

HEUREDUC

Heureduc est un petit jeu éducatif permettant aux tout-petits de faire leurs premiers pas dans le difficile apprentissage de

l'heure. L'ordinateur affiche une heure en chiffre et l'enfant doit faire tourner les aiguilles de la montre pour les positionner

sur la bonne heure. Apprentissage et exercices attrayants. Une bonne manière d'apprendre l'heure... Mode d'emploi com-

plet dans le programme.

Pierre Galicher

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10 '***** [1460]
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20 '*** [51]
***
30 '*** HEUREDUC [713]
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40 '*** [51]
***
50 '*** Pierre GALICHER [951]
***
60 '*** Oct. 1986 [352]
***
70 '*** pour mon fils RAPHAEL [1419]
***
80 '***** [1460]
****
90 ' GRAPHI [514]
QUES
100 ON ERROR GOTO 1510 [1517]
110 SYMBOL AFTER 145 [1459]
120 SYMBOL 145,0,28,126,30,62,28,8, [2013]
28
130 SYMBOL 146,158,127,29,29,60,38, [2016]
98,6
140 SYMBOL 147,28,28,28,28,12,12,12 [1729]
,28
150 SYMBOL 149,126,24,60,126,126,12 [2497]
6,255,24
160 SYMBOL 150,0,0,0,0,0,0,3,3 [1428]
170 SYMBOL 151,0,56,126,120,124,56, [1981]
16,56
180 SYMBOL 152,121,254,184,184,60,1 [2275]
00,70,96
190 SYMBOL 153,56,56,56,56,48,48,48 [1979]
,56
200 '***** [1391]
****
210 ' INITIALISA [1184]
TION
220 MODE 1:SPEED INK 15,15:INK 0,0: [5520]
INK 1,17:INK 2,26:INK 3,6:PAPER 1:P

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EN 0:BORDER 2
230 DIM HS(12),MS(12),A(12),b(12),S [1635]
ON(16),A$(12),B$(12),C$(12)
240 WINDOW#2,19,40,1,25:PAPER#2,1:C [6459]
LS#2:WINDOW#1,3,16,21,23:WINDOW#3,1
,18,1,15:LOCATE 19,13:PRINT STRING$
(22,126)
250 G$=CHR$(145)+CHR$(8)+CHR$(10)+C [12798]
HR$(147)+" ":G1$=CHR$(145)+CHR$(8)+
CHR$(10)+CHR$(146)+" ":G2$=CHR$(151
)+CHR$(8)+CHR$(10)+CHR$(152)+" ":G3
$=CHR$(151)+CHR$(8)+CHR$(10)+CHR$(1
53)+" ":G4$=" "+CHR$(8)+CHR$(10)+"
"
260 SON(1)=95:SON(2)=71:SON(3)=106: [13288]
SON(4)=80:SON(5)=119:SON(6)=95:SON(
7)=71:SON(8)=106:SON(9)=80:SON(10)=
119:SON(11)=95:SON(12)=119:SON(13)=
80:SON(14)=106:SON(15)=71:SON(16)=9
5:He=12:ME=12
270 '***** [1391]
****
280 ' PRESENTATION & INSTRUC [1466]
TION
290 A$(1)=" H E U R E D U C":A$( [15213]
2)=" est un petit jeu":A$(3)=" ed
ucatif ,permettant":A$(4)="de faire
les premiers":A$(5)=" pas d'appren
tissage":A$(6)=" de l'heure .":A$(7
)=" L'AIDE:":A$(8)=" pour l'obtenir
comme"
300 A$(9)=" pour la supprimer il":A$ [17671]
(10)=" suffit d'appuyer sur":A$(11)
=" [ A ]":A$(12)=" TAPEZ SUR UNE T
OUCHE":B$(1)=" Cette aide ecrit":B$
(2)=" tout simplement en":B$(3)=" e
n chiffres l'heure":B$(4)=" que rep
resente les"
310 B$(5)=" aiguilles que vous":B$( [16665]
6)=" faites bouger":B$(7)=" Pour ch
anger les":B$(8)=" HEURES tapez sur
":B$(9)=" [ H ]":B$(10)=" Pour chan

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ger les":B$(11)=" MINUTES tapez sur
":B$(12)=" [ M ]":C$(1)=" Pour conf
irmer":C$(2)=" votre proposition"
320 C$(2)=" votre proposition":C$(3 [17332]
)=" il suffit de taper":C$(4)=" XEN
TERX. Si tout est":C$(5)=" faux: 0
cloche.":C$(6)=" Si vous avez, soi
t":C$(7)=" les HEURES, soit":C$(8)=
" les MINUTES justes":C$(9)=" 1 clo
che.Si tout est"
330 C$(10)=" bon 2 cloches.Sur un": [7096]
C$(11)="maximum de 10 Cloches":C$(1
2)=" BON COURAGE !!!"
340 GOSUB 700:GOSUB 740:GOSUB 900:P [12209]
EN 1:LOCATE 2,19:PRINT"H E U R E D
U C":LOCATE 4,22:PEN 3:PRINT"realis
e par":LOCATE 2,24:PEN 2:PRINT"GALI
CHER PIERRE":FOR I=2 TO 17 STEP 2:L
OCATE I,16:PRINT CHR$(149):NEXT
350 FOR HE=1 TO 12:GOSUB 1390:IF HE [5186]
=1 OR HE=7 OR HE=11 THEN PEN#2,2 EL
SE PEN#2,3:IF HE=12 THEN PEN#2,0
360 GOSUB 740:SOUND 1,1,1,15,1,1,31 [10336]
:PRINT#2:PRINT#2,A$(HE):NEXT HE:FOR
I=1 TO 2500:NEXT:GOSUB 1440:CALL &
BB16:CLS#2:PAPER 1:PEN 0:LOCATE 19,
13:PRINT STRING$(22,126)
370 FOR ME=1 TO 12:GOSUB 1390:IF ME [3276]
=9 OR ME=12 THEN PEN#2,2 ELSE PEN#2
,3
380 GOSUB 900:SOUND 1,1,1,15,1,1,31 [10704]
:PRINT#2:PRINT#2,B$(ME):NEXT ME:FOR
I=1 TO 2500:NEXT:GOSUB 1440:LOCATE
33,24:PRINT"TAPEZ":LOCATE 30,25:PR
INT"une touche":CALL &BB16:CLS#2
390 FOR HE=1 TO 12:GOSUB 1390:IF HE [3362]
=12 THEN PEN#2,2 ELSE PEN#2,3
400 GOSUB 740:SOUND 1,1,1,15,1,1,31 [9143]
:PRINT#2:PRINT#2,C$(HE):NEXT HE:FOR
I=1 TO 2500:NEXT:GOSUB 1440:LOCATE
22,25:PRINT"TAPEZ une touche":CALL
&BB16:GOSUB 1440
410 '***** [1391]
****
420 ' MISE EN PAGE & [972]
MENU
430 PAPER 0:CLS:WINDOW#2,19,40,17,2 [4416]
5:CLS#2:PAPER#1,1:CLS#1:PEN#1,0
440 PRINT CHR$(22)+CHR$(1):PEN 2:L [12482]
OCATE 2,20:PRINT STRING$(15,238):LO
CATE 2,24:PRINT STRING$(15,238):FOR
I=20 TO 24:LOCATE 2,I:PRINT CHR$(2
38):LOCATE 17,I:PRINT CHR$(238):NEX
T:PEN 3:LOCATE 2,20:PRINT STRING$(1
5,144)
450 LOCATE 2,24:PRINT STRING$(15,14 [6503]
4):FOR I=20 TO 24:LOCATE 2,I:PRINT
CHR$(144):LOCATE 17,I:PRINT CHR$(14
4):NEXT:PRINT CHR$(22)+CHR$(0);
460 PEN 3:PAPER 1:LOCATE 20,24:PRIN [9427]
T"ENTER":PEN 0:PRINT" pour confirm
er":PEN 3:LOCATE 20,20:PRINT"H":PE
N 0:PRINT" change les HEURES":PEN 3
470 LOCATE 20,22:PRINT"M":PEN 0:PR [9846]
INT" change les MINUTES":PEN 3:LOCA
TE 20,18:PRINT"A":PEN 0:LOCATE 22,
18:PRINT"pour avoir l'AIDE"
480 '***** [1391]
****
490 ' [191]
JEU
500 He=12:ME=12:GOSUB 700:GOSUB 900 [7625]
:GOSUB 740:PEN 1:LOCATE 19,11:PRINT
p:"cloches sur":T:FOR D=20 TO 20+(
P-1)*2 STEP 2:PEN 2:LOCATE D,13:PRI
NT CHR$(149):NEXT
510 RESTORE 1070:FOR H=1 TO 12:READ [6370]
HS(H):NEXT:RESTORE 1080:FOR M=1 TO
12:READ MS(M):NEXT:H=INT(RND*12)+1
:M=INT(RND*12)+1
520 PEN 1:PAPER 0:LOCATE 2,18:PRINT [4904]
"Je vous propose:"
530 LOCATE#1,2,2:PRINT#1,HS(H);"h " [10724]
:LOCATE#1,8,2:PRINT#1,MS(M);"m " :T
=T+2:IF T=2 THEN QW=20 ELSE IF T=4
THEN QW=23 ELSE IF T=6 THEN QW=26 E
LSE IF T=8 THEN QW=29 ELSE IF T=10
THEN QW=32
540 GOSUB 1480 [819]
550 CH$=INKEY$:IF CH$="" THEN 550 E [5738]
LSE PEN 1:IF INKEY(18)=0 THEN 630
560 IF INKEY(69)=0 THEN PAPER 1:PEN [10936]
0:IF AIDE=0 THEN AIDE=1:LOCATE 22,
18:PRINT"suprime l'AIDE " :GOTO 61
0 ELSE IF AIDE=1 THEN AIDE=0:LOCATE
22,18:PRINT"pour avoir l'AIDE":GOT
O 610
570 IF INKEY(44)=0 THEN HE=HE+1:SOU [2866]
ND 1,1,1,15,1,1,31:IF HE>12 THEN HE
=1
580 IF INKEY(38)=0 THEN ME=ME+1:SOU [3598]
ND 1,1,1,15,1,1,31:IF ME>12 THEN ME
=1
590 RESTORE 1070:FOR I=1 TO 12:READ [4749]
A(I):NEXT:RESTORE 1080:FOR I=1 TO
12:READ B(I):NEXT
600 GOSUB 900:GOSUB 740 [2092]
610 PAPER 0:IF AIDE=1 THEN PEN 2:LO [7552]
CATE 3,16:PRINT A(HE);" h ";B(ME)"
m "; ELSE LOCATE 1,16:PRINT CHR$(
18)
620 GOTO 550 [431]
630 FOR Q=39 TO QW STEP -1:PEN 1:LO [4373]
CATE Q,8:SOUND 1,900,2,i0,1,1,31

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640 IF Q=38 OR Q=36 OR Q=34 OR Q=32 [5082]
   OR Q=30 OR Q=28 OR Q=26 OR Q=24 OR
   Q=22 OR Q=20 THEN PRINT G$ ELSE PR
INT G1$
650 LOCATE Q+1,8:PRINT" ":FOR W=1 T [6164]
O 200:NEXT W,Q:LOCATE QW,8:PRINT G1
$:GOSUB 1440:LOCATE QW,8:PRINT G$
660 IF A(HE)=HS(H) AND B(ME)=MS(M) [2667]
THEN 1110
670 IF A(HE)=HS(H) THEN 1140 [1195]
680 IF B(ME)=MS(M) THEN 1170 [1180]
690 GOTO 1200 [363]
700 ***** [1391]
****
710          DESSIN DE LA PEN [1193]
DULE
720 PAPER#3,0:CLS#3:FOR I=1 TO 48:0 [8531]
RIGIN 120,200:PLOT 24+100*COS(I),90
+100*SIN(I),2:SOUND 1,10,1,10:NEXT:
PAPER 0:PEN 3:LOCATE 9,1:PRINT"12":
LOCATE 5,2
730 PRINT"11":LOCATE 14,2:PRINT"1": [16735]
LOCATE 3,4:PRINT"10":LOCATE 16,4:PR
INT"2":LOCATE 2,7:PRINT"9":LOCATE 1
7,7:PRINT"3":LOCATE 3,10:PRINT"8":L
OCATE 16,10:PRINT"4":LOCATE 5,13:PR
INT"7":LOCATE 14,13:PRINT"5":LOCATE
 9,14:PRINT"6":RETURN
740 ***** [1391]
****
750          DESSIN DES PETITES AIGUI [1201]
LLES
760 MOVE 23,92 [323]
770 IF HE=1 THEN DRAW 64,131,2:MOVE [2269]
   23,92:DRAW 30,144,0
780 IF HE=2 THEN DRAW 80,113,2:MOVE [2334]
   23,92:DRAW 64,131,0
790 IF HE=3 THEN DRAW 75,87,2:MOVE [2890]
   23,92:DRAW 80,113,0
800 IF HE=4 THEN DRAW 75,65,2:MOVE [2945]
   23,92:DRAW 75,87,0
810 IF HE=5 THEN DRAW 59,39,2:MOVE [1625]
   23,92:DRAW 75,65,0
820 IF HE=6 THEN DRAW 19,40,2:MOVE [2230]
   23,92:DRAW 59,39,0
830 IF HE=7 THEN DRAW -9,56,2:MOVE [2819]
   23,92:DRAW 19,40,0
840 IF HE=8 THEN DRAW -28,70,2:MOVE [2708]
   23,92:DRAW -9,56,0
850 IF HE=9 THEN DRAW -29,97,2:MOVE [2866]
   23,92:DRAW -28,70,0
860 IF HE=10 THEN DRAW -28,123,2:MO [2481]
VE 23,92:DRAW -29,97,0
870 IF HE=11 THEN DRAW -9,140,2:MOV [2310]
E 23,92:DRAW -28,123,0
880 IF HE=12 THEN DRAW 30,144,2:MOV [2685]
E 23,92:DRAW -9,140,0
890 RETURN [555]
900 ***** [1391]
****
910          DESSIN DES GRANDES AIGUI [598]
LLES
920 MOVE 23,92 [323]
930 IF ME=12 THEN DRAW 23,178,1:MOV [1889]
E 23,92:DRAW -30,165,0
940 IF ME=1 THEN DRAW 80,155,1:MOVE [2259]
   23,92:DRAW 23,178,0
950 IF ME=2 THEN DRAW 100,125,1:MOV [2042]
E 23,92:DRAW 80,155,0
960 IF ME=3 THEN DRAW 109,92,1:MOVE [2516]
   23,92:DRAW 100,125,0
970 IF ME=4 THEN DRAW 100,59,1:MOVE [2214]
   23,92:DRAW 109,92,0
980 IF ME=5 THEN DRAW 75,22,1:MOVE [3165]
   23,92:DRAW 100,59,0
990 IF ME=6 THEN DRAW 23,6,1:MOVE 2 [1761]
   3,92:DRAW 75,22,0
1000 IF ME=7 THEN DRAW -30,19,1:MOV [3197]
E 23,92:DRAW 23,6,0
1010 IF ME=8 THEN DRAW -50,54,1:MOV [1599]
E 23,92:DRAW -30,19,0
1020 IF ME=9 THEN DRAW -63,92,1:MOV [3159]
E 23,92:DRAW -50,54,0
1030 IF ME=10 THEN DRAW -50,130,1:M [1529]
OVE 23,92:DRAW -63,92,0
1040 IF ME=11 THEN DRAW -30,165,1:M [4538]
OVE 23,92:DRAW -50,130,0
1050 RETURN [555]
1060 ***** [1416]
****
1070 DATA 1,2,3,4,5,6,7,8,9,10,11,1 [1210]
2
1080 DATA 5,10,15,20,25,30,-25,-20 [1782]
,-15,-10,-5,0
1090 DATA 239,30,213,30,190,30,239, [10880]
30,239,30,213,30,190,30,239,30,190,
30,179,30,159,60,190,30,179,30,159,
60,159,30,142,7,159,30,179,15,190,4
0,239,30,159,30,142,7,159,30,179,15
,190,40,239,30,239,50,319,50,239,10
0,239,50,319,50,239,100
1100 DATA 239,60,239,60,268,30,239, [3139]
60,201,60,201,30,213,60,239,30,239,
60,268,30,239,60
1110 ***** [1416]
****
1120          REPONSES JU [1061]
STES
1130 RESTORE 1090:FOR son=1 TO 32:R [12571]
EAD a,b:SOUND 1,a,b,10:SOUND 1,1,1,
1,1:NEXT:LOCATE QW,8:PRINT G4$:PEN
2:LOCATE 20,15:PRINT"Heures & Minut
es":LOCATE 25,16:PRINT"BONNES":P=P+
2:GOSUB 1300:GOTO 1260

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1140 '***** [1416] OMME
**** 1320 FOR Q=QW+1 TO 39: PEN 1: LOCATE [3468]
1150 ' HEURES JU [569] Q,8: SOUND 1,900,2,10,1,1,31
STES 1330 IF Q=38 OR Q=36 OR Q=34 OR Q=3 [7490]
1160 RESTORE 1090: FOR son=1 TO 8: RE [12705] 2 OR Q=30 OR Q=28 OR Q=26 OR Q=24 O
AD a,b: SOUND 1,a,b,10: SOUND 1,1,1,1 R Q=22 OR Q=20 THEN PRINT " "; G2$ EL
,1: NEXT: GOSUB 1350: LOCATE QW,9: PRIN SE PRINT " "; G3$: IF Q=39 THEN LOCATE
T" ": LOCATE 20,15: PRINT "Heures BONN Q+1,8: PRINT G4$
ES": LOCATE 20,16: PRINT "Mais Minutes 1340 LOCATE Q,9: PRINT " ": FOR W=1 TO [3144]
FAUSSES": P=P+1: GOSUB 1300: GOTO 123 200: NEXT W,Q: RETURN
0 1350 '***** [1416]
1170 '***** [1416] ****
**** 1360 ' LA CLOCHE T [995]
1180 ' MINUTES JU [2195] OMBE
STES 1370 FOR J=3 TO 8: PEN 2: LOCATE QW,J [11259]
1190 RESTORE 1090: FOR son=1 TO 8: RE [12531] : SOUND 1,J+100,1,15: PRINT CHR$(149)
AD a,b: SOUND 1,a,b,10: SOUND 1,1,1,1 : LOCATE QW,J-1: PRINT " ": IF (A(HE)=H
,1: NEXT: GOSUB 1350: LOCATE QW,9: PRIN S(H) OR B(ME)=MS(M)) AND J=7 THEN L
T" ": LOCATE 20,15: PRINT "Minutes BON OCATE QW+1,8: PRINT G$
NES": LOCATE 20,16: PRINT "Mais Heures 1380 NEXT J: RETURN [844]
FAUSSES": P=P+1: GOSUB 1300: GOTO 123 1390 '***** [1416]
0 ****
1200 '***** [1416] 1400 ' MUSIQUE DE DEBUT & [1781]
**** FIN
1210 ' REPONSES FAU [915] 1410 U=INT(RND*7)+5: SOUND 1,SON(U), [5083]
SSES 160,6,0,1: FOR J=1 TO 5: IF INKEY(18)
1220 GOSUB 1350: LOCATE 20,15: PRINT " [10787] =0 THEN RETURN
Heures & Minutes": LOCATE 25,16: PRIN 1420 U=INT(RND*16)+1: SOUND 2,SON(U) [4108]
T"FAUSSES": RESTORE 1100: FOR D=1 TO ,16,5,1: IF INKEY(18)=0 THEN RETURN
11: READ a,b: SOUND 1,a,b,10: SOUND 1, 1430 U=INT(RND*11)+1: SOUND 4,SON(U) [2862]
1,1,1,1: NEXT ,32,6,1: NEXT J: RETURN
1230 '***** [1416] 1440 '***** [1416]
**** ****
1240 ' FIN DE PA [1237] 1450 ' SONNERIE DU RE [1402]
RTIE VEIL
1250 HE=H: ME=M: PEN 2: INK 2,26,13: LO [7045] 1460 FOR S=1 TO 50: IF S<20 THEN SPE [8412]
CATE 1,16: PRINT " REPONSE ": GO ED INK 5,5: INK 3,26,2: BORDER 24: SOU
SUB 700: GOSUB 740: GOSUB 900 ND 1,45,5,8,1: SOUND 1,1,1,1,1: OUT 2
1260 PEN 1: LOCATE 19,11: PRINT p; "c1 [8258] 55,8: OUT 256,1 ELSE OUT 256,2: SPEED
oches sur": T: FOR D=20 TO 20+(P-1)*2 INK 15,15: INK 3,6: BORDER 2
STEP 2: PEN 2: LOCATE D,13: PRINT CHR 1470 NEXT S: RETURN [577]
$(149): NEXT: LOCATE 19,15: PRINT CHR$ 1480 '***** [1416]
(18): LOCATE 19,16: PRINT CHR$(18) ****
1270 IF T=10 THEN INK 2,26: GOTO 129 [1842] 1490 ' DESSINS DES CLO [830]
0 CHES
1280 PEN 3: LOCATE 1,18: PRINT " Appuy [8705] 1500 PEN 3: PAPER 0: FOR G=QW TO 32 S [7647]
ez sur ENTER": IF INKEY(18)=0 THEN I TEP 3: LOCATE G,3: PRINT CHR$(149): LO
NK 2,26: CLS: GOTO 430 ELSE GOSUB 139 CATE G-1,8: PRINT CHR$(150): NEXT G: M
0: GOTO 1280 OVE 180,55: DRAW 550,55,1: RETURN
1290 GOSUB 1390: PEN 2: LOCATE 2,18: P [9714] 1510 '***** [1416]
RINT "UNE AUTRE (O/N)?: IF INKEY(34) ****
=0 THEN T=0: P=0: CLS: GOTO 410 ELSE I 1520 ' ERR [885]
F INKEY(46)=0 THEN RUN "MENU" ELSE G EURS
OTO 1290 1530 LOCATE 1,24: PRINT "Erreur No": E [5523]
1300 '***** [1416] RR" Ligne No": ERL: IF ERR>30 THEN PR
**** INT "Valeur DERR No": DERR
1310 ' RETOUR DU BONH [808] 1540 CALL &BB16: STOP [1306]

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