

# Table of Contents

## Chapter 1

It's Not Pink or Blue but Gray That Matters—Cognitive Science and Gender in Your Classroom . . . . .7

## Chapter 2

Designing the Classroom to Meet the Needs of Boys and Girls . . . . .22

## Chapter 3

A Quiz for Teachers, Parents or Caregivers . . . . .33

## Chapter 4

More Than “He Said, She Said” . . . . .38

## Chapter 5

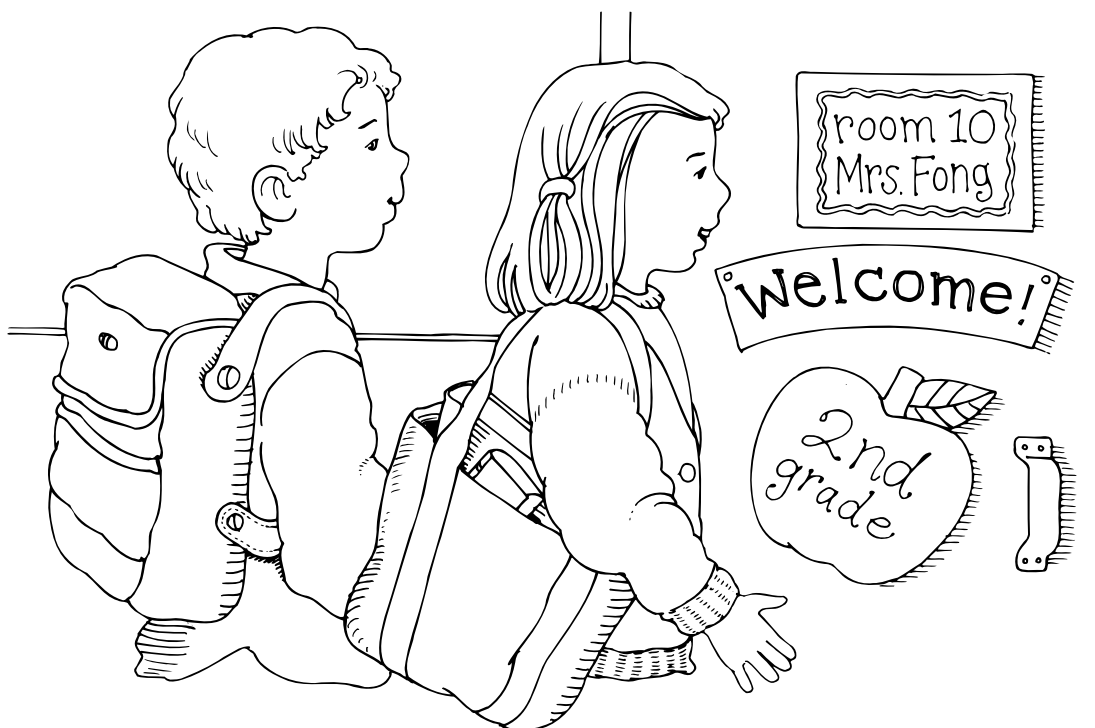
Math Matters for Boys and Girls—More Than Counting and Figuring . . . . .63

## Chapter 6

Science and Geography Open Doors for Boys and Girls . . . . .94

## Appendix

Checklist and Unit Planning Guide for a Gender-Rich Classroom . . . . .139



# Chapter 1

## *It's Not Pink or Blue but Gray*

### *That Matters—*

# Cognitive Science and Gender in Your Classroom

## Preferred Cognitive Strategies

### ***For Girls***

- Responds to the *personal*
- Verbal processing
- Prefers popularity over winning
- Remembers landmarks
- Solves math tasks as a story
- Needs role models to inspire her and show her how to balance work and family

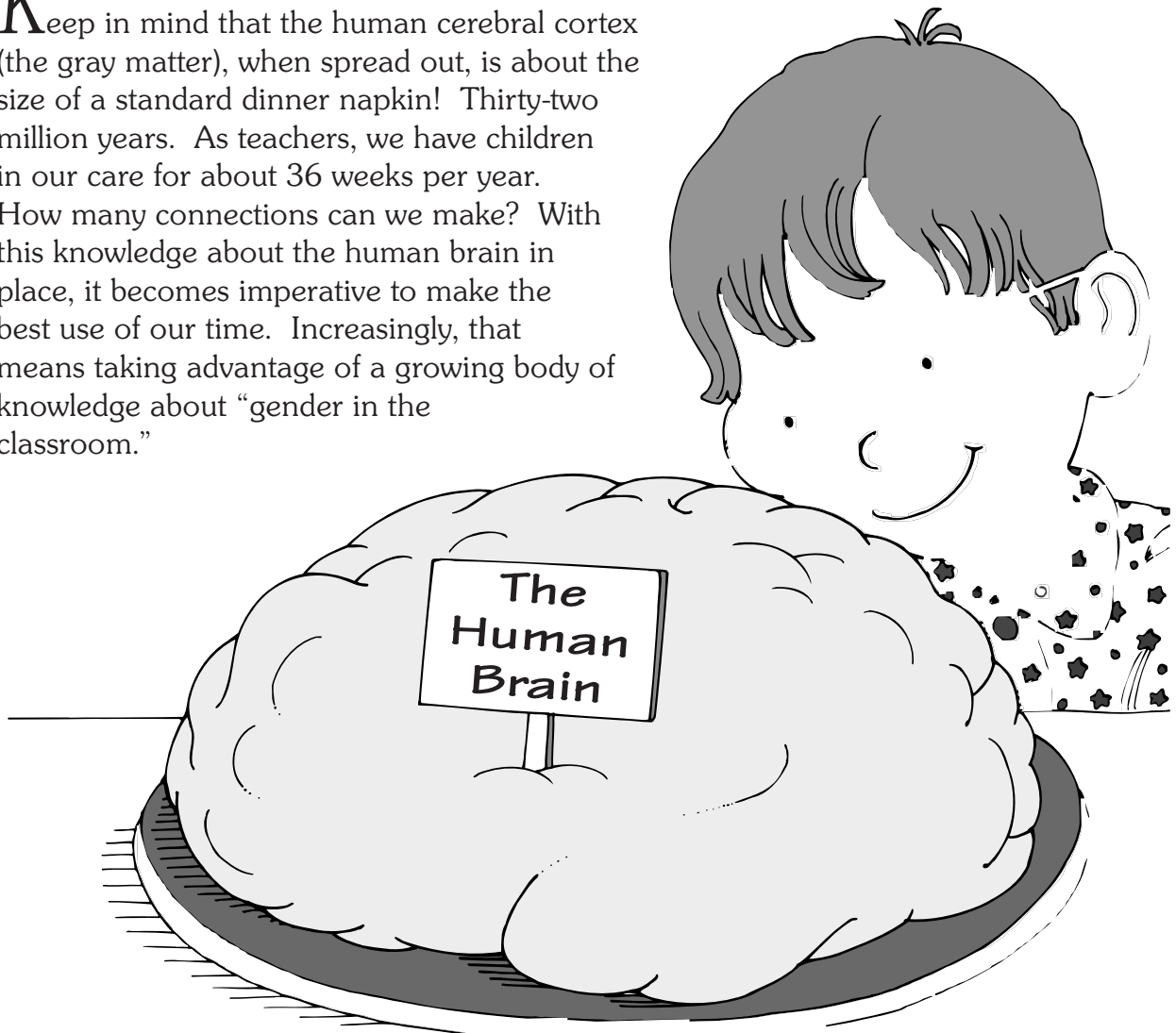
### ***For Boys***

- Responds to *objects*
- Visual processing
- Prefers to “be first”
- Remembers distances and directions
- Solves math tasks as a challenge
- Needs role models to help him socialize appropriately and learn to organize his time and energy

# It's Not Pink or Blue but Gray That Matters

At the beginning of each semester, I have all of my students at the university memorize this quote from Dr. Gerald Edelman's text, *Bright Air, Brilliant Fire: On the Matter of the Mind*: "If one were to count the synapses (connections) in the cerebral cortex at the rate of one per second, you would finish counting some 32 million years after you began."

Keep in mind that the human cerebral cortex (the gray matter), when spread out, is about the size of a standard dinner napkin! Thirty-two million years. As teachers, we have children in our care for about 36 weeks per year. How many connections can we make? With this knowledge about the human brain in place, it becomes imperative to make the best use of our time. Increasingly, that means taking advantage of a growing body of knowledge about "gender in the classroom."



# Does Gender Matter?

The question continues to draw interest. I think the answer, culled from a review of the literature and ongoing discussions among teachers and researchers is . . . IT CAN.

How can gender shape curriculum? There are three ways, and I'll present each one along with supporting research.

## Gender Matters in the Brains of Boys and Girls

With the emergence of MRI and CAT scans, which use sophisticated imaging techniques to “watch the brain at work,” we can observe subtle, yet discernable differences in male and female brains. One must keep in mind, however, that these differences are indeed subtle and do not always occur the same way in every male or female. It is safe to say that we are seeing patterns of brain function and organization. Whether or not these patterns are powerful enough to drive curriculum is clearly in debate. What does make sense, I think, is to use what we know about gender differences in the brain to enhance learning among all children. In most schools, teachers set up the same lessons, centers and manipulatives, with no consideration of cognitive gender differences. As you plan for maximum learning among boys and girls, it can be helpful to consider the body of research emerging as to gender differences related to brain structure, organization and function. The Appendix section in the back of this book can assist you in learning more about this exciting research.

