

The Kid Computer

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1 Welcome

This is a computer for doing a few things carefully.

You can make pictures. You can move a turtle. You can type small programs.

When you are done with something, you can always come back.

2 The Menu

When the computer turns on, you see the menu.

The menu lets you choose what to do.

Use the arrow keys to pick what you want. Press Enter to start it.

To leave and go back to the menu, hold down Ctrl and Alt, then press Backspace.

3 The Turtle (Logo): Telling the Computer to Draw

Instead of drawing yourself, you can tell the computer what to draw, so that it happens exactly like you want.

The turtle listens to words.

Try typing:

```
FD 50  
RT 90  
LT 90
```

You can tell the turtle to move. You can tell it to turn.

3.1 Square

```
FD 100  
RT 90  
FD 100  
RT 90  
FD 100  
RT 90  
FD 100  
RT 90
```

That is a lot of typing. You can also say:

```
REPEAT 4 [FD 100 RT 90]
```

Try changing:

- 100 to make it bigger or smaller
- 90 to see what happens

3.2 Triangle

```
REPEAT 3 [FD 100 RT 120]
```

3.3 Spiral

```
REPEAT 36 [FD 10 RT 10]
```

Try:

- changing the numbers
- making it repeat more times

3.4 Star

```
REPEAT 5 [FD 100 RT 144]
```

3.5 Flower

```
REPEAT 8 [REPEAT 4 [FD 50 RT 90] RT 45]
```

3.6 Useful Commands

- CS — clear the screen
- HOME — send the turtle back to the middle
- PU — pen up (move without drawing)
- PD — pen down (draw again)

4 BASIC: Telling the Computer What to Do

You can do Daddy's job! This computer can run small programs.

Programs are made from lines with numbers.

You type the lines. Then you type:

`RUN`

4.1 Useful Commands

- `RUN` — makes the program go
- `LIST` — shows what you typed
- `NEW` — erase and start over
- `CLS` — clear the screen

If the screen fills up or will not stop, press **Ctrl + C**.

4.2 Growing Stars

This makes stars grow down the screen.

```
10 CLS
20 FOR I = 1 TO 20
30 PRINT STRING$(I, "*")
40 NEXT I
50 END
```

Try changing:

- 20 to a bigger number
- "*" to another letter

4.3 Letter Rain

Letters fall forever!

```
10 CLS
20 PRINT CHR$(65 + RND * 26);
30 GOTO 20
```

To stop it, press **Ctrl + C**.

4.4 Bouncing Word

The word moves back and forth.

```
10 CLS
20 FOR X = 1 TO 20
30 PRINT SPC(X) + "HI!"
40 NEXT X
50 FOR X = 20 TO 1 STEP -1
60 PRINT SPC(X) + "HI!"
70 NEXT X
80 GOTO 10
```

Try changing:

- "HI!" to your name
- the numbers to make it move more

4.5 Number Explosion

Numbers fill the screen.

```
10 CLS
20 FOR I = 1 TO 10
30 PRINT I; I; I; I; I
40 NEXT I
50 END
```

Try:

- printing more numbers
- changing I to I * I

4.6 Checkerboard

This makes a pattern.

```
10 CLS
20 FOR R = 1 TO 10
30 PRINT "* * * * * "
40 PRINT " * * * * *"
50 NEXT R
60 END
```

Try:

- changing the symbols
- adding more rows

4.7 Name Shout

The computer asks your name!

4 BASIC: Telling the Computer What to Do

```
10 CLS
20 INPUT "WHAT IS YOUR NAME"; N$
30 FOR I = 1 TO 10
40 PRINT N$
50 NEXT I
60 END
```

Try:

- changing how many times it prints
- printing something else