What's New in This Edition?

The field of education continues to evolve, and this is especially true in the application of technology to curriculum and instruction. This edition features a section that summarizes the amazing advances in digital imagery that are now available to classroom teachers and care providers, along with three new chapters of sample lessons. One of the new chapters highlights the movement in early childhood education toward ongoing assessment, the adoption and use of standards, and systematic documentation. Since children are now exposed to technology from birth, another new chapter highlights some developmentally appropriate uses of photographs and scanned images with toddlers. Finally, with the current emphasis on including children with special needs with their peers, the third new chapter features a sampling of digital curricular activities to use with children with special needs.

The activity ideas presented in this edition are designed to provide teachers and care providers with a sample of possible uses of digital technology as an instructional tool for young children. It is hoped that early childhood professionals will use these samples to launch their own experimentation with creative uses of technology to enhance curriculum and instruction.

Ages and Stages

There were questions after the first edition about which activities were appropriate for various age groups. All of the activities in Chapters 1–8 were done successfully with preschool children in a four-year-old grouping. Most have also been presented with positive results with three-year-olds and early elementary students. The new toddler chapter, Chapter 11, adds examples of activities that utilize digital images appropriate for children fifteen months to three years of age. Some older children have also enjoyed these activities as a review. The ideas in Chapter 12 on children with special needs can be used with a wide age range, depending on the function level of each individual child.

Materials and Equipment

The materials needed to create the activities in this book are those now commonly found in early childhood education settings. In addition to the

usual craft materials (scissors, glue, tape, marking pens, rulers, construction paper, poster board, etc.), only a basic computer setup is needed to make the curricular materials featured here. A computer, digital camera, printer, and the appropriate connective cords are all that are needed. Since digital images take up a significant amount of memory, it is useful to have additional hard-drive space available. Fortunately, the cost of even large amounts of memory for a backup is quite reasonable. A scanner is a nice device to add because it allows the teacher to save digital images of children's work and still let them take home their creations that day.

Technology (Chapter 1)

The section on technology describes some of the digital and communication advances most often used in the classroom. The techniques that are used in the activities in this book require only basic computer skills. A few of the newer technological advances described in the technology chapter require more investigation, but with a little time and practice they are all easily achievable by early childhood practitioners. Because advances in technology occur so rapidly, it is important for teachers to continue to explore and experiment with new equipment and software as it becomes available.

Note: While Chapters 3–12 are designed as guides for teachers to use digital technology with particular parts of the curriculum or particular student populations, Chapters 1 and 2 are to inform teachers on the wide array of tools they have now at their disposal. For this reason, Chapter 1 does not list specific activities but instead provides a more preliminary understanding for teachers.

Standards, Assessment, and Documentation (Chapter 2)

Assessment is at the heart of good teaching. The ability to observe students carefully as they are engaged in the process of acquiring new skills provides the critical information needed to adjust instruction in ways that will facilitate learning. The information gleaned from observation allows the teacher to gear materials and lessons so the children are able to consistently work in their individual *zones of proximal development* during direct instruction, while working in their independent learning ranges during center time and free play. Skilled observation and informal assessment are critical to the *assess-assist cycle* that helps children master new skills.

This chapter describes several types of educational standards and explores ways to use standards to organize systematic assessment, inform instruction, and document children's progress in an authentic and meaningful way. Like Chapter 1, this chapter is for teachers' own professional development, so while various skills are specified, there are no extension activities for the classroom or use at home as suggestions for parents to work on with their children.

Toddlers and Technology (Chapter 11)

Modern babies are exposed to technology from birth. It is not unusual to see infants mesmerized by mechanical toys and toddlers who know how to punch the keys on a television remote control before they can turn a doorknob. This edition features a chapter on activities designed specifically for toddlers and young three-year-olds. The activities focus on important skills and concepts to be acquired at this stage of development. When children see the photograph being taken and then printed, for example, they are able to make the important connection between the concrete three-dimensional world and the symbolic world of the two-dimensional image. A display and discussion of photographs of children exhibiting the emotions typical of toddlers (happy, sad, mad, fearful) is an effective way to introduce words for emotions and to talk about feelings. This chapter features language development activities and foundation skills for early literacy and mathematical thinking that can be fostered through digital images.

Children With Special Needs (Chapter 12)

The use of photographs with familiar objects, activities, and people is a particularly useful way to engage children with special needs. These images give the teacher a way to talk about things the child knows and to freeze events at a point in time in our otherwise a fast-paced world. Once captured, the digital images can help the child understand what occurred and to develop the communication and social skills needed to use the information effectively. Photographs also provide important visual cues on what will occur next and where objects belong. The pictures serve as a wonderful tool to develop vocabulary, promote basic mathematical concepts, and to focus on acceptable classroom behaviors. The activities in this chapter were selected for their usefulness in facilitating a successful classroom experience for young children with disabilities.

Communication with family members is always important, but it is crucial for children who have limited verbal skills, health issues, and other special needs. A communication log that shares photographs and information about events at home and school and that goes back and forth daily is a useful and often a much-appreciated method for interacting with parents.