



A Moving Child Is a Learning Child

How the
Body Teaches
the **Brain**
to **Think**

Gill Connell and
Cheryl McCarthy

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PUBLISHING®

Introducing
the **Kinetic**
Scale™

A Moving Child Is a Learning Child

**Gill Connell and
Cheryl McCarthy**

**How the
Body Teaches
the Brain
to Think**
(Birth to Age 7)

free spirit
PUBLISHING®



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Library of Congress Cataloging-in-Publication Data

Connell, Gill.

A moving child is a learning child : how the body teaches the brain to think
(birth to age 7) / Gill Connell, Cheryl McCarthy.
pages cm.

Summary: "This book explains the learning link between the body and the brain and what early childhood educators and caregivers can do to guide it. The authors discuss children's movement and introduce the Kinetic Scale: a visual map of the active learning needs of infants, toddlers, preschoolers , and primary graders. Includes tips, activities, and PowerPoint presentation"—Provided by publisher.

ISBN 978-1-57542-435-4 (pbk.) —ISBN 1-57542-435-5 1. Movement education.
2. Learning—Physiological aspects. 3. Thought and thinking—Physiological aspects.
I. McCarthy, Cheryl. II. Title.

GV452.C66 2014
372.86—dc23

2013036127

ISBN: 978-1-57542-435-4

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Editors: Meg Bratsch, Christine Zuchora-Walske, and Marjorie Lisovskis

Cover and interior design: Michelle Lee Lagerroos

Illustrations: Heidi Panelli

Free Spirit Publishing

An imprint of Teacher Created Materials

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 The Kinetic Scale
 The Evolution of Communication

The Journey of Can-Do
 The Kinetic Scale: Snugglers
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No Propping, Please
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 When Is a Child Ready for Reading?
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 Respect the Mess
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 M Is for Monkey Bars
 Making Every Word Count
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 My Little Hero—How Kids Learn
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Smart Steps Activities

The 24 Smart Steps activities in Chapter 26, listed in the Contents, are all included in the digital file.

Bonus Smart Steps Activities

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 35. Hook, Line, and Sinkers
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Bonus Family Handouts

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 Apple Is for A
 Skin-to-Skin
 Splinter Skills
 Meet the Midlines
 Music and Movement
 Play, Safety, and the Zone of Uncertainty
 Roughhousing
 Infant Play: Providing Stimulation
 Toddler and Preschooler Play: Providing
 Freedom

PowerPoint Presentation

Foreword

by Darell Hammond, founder and CEO, KaBOOM!

Active play is joyful, fun, and creative. Play is the essence of childhood. And it is also essential to child development.

The benefits of active play are often linked to physical health—which of course, in an era concerned with childhood obesity rates, is critically important. Yet this book tells the lesser-known and surprising story of the myriad ways in which play and movement are vital to our children’s learning.

Gill and Cheryl’s groundbreaking book introduces a developmentally complex (yet easy to implement) tool that supports the full, natural development of movement and learning in young children. The Kinetic Scale shows us what constitutes a “balanced diet” of movement, enabling teachers, parents, and caregivers to facilitate learning through active play while respecting each child’s individual needs.

It’s a story that needs to be heard. At home, at school, and in communities, our children are being denied vital opportunities to move their bodies, exercise their imaginations, and interact with other kids. Children spend an average of eight hours a day in front of a screen. Almost half of all low-income students do not get any recess. Only one in five children lives within walking distance of a park or playground. This directly affects these children’s physical development and, more importantly, their social, emotional, and cognitive development.



As a society, we are failing to give children the balance of active play they need to become healthy and successful adults. This is why I champion the importance of play, because our children's futures depend on it—and it is why Gill and Cheryl are working to share the message of moving to learn in a way that offers us all new insights and practical, engaging ways to support it.

That kids' brains require play should be a no-brainer. In this important book, the authors demonstrate what a grave injustice we're doing to our kids by denying them opportunities to move and play. More than that, through illuminating brain research, they show us why our children need to be on the move, and how we can make this happen for the young children in our care.

It is all of our responsibility to give kids the childhood they deserve by ensuring they get the play they need to learn and grow.

Darell Hammond is the founder and CEO of the nonprofit KaBOOM!, which has built more than 2,300 playgrounds in areas of need throughout the United States.

INTRODUCTION

Let's Get Moving!

Put a table and chairs in a room and bring in some adults. What do they do? They come in and sit down.

Now take the adults out of the room and bring in a group of kids. Same table and chairs. What do they do? One little girl rushes to the window and spins around aimlessly with a great big smile on her face. Under the table, a boy builds a fort. Three little ones decide now's a good time for a race. One girl needs to go to the bathroom. Two toddlers bump into each other and spill to the floor. A little boy can't figure out how to take his coat off. A baby crawls by only stopping to examine the lint on the floor . . . with his mouth. And, one little girl insists on showing you how she growls like a lion. If you have young children in your life, you know these kids. In fact, at one point in your life, you *were* these kids.

Kids move—often in unexpected ways, and often for no apparent reason. But if you know how to “read” the moves, you'll find there's a reason for *every* move they make, and much of it has little to do with the movement itself. You see, movement is the essential and often overlooked starting point for children's learning. Our intent with *A Moving Child Is a Learning Child* is to help you understand how all those wiggles and giggles facilitate learning and what you can do to guide this process.

About This Book

As you already know, in working with young children, theory without practice only gets you so far. But so does practice without theory. Our goal with *A Moving Child Is a Learning Child* is *both*. We call this the “Here's Why, Here's How” approach. So here's how our journey will unfold.



In the first part of the book, **Part 1: Movement Matters**, we explain the importance of movement and introduce you to a new tool we call the Kinetic Scale.

Part 2: A Moving Child endeavors to give you a simple-yet-comprehensive understanding of movement and its relationship to learning.

Part 3: Language: The Bridge to Formal Learning explores the role that all types of language play in helping young children “translate” their physical exploration of the world into higher-level thinking, reasoning, and abstract learning.

In **Part 4: A Learning Child**, we’ll lay out methods and practices for kinetic learning in the classroom, on the playground, at home, or anywhere little ones are moving and learning.

While on the move, children instinctively use different play patterns to explore their world. **Part 5: Put It in Play** walks you through classic play patterns and their role in stimulating a child’s movement and learning.

Finally, **Part 6: Smart Steps** wraps up with 36 thoughtfully selected activities that keep the fun and learning moving.

Many of the diagrams and activities in *A Moving Child Is a Learning Child* are provided as printable PDFs at the Free Spirit Publishing website (see page ix for information about how to access the PDFs).

For ease of reading, we alternate the use of male and female pronouns chapter by chapter when writing about children. Unless a specific note is made, all the information applies to girls and boys alike.

Throughout the book, you will find three recurring elements: “Gill’s Notebook,” “Family Moves,” and “Motorvators.”

Gill’s Notebook

Based on journals Gill has kept in over 30 years of working with early childhood teachers and caregivers, these first-person entries relate personal stories and practical suggestions about guiding movement in early childhood.

Family Moves

Families can get in on the action with these ideas for sharing information and activities that encourage movement at home. Handouts to share with families are included in the digital file at the Free Spirit website. (See page ix.)

Motorvators

Because we don’t want you to wait until the final chapters to get your little ones up and moving, we’ve included “motorvators” throughout the

book—quick, easy, anytime, anywhere ideas for adding high-energy, purposeful activities to your day.

In fact, here's one you can try right now . . .

Motoruator

Snail the Whale

Here's Why

Fidgeting doesn't always mean a child isn't concentrating. In fact, quite often it means he's *trying* to concentrate. First, make sure a squirmy child doesn't need to go to the bathroom, and then try a little balancing activity.

Here's How

Tell the child the tale of poor old "Snail the Whale":

There once was snail named Whale
Who couldn't find the end of his tail.
Three spins to the left . . .
Three spins to the right . . .
Never failed to help Whale find his tail.

Where's Your Tail?

Now make a game of it! Get up and look for your own "tail." Then ask the child if he can find his. Spin slowly three times to the left, then slowly three times to the right. (*Slow* is the key here—about one revolution per eight seconds.)

Once he's found his tail, what's the best way to keep from losing it again? Sit down!

"Finding his tail" may help the child settle down and sit still . . . at least until that tail goes missing again!



So, if you've found *your* tail and you're ready to start, so are we.
Let's get moving!



PART 1

Movement Matters

CHAPTER 1

Introduction to Movement: How the Body Teaches the Brain



All learning begins with the body. It has to. It's our point of reference—our own personal, portable true north, so to speak. And for children, it's even more so because the body is the brain's first teacher. And the lesson plan is movement.

A Moving Child Is a Learning Child

From grasping your finger to grasping her rattle to grasping the mechanics of crawling, standing, walking, jumping, and those hurtling-headlong hugs, every move a young child makes—intentional or accidental—leads to learning. Every move develops her physical capabilities, of course. But at the same time, movement is building sensory perceptions and critical pathways in the brain necessary to reach her full potential.



It's been well reported that within the first years of childhood, approximately 90 percent of the neural pathways in the brain will be set for life.¹ Those pathways determine how a child thinks and learns, but more importantly, they will shape who she becomes . . . her passions and pursuits, triumphs and challenges, inner reflections, outer reactions, and outlook on life . . . all flowing through the neural network built by her earliest physical and sensory experiences.

With breathtaking simplicity, nature has created this move-to-learn process to be both dynamic and self-perpetuating, building the body and brain simultaneously. As such, the more a child moves, the more she stimulates her brain. The more the brain is stimulated, the more movement is required to go get more stimulation. In this way, nature gently coaxes the child to explore beyond her current boundaries toward her own curiosity to acquire new capabilities. (This dynamic process is illustrated in the chart on pages 10–11, “What Real Learning Looks Like.”)

**The body
is the
brain's first
teacher.**



The Brain Has Priorities

We'll talk in more detail about early brain development in Chapter 2. But there are a couple of things we want to draw your attention to here.

Without automated movement a child will not be able to think.

During these early years, the brain sets the priorities on a child's developmental calendar, and movement is one of its top priorities (after survival functions such as breathing, heartbeat, and digestion). Now, that doesn't mean other areas of development aren't happening at the same time, but it does mean movement is where the brain is focusing a good deal of its attention.

Indeed, movement is so important to the brain's master plan, it eventually becomes fully automated, so that the child is able to move without having to think about it.² And this may well be the most critical, yet overlooked, aspect of early childhood development. Stated plainly, without automated movement a child will not be able to think.

Family Moves

Print the "Snail the Whale" Motorvator from the digital file and share it with parents so that little ones can find their tails anywhere they go!

The human brain is only capable of doing one thinking task at a time. One *conscious* task, that is. But the brain *is* capable of layering that one thinking task on top of one or more automated processes. This is the illusion we call "multitasking," and it explains why as an adult you can walk and talk at the same

time. You don't have to think about walking, which leaves your brain free for talking.

By contrast, a young child has her hands full just controlling muscle movements. Only when she has settled into her own body will her mind be free to think about other things like the ABCs and 123s, remembering "please" and "thank you," pondering the stars, and wondering why cats drink out of puddles.

Interfering with Nature

But here's the problem. Compared with past generations, children today are living far more sedentary lives. We'll examine this in more detail in Chapter 3. But the key point is this: We are tampering with thousands of years of