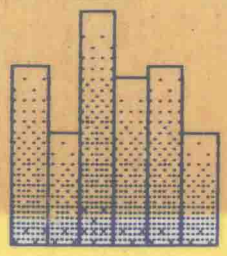

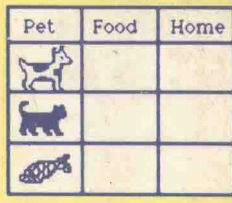

TOOLS FOR SCHOOLS

APPLICATIONS SOFTWARE FOR THE CLASSROOM

SANDRA TURNER
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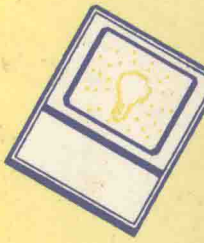

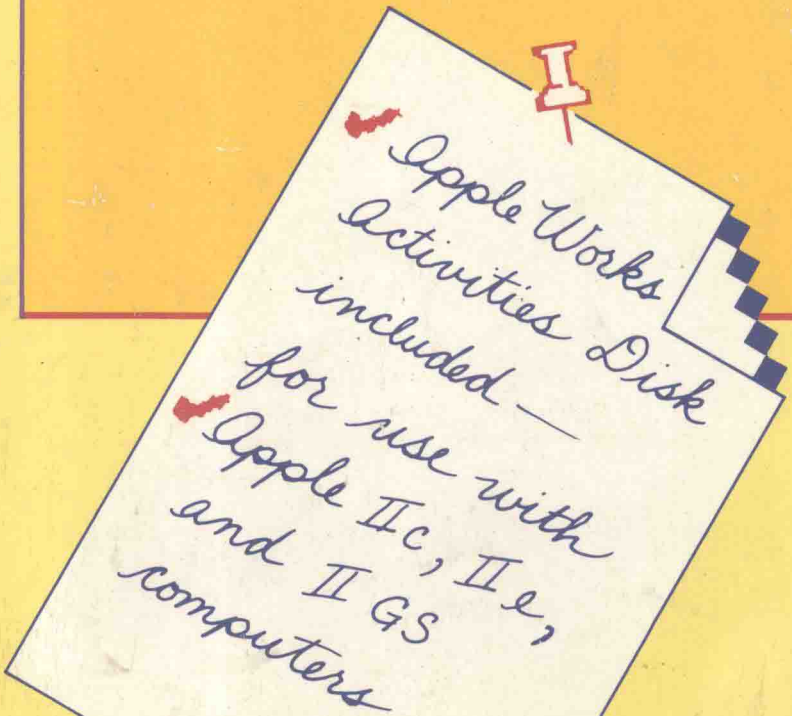

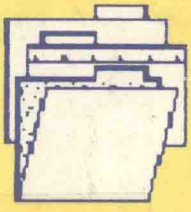

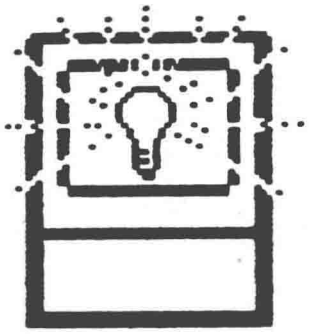

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Sandra Turner **Michael Land**

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To
Mary
and
Jack

PREFACE

The goal of this book is to help educators use applications software to teach topics in the K–12 curriculum. In a growing number of elementary and secondary classrooms, students are writing with a word processor, using databases in social studies and science, publishing a student newspaper with desktop-publishing software, using telecommunications to find references for their research papers, using spreadsheets to analyze data in mathematics and social studies, and then displaying the results with graphics software. Since teachers who are confident personal users of the computer are more likely to use it with their own students, this book also shows teachers how they can use applications software to write reports to parents, store information about students, record and average grades, and manage budgets for school activities.

During the past two years the emphasis in computer education has shifted from programming to the use of applications software. Not all teachers and students have opportunities to apply their programming skills to solve their own real-world problems. Applications software, however, is easier to learn than programming, and almost everyone who learns to use it sees an immediate application in his or her own work. Thus, the computer becomes a practical tool that teachers and students can use in all areas of education.

About The Book

We wrote this book as a text for a one-semester course in computer applications for teachers and prospective teachers. The book provides specific ways to use word processors, databases, spreadsheets, graphics software, and telecommunications to teach subject area objectives in the K–12 curriculum. The book is also appropriate as a supplemental text for an introductory course in computer education for preservice and inservice teachers. Most colleges of education across the country are offering such a course now, and in many of these institutions the course is a required part of the undergraduate teacher education curriculum. The topics covered in introductory courses vary widely among institutions, but they usually include software evaluation, an introduction to programming in Logo or BASIC, and the use of applications software. *Tools for Schools* would be a relevant and useful supplemental text for the applications component of such a course.

This book is written at a beginning level for teachers who have had little or no prior experience with computers or with applications software. However, even those teachers who have had some experience with applications software will benefit from the sample activities and teaching ideas in each chapter. The approach is practical and applied rather than theoretical. Because we believe that people learn by doing, a hands-on approach is used to introduce each type of applications software. This gives the teachers using this book experience that they can use to prepare lessons and activities appropriate for the subject area and grade level that they teach.

Chapters 1 through 5 cover the five main application areas: word processing (including desktop publishing), databases, spreadsheets, graphics, and telecommunications. To provide hands-on experience with word processing, databases, and spreadsheets, we have chosen to use *AppleWorks,* a popular integrated software package widely used among both teachers and students.

AppleWorks is really three software programs in one package: a word processor, a database management program, and a spreadsheet program. These three programs are integrated, which means that they can access common files so that information can be transferred from one to another quickly and easily. In addition, the three programs use similar commands for similar functions, simplifying the task of learning all three. Although *AppleWorks* is relatively easy to learn, it has a number of sophisticated features. It has been used successfully by people at all levels of competence, from students as young as third grade to the authors who used it to write this book!

Although the hands-on experience in the first three chapters uses *AppleWorks,* we also discuss and compare the features of other word-processing, database, and spreadsheet software popular in schools. The teaching ideas that are the core of each chapter can be implemented in the K–12 classroom with almost any applications software.

Chapter 4 covers the use of graphics software in the classroom. For hands-on experience in this chapter, you should have available at least one graphics program for drawing (*Paintworks Plus, Dazzle Draw, Animation Station,* and *Koala Painter* are recommended), one for plotting data (*Visualizer* and *TimeOut Graph,* which are compatible with *AppleWorks,* and *MECC Graph* are recommended), plus a printing utility such as *Print Shop.*

Using telecommunications in the classroom is the focus of Chapter 5. You will need a modem connected to a phone line, communications software, and access to a commercial information service such as CompuServe, a bibliographic database service such as Einstein, or a local bulletin board service.

The final chapter focuses on curriculum issues and teaching strategies related to integrating the computer into the school curriculum. We have included examples of lesson plans in which applications software is used to teach different subject area objectives at a variety of grade levels.

The Activities Disk

Tools for Schools includes an Activities Disk with forty-five sample *AppleWorks* files and templates. As you sit at the computer reading the book and trying the activities, you will often need to load files from the Activities Disk. A special disk icon will appear in the margin to indicate that you need to load a file from the Activities Disk. Word-processing files are on side 1, and database and spreadsheet files are on side 2. Refer to Appendix A to see the names of all the files on the Activities Disk. The files on the Activities Disk are locked, so you need not be concerned about erasing them or saving something else over them. Since the Activities Disk is nearly full, you will need your own disk for saving files that you create. (In Chapter 1, you will learn how to format a blank disk for saving your own data files.)

Special Features Of The Book

In addition to the Activities Disk, several other special features have been incorporated into the book:

- ✔ numerous examples and teaching ideas that are appropriate for teachers at both the elementary and the secondary levels
- ✔ question-and-answer sections about *AppleWorks* and graphics software
- ✔ screen displays to help you verify that you are proceeding as expected
- ✔ important terms highlighted in boldface in the text and defined in the glossary in nontechnical terminology
- ✔ an up-to-date bibliography at the end of each chapter listing articles and books for further reading
- ✔ end-of-chapter exercises that give you an opportunity to check and extend your understanding
- ✔ a reference card at the back of the book summarizing *AppleWorks* commands
- ✔ a separate *Instructor's Guide*

Using *AppleWorks* With The Book

You will definitely need to have *AppleWorks* and a 128K Apple IIGS, IIe, or IIc computer to use this book successfully. The *AppleWorks* software package is published by Claris and may be purchased from any Apple computer dealer. There are several versions of *AppleWorks*. We have used *AppleWorks* 2.0 on an Apple IIe with two disk drives to prepare the screen displays (although we used an Apple IIGS to prepare the manuscript). If you have a different version of *AppleWorks* or a different computer configuration, your screen may vary slightly from the screen displays in the book. Specifically, the disk-drive number, the printer menu, and the amount of memory available may be different, but these differences are minor, and you will quickly adapt. (For information about using *AppleWorks* with one disk drive or with the Apple IIGS, see Appendix B.)

Acknowledgments

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CONTENTS

CHAPTER 1

WORD PROCESSING AND WRITING

PAGE 7

CHAPTER 2

DEVELOPING INQUIRY SKILLS WITH DATABASES

PAGE 65

CHAPTER 3

PROBLEM SOLVING WITH SPREADSHEETS

PAGE 121

CHAPTER 4

COMPUTER-GENERATED GRAPHICS IN THE CLASSROOM

PAGE 165

CHAPTER 5

TELECOMMUNICATIONS

PAGE 191

CHAPTER 6

INTEGRATING THE COMPUTER INTO THE CURRICULUM

PAGE 229

APPENDIXES

PAGE 259