

# Countabout

Kids and computers just don't mix. Not if it's your computer that is. They take up far too much valuable hacking time. However it has to be conceded that micros do have a role in the pedagogic process, and so it is not without some reluctance that we have included a selection of educational programs, of which this is one. This is for the very small, and has been designed to keep them quiet while you have an algorithm to work on, whilst at the same time teaching them the basics of counting.

The program sets a series of counting problems from the numbers one to nine. You know, count the ships, flowers, cats, houses or whatever and - if the answer is correct - reward the little angels with ships moving, cats smiling, telephones ringing or the like.

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      5  REM *COUNTABOUT* BBC VERSION*      CONVE
RSION I.THOMAS.ORIGINAL @WALWYN.
    10 ENVELOPE1,1,2,-2,0,1,1,0,128,0,0,-31,12
8,0
    20 X=0:GOSUB890
    30 Z$=STRING$(29,CHR$9)
    40 MODE1:VDU28,4,30,35,4,19,1,9;0;:PRINTTA
B(11)"COUNTABOUT""A counting game for child
ren      aged 2-5."
    50 GOSUB390
    60 PRINT""Press any key to start the game
":*FX15
    70 GOTO90
    80 PRINTTAB(10,22)"Press any key":*FX15
    90 K=GET
   100 CLS
   110 Q=RND(9)
   120 K=RND(5)
   130 J=4:FORI=1TOQ
   140   IFI=4 ORI=7 J=4
   150   ON((I-1) DIV3+1) GOSUB560,570,580
   160   PRINTSTRING$(J,CHR$9);
   170   IFX=1 GOTO200
   180   ONK GOSUB640,670,710,740,760
   190   GOTO210

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200   ONK GOSUB780,790,810,830,860
210   J=J+10:NEXT
220   COLOUR3
230   IFX=1 X=0:GOTO350
240   PRINTTAB(0,0);" H O W   M A N Y   ";N$;" ?
";
250   *FX15
260   A=GET-48:IFA<1 OR A>9 GOTO250
270   PRINT;A
280   IFA=Q CLS:GOTO320
290   IFABS(A-Q)=1 GOTO330
300   VDU7:COLOUR1:PRINT'" N O, W R O N G   A N
S W E R. "
310   GOSUB590:GOTO240
320   X=1:GOTO130
330   COLOUR2:PRINT'" V E R Y   N E A R L Y ! "
340   GOSUB590:GOTO240
350   GOSUB600:COLOUR1:PRINTTAB(9,0)" C O R R
E C T "
360   IFQ=1 PRINT;Q;"   ";LEFT$(N$,LEN(N$)-2):
GOTO380
370   PRINTQ;"   ";N$
380   FORF=1TO2000:NEXT:GOSUB430:GOTO80
390   PRINT'"There is no need to use the
RETURN key in this program."
400   PRINT'"Once the child knows where the
numbers 1 to 9 are on the      keyboard,you
can sit back and      let the computer do a bit
of      teaching."
410   PRINT'"(The function keys f1 to f9 can
be used as well as the number      keys."
420   RETURN
430   ON Q GOTO440,450,460,470,480,490,500,51
0,520
440   A$="AB   B   B ":GOTO530
450   A$="CEDCEFGEE":GOTO530
460   A$="CED EJGEF":GOTO530
470   A$=" _ A BHHI":GOTO530
480   A$="KEEGEDGEF":GOTO530
490   A$="CEDLEGEF":GOTO530
500   A$=" __   A A ":GOTO530
510   A$="CEDLEJGEF":GOTO530
520   A$="CEDGEJGEF"
530   B$="":FORI=1TO9:IFMID$(A$,I,1)<>" " AND
MID$(A$,I,1)<>"_" B$=B$+CHR$(ASC(MID$(A$,I,1)

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) +159) ELSE B$=B$+MID$(A$,I,1)
540 NEXT
550 PRINTLEFT$(B$,3)'MID$(B$,4,3)'RIGHT$(B$,3):RETURN
560 PRINTTAB(0,5);:RETURN
570 PRINTTAB(0,11);:RETURN
580 PRINTTAB(0,17);:RETURN
590 FORL=1TO3000:NEXT
600 PRINTTAB(0,0)SPC(31)
610 FORL=1TO3
620 PRINTSPC(31)
630 NEXT:RETURN
640 N$="H O U S E S":COLOUR3
650 PRINT" ";LEFT$(Z$,28)" ";CHR$240;CHR$255;CHR$255;CHR$255;CHR$239;LEFT$(Z$,26);CHR$240;STRING$(5,CHR$255);CHR$239;LEFT$(Z$,25);CHR$225" ";CHR$225;LEFT$(Z$,24);CHR$225" ";CHR$242;" ";CHR$225;
660 RETURN
670 N$="C A T S":COLOUR2
680 PRINT" "CHR$240" "CHR$239;LEFT$(Z$,28)STRING$(4,CHR$255)LEFT$(Z$,27)"="CHR$237;CHR$255;CHR$255;CHR$238"="LEFT$(Z$,27);
690 PRINTCHR$240;CHR$255;CHR$255;CHR$239;LEFT$(Z$,28)STRING$(4,CHR$255);
700 RETURN
710 N$="T E L E P H O N E S":COLOUR2
720 PRINTCHR$240;CHR$255;CHR$255;CHR$255;CHR$239;LEFT$(Z$,28);:COLOUR130:COLOUR0:PRINT"(o)";:COLOUR128:COLOUR2
730 RETURN
740 N$="S H I P S":COLOUR0:COLOUR131
750 PRINT"_"CHR$241;CHR$241;CHR$241;LEFT$(Z$,27)CHR$239":::::"CHR$240;:COLOUR128:RETURN
760 N$="V A N S":COLOUR3
770 PRINT" "CHR$224;CHR$255;CHR$255;LEFT$(Z$,28)STRING$(4,CHR$255)LEFT$(Z$,28)CHR$244;CHR$241;CHR$241;CHR$244;:RETURN
780 SOUND1,-15,RND(100),4:GOSUB640:COLOUR2:FORW=0TO1000:NEXT:PRINTCHR$8;CHR$8;CHR$8;CHR$254;CHR$8;CHR$8;CHR$8;CHR$8;CHR$8;CHR$254:FORW=0TO1000:NEXT:RETURN
790 COLOUR2:PRINT" "CHR$240" "CHR$239;LEFT$(Z$,28);:COLOUR130:COLOUR0:PRINT" ";CHR$244;CHR$244" ";:COLOUR2:COLOUR128:PRINTLEFT$(Z$,2
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7) "="CHR$237;CHR$255;CHR$255;CHR$238"="LEFT$(
Z$,27);:COLOUR130:COLOUR0
800 SOUND1,-15,RND(100)+100,4:PRINTCHR$238;
CHR$230;CHR$229;CHR$237;:COLOUR2:COLOUR128:PR
INTLEFT$(Z$,28)STRING$(4,CHR$255);:FORW=0TO20
00:NEXT:RETURN
810 GOSUB710
820 SOUND1,1,120,7:FORW=0TO1000:NEXT:SOUND1
,1,120,10:FORW=0TO2400:NEXT:RETURN
830 GOSUB740:SOUND1,1,RND(50),5:FORW=0TO400
:NEXT:IFI<>Q RETURN
840 FORW=26TO2STEP-1:PRINTTAB(W,20);:GOSUB7
40:IFW=18 ORW=8 SOUND1,-15,0,10
850 FORK=0TO400:NEXT:PRINTTAB(0,20)SPC(96):
NEXT:RETURN
860 GOSUB760:SOUND1,1,RND(50)+50,5:FORW=0TO
400:NEXT:IFI<>Q RETURN
870 FORW=26TO0STEP-1:PRINTTAB(W,20);:GOSUB7
60:IFW=18 ORW=8 SOUND1,-15,70,4:SOUND1,0,0,2:
SOUND1,-15,70,6
880 FORK=0TO400:NEXT:PRINTTAB(0,20)SPC(96):
NEXT:RETURN
890 RESTORE:FORF=0TO7:READA,B
900 ?(&C00+F)=A
910 ?(&C08+F)=128
920 ?(&C10+F)=B
930 NEXT
940 FORF=0TO7:READ?(&C18+F)
950 ?(&C20+F)=0:IFF=3 ?(&C20+F)=255
960 READ?(&C28+F),?(&C30+F)
970 NEXT
980 FORF=0TO7
990 ?(&C40+F)=128
1000 ?(&C38+F)=0
1010 ?(&C48+F)=16
1020 READ?(&C50+F)
1030 ?(&C58+F)=8
1040 ?(&C60+F)=1
1050 ?(&C68+F)=(2^(7-F))-1
1060 ?(&C70+F)=256-(2^F)
1070 ?(&C78+F)=256-(2^(7-F))
1080 ?(&C80+F)=(2^F)-1
1090 ?(&C88+F)=0
1100 READ?(&C90+F)
1110 ?(&C98+F)=16

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1120 NEXT
1130 FORF=0TO7:READ?(&CA0+F):NEXT
1140 ?&C38=255
1150 ?&C40=255
1160 ?&C4B=240
1170 ?&C5B=15
1180 ?&C60=255
1190 ?&C88=255: ?&C89=255
1200 DATA1,0,2,0,4,0,8,3,16,4,32,8,64,8,128,
8
1210 DATA0,16,8,0,16,8,0,32,4,192,192,3,32,0
,0,16,0,0,16,0,0,16,0,0
1220 DATA0,213,0,171,0,213,15,171,8,213,8,17
1,8,213,8,171
1230 DATA0,60,126,126,126,126,126,60,0
1240 VDU23,255,255,255,255,255,255,255,255,2
55
1250 VDU23,254,127,73,73,127,73,73,127,0
1260 FORI=1TO9:$&900="*KEY"+STR$(I)+" "+STR$
(I)
1270 X%=0:Y%=&9:CALL&FFF7:NEXT
1280 RETURN
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