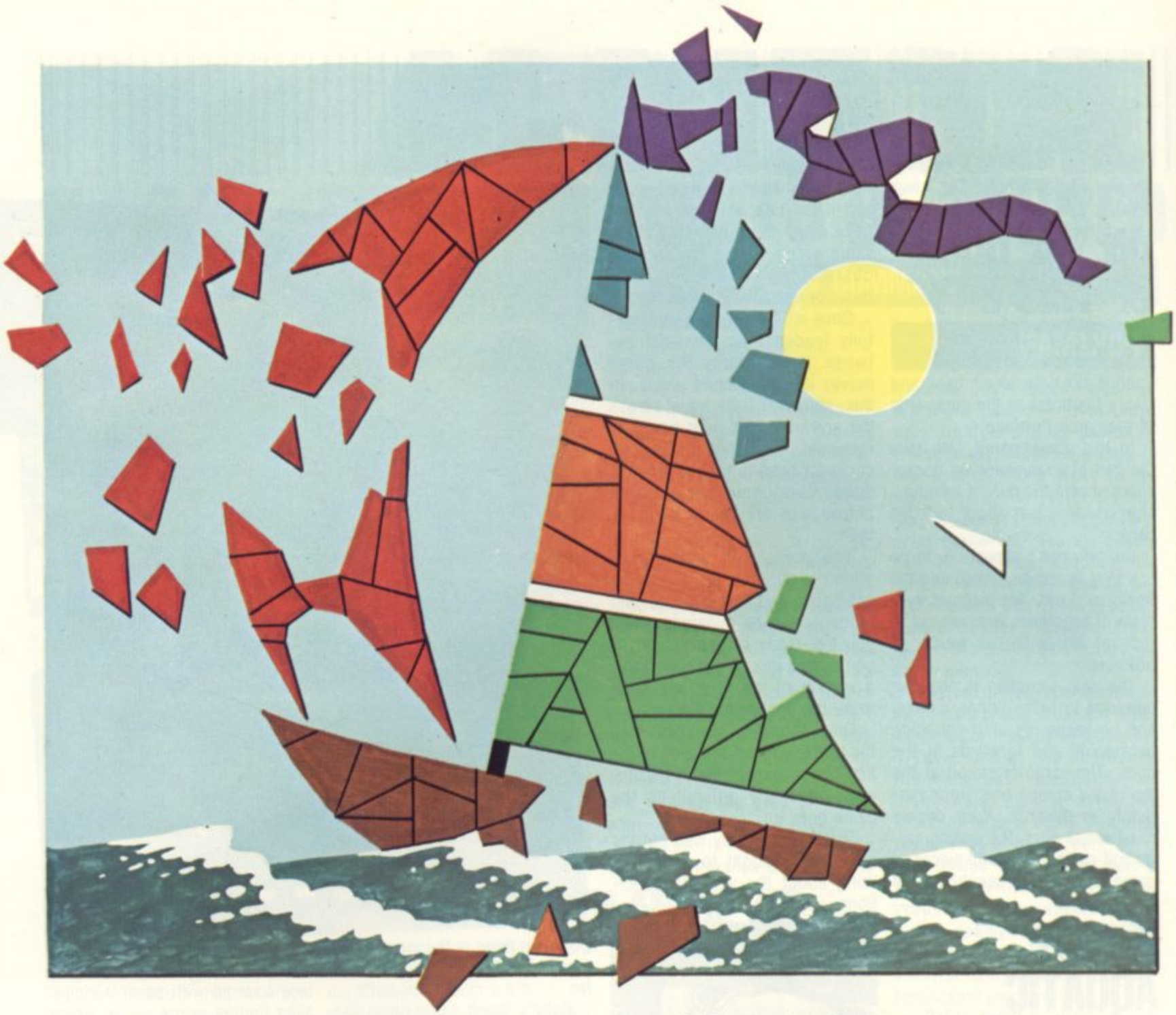


This program is based on those plastic puzzles which consist of 15 numbered plastic tiles which have to be arranged in ascending order of value. In the program the numbers are replaced by shapes which when positioned in correct order make a picture of a sail boat. This picture is displayed at the start of the program before the computer scrambles it.

Your task is to unscramble the bits and complete the picture in as few moves as possible. To do this you move pieces into the space marked with a cross.

If the section you want to move is above the space you must press M — the down key. Other keys used are U-up, H-left and K-right. There are five skill levels to the game. After you have become familiar with the method of moving the pieces you should be able to advance to higher levels which scramble the picture even more.

RUNS ON A

SHARP MZ-80K

BY JOSEPH HEWITSON

```
10 REM ***** MOSAIC *****
20 REM
30 REM  By Joseph Hewitson
40 REM
50 REM For the SHARP MZ-80K
60 REM
70 REM
100 DIMA$(17),A(16),B(16,4),C(16),D(16),E(16)
110 FORLOOP=1TO16:READA$(LOOP),A(LOOP)
115 FORRING=1TOA(LOOP):READB(LOOP,RING):NEXT:READD(LOOP),E(LOOP):NEXT
120 DATA "     ■■■■■   ■■■■■   ■■■■■     ",2,2,5,4,4
130 DATA "     ■■■■■   ■■■■■   ■■■■■     ",3,1,3,6,4,8
140 DATA "     ■■■■■   ■■■■■   ■■■■■     ",3,2,4,7,4,12
150 DATA "     ■■■■■   ■■■■■   ■■■■■     ",2,3,8,4,16
160 DATA "     ■■■■■   ■■■■■   ■■■■■     ",3,1,6,9,8,4
170 DATA "   ■■■■■   ■■■■■   ■■■■■     ",4,2,5,7,10,8,8
180 DATA "   ■■■■■   ■■■■■   ■■■■■     ",4,3,6,8,11,8,12
190 DATA "     ■■■■■   ■■■■■   ■■■■■     ",3,4,7,12,8,16
200 DATA "   ■■■■■   ■■■■■   ■■■■■     ",3,5,10,13,12,4
210 DATA "   ■■■■■   ■■■■■   ■■■■■     ",4,6,9,11,14,12,8
220 DATA "   ■■■■■   ■■■■■   ■■■■■     ",4,7,10,12,15,12,12
230 DATA "   ■■■■■   ■■■■■   ■■■■■     ",3,8,11,16,12,16
290 DATA "   ■■■■■   ■■■■■   ■■■■■     ",2,9,14,16,4
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```
300 DATA "■■■□□□□□■■■□□□□□~~~□□□□□~~~",3,10,13,15,16,8
310 DATA "■■■□□□□□■■■□□□□□~~~□□□□□~~~",3,11,14,16,16,12
320 DATA "■~~~□□□□□~~~□□□□□~~~□□□□□~~~",2,12,15,16,16
325 PRINT"■"
330 FORLOOP=6TO41:SETLOOP,6:NEXT
340 FORLOOP=6TO41:SET41,LOOP:NEXT
350 FORLOOP=41TO6STEP-1:SETLOOP,41:NEXT
360 FORLOOP=41TO6STEP-1:SET6,LOOP:NEXT
370 FORLOOP=1TO16:POKE4466,D(LOOP):PRINTTAB(E(LOOP));A$(LOOP):NEXT
380 PRINT"■":PRINTTAB(24);"■■■■■■A life on the "
390 PRINTTAB(26);"ocean wave'"
400 PRINTTAB(24);"■A home on the"
410 PRINTTAB(26);"rolling sea'"
420 PRINTTAB(24);"■Where the "
430 PRINTTAB(26);"scattered"
440 PRINTTAB(26);"waters rave,"
450 PRINTTAB(24);"■And the wind"
460 PRINTTAB(26);"their revels"
470 PRINTTAB(26);"keep."
480 GOSUB3000
490 FORLOOP=1TO1000:NEXT
510 FORLOOP=6TO18:POKE4466,LOOP:PRINTTAB(24);"                    ":NEXT
530 PRINT"■":PRINTTAB(25);"■■■■■INSTRUCTIONS"
540 PRINTTAB(24);"■I will scramble"
550 PRINTTAB(26);"this picture."
560 PRINTTAB(24);"■Then you have"
570 PRINTTAB(26);"to unscramble"
580 PRINTTAB(26);"it!"
590 PRINTTAB(24);"■To do this you"
600 PRINTTAB(26);"have to move"
610 PRINTTAB(26);"pieces into"
620 PRINTTAB(26);"the space,"
630 PRINTTAB(26);"marked 'X'."
640 FORLOOP=1TO5000:NEXT
650 FORLOOP=5TO18:POKE4466,LOOP:PRINTTAB(24);"                    ":NEXT
660 PRINT"■":PRINTTAB(24);"■■■■■■To move a"
670 PRINTTAB(26);"piece into the"
680 PRINTTAB(26);"■space, key in"
690 PRINTTAB(26);"the direct-"
700 PRINTTAB(26);"ion you wish"
710 PRINTTAB(26);"the piece to"
720 PRINTTAB(26);"move."
730 PRINTTAB(24);"■U - UP"
740 PRINTTAB(24);"H - LEFT"
750 PRINTTAB(24);"K - RIGHT"
760 PRINTTAB(24);"M - DOWN"
770 FORLOOP=1TO5000:NEXT
780 FORLOOP=6TO17:POKE4466,LOOP:PRINTTAB(24);"                    ":NEXT
790 REM *** SKILL SELECTION ***
800 PRINT"■";:PRINTTAB(24);"■■■■■■SKILL LEVEL"
810 PRINTTAB(24);"■1: Beginner"
820 PRINTTAB(24);"■2: Improver"
830 PRINTTAB(24);"■3: Apprentice"
840 PRINTTAB(24);"■4: Expert"
850 PRINTTAB(24);"■5: Whizz-kid"
860 SWAPS=0:GETIN$:IFIN$=""THEN860
870 IFIN$="1"THENSWAPS=3
880 IFIN$="2"THENSWAPS=10
890 IFIN$="3"THENSWAPS=17
900 IFIN$="4"THENSWAPS=21
910 IFIN$="5"THENSWAPS=97
920 IFSWAPS=0THEN860
930 LEVEL=VAL(IN$)
940 FORLOOP=3TO20:POKE4466,LOOP:PRINTTAB(24);"                    ":NEXT:USR(62)
1000 REM *** SHUFFLE ***
1010 FORLOOP=1TO16:C(LOOP)=LOOP:NEXT
1020 SPACE=8:MOVE=0
1030 FOR LOOP = 1TO SWAPS
1040 CHANGE=INT(RND(1)*A(SPACE))+1
1050 A1=B(SPACE,CHANGE):A2=C(A1):C(A1)=C(SPACE):C(SPACE)=A2:SPACE=A1:NEXT
1060 A$(8)="     ■■■■■ ∨ ■■■■■ ∧ ■■■■■     "
1070 FORLOOP=1TO16:POKE4466,D(LOOP):POKE4465,E(LOOP):PRINTA$(C(LOOP)):NEXT
2000 GETIN$:IFIN$=""THEN2000
2010 IFIN$="U"THENOTHER=SPACE+4
2020 IFIN$="H"THENOTHER=SPACE+1:IF(OTHER=5)+(OTHER=9)+(OTHER=13)THEN2000
2030 IFIN$="K"THENOTHER=SPACE-1:IF(OTHER=4)+(OTHER=8)+(OTHER=12)THEN2000
2040 IFIN$="M"THENOTHER=SPACE-4
2050 IF(OTHER(1)+(OTHER)16)THEN2000
2060 A1=C(OTHER)
2070 C(OTHER)=C(SPACE):C(SPACE)=A1:A2=SPACE:SPACE=OTHER:OTHER=A2
2080 POKE4466,D(SPACE):PRINTTAB(E(SPACE));A$(C(SPACE))
2090 POKE4466,D(OTHER):PRINTTAB(E(OTHER));A$(C(OTHER)):MOVE=MOVE+1
2180 RIGHT=0:FORLOOP=1TO16:IFC(LOOP)=LOOPTHENRIGHT=RIGHT+1
2190 NEXT
2200 IFRIGHT(16THEN2000
2210 FORLOOP=1TO3
2220 MUSIC"▁C0▁D▁E▁F▁G▁A▁BCDEFGAB▔C▔D▔E▔F▔G▔A▔B":NEXT
2230 PRINT"■■■■■"
2240 PRINTTAB(24);"On Level";LEVEL;","
2250 PRINTTAB(24);"■You took";MOVE
2260 PRINTTAB(24);"■moves."
2270 GOSUB3000
2280 PRINTTAB(24);"■■■■■■Try Again (Y/N)"
2290 GETIN$:IFIN$=""THEN2290
2300 IFIN$="N"THENPRINT"■"::END
2310 IFIN$="Y"THEN2330
2320 GOTO2290
2330 FORLOOP=5TO16:POKE4466,LOOP:PRINTTAB(24);"                    ":NEXT:GOTO790
3000 TEMPO6:MUSIC"D3R0D3R0G3R0G3R0G5R0G1R0B6R5G1R0B3R0B3R0B3R0▔C5R0B1R0A6R4"
3010 MUSIC"A3R0F3R0D5R0F3R0A5R0B3R0▔C6R4"
3020 MUSIC"▔C3R0▔D3R0▔E5R0▔D3R0▔C3R0B3R0A3R0G5"
3030 RETURN
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