

Table of Contents

Introduction	4
What Is a Computer?	
• A Computer Is a Machine	6
• A Computer Is a Tool	7
• What Can a Computer Do?	8
• Proper Care of Your Computer	9
• Artificial Intelligence	10
History of Computers	
• Early Counting Tools	12
• Abacus	13
• Early Pioneers of Computers	14
• The Development of Computers	16
• Five Generations of Computers	17
Hardware	
• Parts of a Computer	20
• The Keyboard and Its Keys	21
• The Keyboard	23
• The Monitor	24
• The Printer	25
• Disk Drives	26
• The Mouse	27
• Scanners	28
• Modems	29
Inside a Computer	
• Chips	31
• Circuit Boards	32
• Motherboard and Daughterboards	33
• Central Processing Unit (CPU)	34
• RAM and ROM	35
• Bits and Bytes	36
Disks	
• Floppy Diskettes	38
• CD-ROM Discs	39
• Proper Disk Care	40
Software	
• What Is Software?	42
• Disk Operating System (DOS)	43

Table of Contents *(cont.)*

Software *(cont.)*

- Windows 44
- Application Software 45
- Utility and Simulation Software 46
- Educational and Entertainment Software 47
- Read the Software Box 48

Word Processing

- What Is Word Processing? 50
- Highlighting Text 51
- Scrolling Text and Wrap-Around Text 52
- Setting Up Your Text 53
- A Sample Letter 54
- Editing Text—Insert, Delete, Move, and Copy 55
- Spell Check, Thesaurus, and Word Count 56
- Fonts 57
- Saving Your Document to a Disk and Printing 58
- Menus and Icons 59

Desktop Publishing

- What Is Desktop Publishing? 61
- More About Graphics 62
- Drawing Tools 63

Databases and Spreadsheets

- What Is a Database? 65
- Creating a Database 66
- What Is a Spreadsheet? 67
- A Sample Spreadsheet 68

Computers at Work

- Input—Processing—Output 70
- Input Devices 71
- Output Devices 72
- Multimedia and Telecommunications 73
- How Computers Are Used Today 74
- Computer Related Occupations 75
- What to Look for When Purchasing a Computer 76

Computer Star Award 77

Computer Glossary 78

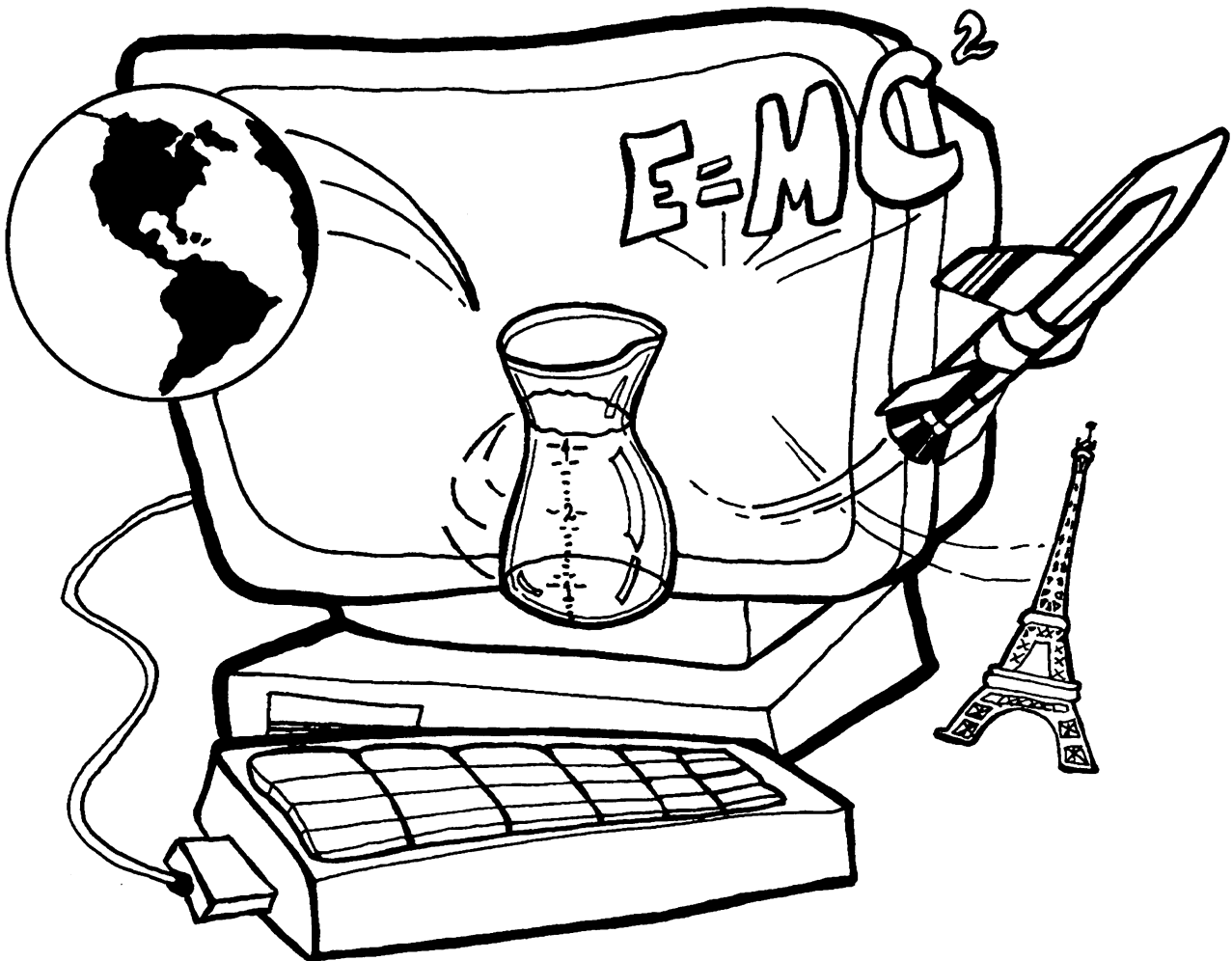
Bibliography 80

Introduction

Computers Don't Byte, for middle school students, has been written to provide a medium for teachers and students to help them understand the operational aspects of computers and thereby use them as invaluable tools with wide and diverse areas of application. *Computers Don't Byte* will also serve as an instructional guide in fostering computer literacy and proficiency, with the ultimate hope of reducing fears and/or anxieties towards effective use of computers. This will be accomplished by making students aware of the powerful capabilities computers have to offer as workable tools and by improving the quality of learning and instruction.

Computer technology will be part of our children's futures, and we as educators must provide opportunities that meet their present and future needs. This student activity book is related to cognitive computer basics and understanding. It will benefit students by adequately providing them with a basic understanding of how computers influence their lives and society as a whole.

Computers Don't Byte will not only provide a better understanding of computers for our students but also a much needed resource for teachers.

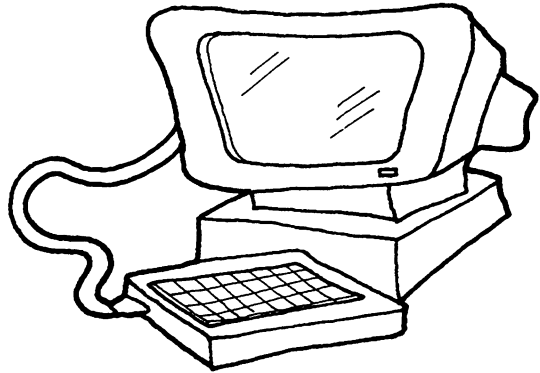


A Computer Is a Machine

A computer is an electronic machine. It can help you with your work. It can help you write and solve problems, count, and even draw. A computer works very quickly and accurately and never gets tired or makes mistakes.

You may think that a computer is very smart, even smarter than most people, but it is not intelligent at all. It cannot think for itself, make decisions, or do anything on its own. In order for it to run, it must receive instructions from someone like you, who tells it what to do.

Computers come in a variety of sizes. Microcomputers are the kind of computers we use at home and in school.



Activity: Read the following statements about computers. Then circle True or False for each statement, as you think about the similarities and differences between yourself and a computer.

- | | | |
|------|-------|--|
| True | False | 1. Computers are very smart machines. |
| True | False | 2. A computer knows how to think. |
| True | False | 3. A computer can display sadness and happiness. |
| True | False | 4. You can add one hundred three-digit numbers faster than a computer can. |
| True | False | 5. Computers tire quickly and need to rest often. |
| True | False | 6. A computer can laugh at a joke. |
| True | False | 7. Some computers can talk and make music if they have the right programs. |
| True | False | 8. Computers eat three meals a day. |
| True | False | 9. Your computer likes you. |
| True | False | 10. A computer is made up of many parts, just as your own body is. |

Extension: Have your students ask their parents about some of the machines they use at work. Share the answers and discuss them further in class.

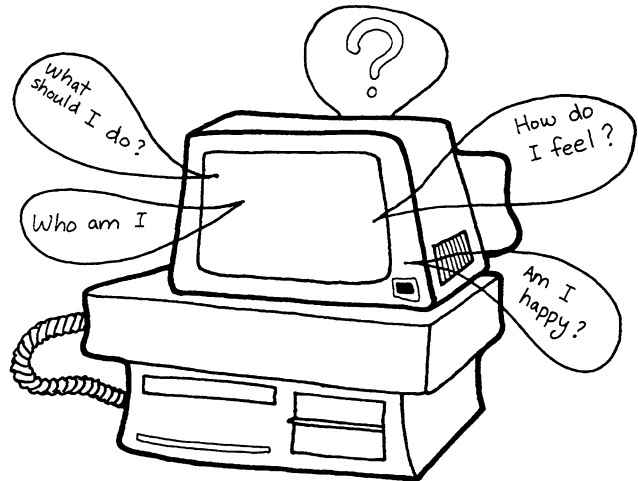
What Can a Computer Do?

We have already learned that a computer is a machine and that it cannot think for itself. There are many times that a computer may appear to be very intelligent, but remember, a computer is only a machine and a tool. It must be told what to do.

Always remember that you are much smarter than a computer.

A computer:

- cannot think for itself
- does not have any feelings
- cannot show any emotion
- does not have the ability to form opinions
- cannot make decisions



However, these are some things that a computer can do:

- remember thousands of pieces of information
- retrieve stored information rapidly and accurately
- perform mathematical operations quickly and without error
- alphabetise large numbers of words in less than one second
- work tirelessly
- work fast

Activity: Think about all the things that a computer can do more efficiently than you can. If you could choose one of the positive qualities about computers mentioned above to have as your own, which one would you choose? Why? Write about your choice on the lines below.

Extension: Compare yourself and a computer, making a list of the similarities and differences.