

image, the story ends with a classic: "If you change the order of the addends, does it change the sum? See page 32 for the answer." Young readers are being taught that the answers are in the back of the book, a misrepresentation of real mathematical thinking. The story line is completely lost in the forced inclusion of math facts. It is very clear to the reader that this book is not to be enjoyed. Rather, the book requires work, work that is disguised with cute pictures.

*The M&M's Brand Chocolate Candies Counting Book* capitalizes on the popularity of M&Ms as it leads the reader through activities of sorting by color, making sets, creating shapes, and subtracting. The unremarkable text uses a contrived rhyming scheme that insults even the youngest of children:

Shape the twelve candies, please,  
into a square.

A square has four sides. Please  
count them with care.

Change the square to a circle, the  
big round kind.

A circle's beginning is so hard to find.

Let's make a triangle before we stop.

Give it three sides and a point on the  
top. (pp. 21–23)

The illustrations are reminiscent of a workbook. The use of candy underscores the belief of many teachers that math is palatable only if disguised. There is no encouragement to explore ideas; the reader is told exactly what to do. At this very early stage, children get the message that there is one right way to complete a task. Furthermore, misconceptions are perpetuated when triangles are required to have "a point on the top" (the faulty belief that triangles must be equilateral and oriented with a point on the top persists throughout the primary grades).

In *Just Enough Carrots*, one of many instructional storybooks in the MathStart series by Stuart Murphy (1997), a bunny whines about the amount of carrots his

mother has placed in her shopping cart. In a didactic manner, the mother bunny points out, "Yes, Horse has more carrots, but Bird has the same amount, and Elephant has even fewer." This unappealing text is then interrupted by a chart showing more, the same, and fewer carrots. This pattern of instructional text followed by workbook-like displays is repeated as the bunnies compare additional food items with the purchases of other shoppers. *Just Enough Carrots* is overly simplistic and contrived. Conversation is unnatural and forced. Illustrations are overly simplistic, forcing the viewer to focus primarily on mathematical concepts rather than on the story itself. In no way does the book convey the possible joy of shopping with a parent and the potential of rich, natural learning experiences for a child in the grocery store. One reading of this book and children have had enough.

Teachers must wisely choose the books read in class. Not all books are equally worthy. The wise teacher avoids books that are nothing more than workbooks in disguise, books used primarily to instruct. Such books use contrived situations that fail to spark young children's interest. The mathematics content is stilted and unnatural, lacking playfulness and a sense of wonder. Teachers must ask themselves why they would waste valuable classroom time with such books, time that could be used for reading excellent children's stories and participating in meaningful learning engagements.

### Conclusion

Thoughtful inclusion of high-quality children's books in the math curriculum significantly enhances children's interest and leads to meaningful investigations. Selecting books that are well written and illustrated and designing activities that are not contrived but

naturally flow from the text are crucial. Inspired by good literature, children and teachers alike can experience the joy of mathematical thinking and exploring.

### References

- Austin, P. 1998. Math books as literature: Which ones measure up? *The New Advocate* 11 (2): 119–33.
- Bredenkamp, S., & C. Copple, eds. 1997. *Developmentally appropriate practice in early childhood programs*. Rev. ed. Washington, DC: NAEYC.
- Brown, S., & M. Walter. 1990. *The art of problem posing*. Hillsdale, NJ: Erlbaum.
- Edwards, C., L. Gandini, & G. Forman, eds. 1993. *The hundred languages of children: The Reggio Emilia approach to early childhood education*. Norwood, NJ: Ablex.
- Helm, J., & L. Katz. 2001. *Young investigators: The project approach in the early years*. New York: Teachers College Press. Available from NAEYC.
- Hoff, S. 1959. *Sammy the seal*. New York: Harpercrest.
- Hulme, J. 1991. *Sea squares*. New York: Hyperion.
- Katz, L., & S. Chard. 2000. *Engaging children's minds: The project approach*. 2d ed. Stamford, CT: Ablex.
- Knowles, S. 1988. *Edward the emu*. Sydney, Australia: HarperCollins.
- Leedy, L. 1997. *Mission addition*. New York: Holiday House.
- McGrath, B. 1994. *The M&M's brand chocolate candies counting book*. Watertown, MA: Charlesbridge.
- Murphy, S. 1997. *Just enough carrots*. New York: HarperCollins.
- National Council of Teachers of Mathematics (NCTM). 2000. *Principles and standards for school mathematics*. Reston, VA: Author.
- Nodelman, P. 1996. *The pleasures of children's literature*. White Plains, NY: Longman.
- Parker, R. 1993. *Mathematical power*. Portsmouth, NH: Heinemann.
- Weaver, S.D. 1999. Using children's literature books and storytelling to initiate the inquiry process in elementary school science. Paper presented at the January meeting of the Association for the Education of Teachers in Science, Austin, Texas.
- Whitin, D., & S. Wilde. 1992. *Read any good math lately?* Portsmouth, NH: Heinemann.