MS. TALBOT ASKS HER CLASS OF 3-YEAR-OLDS to gather on the rug for story time. “Today we are going to hear about Sasha the dog,” she says.

Nate jumps up and down, clapping his hands with glee. He has heard *Sasha the Silly* (Sharmat, 1984) many times and adores it.

Instead of requiring all the children to sit still, Ms. Talbot asks them to stand up and move along with the actions depicted in the book. As she begins reading, some children choose to be Sasha, and some assume the roles of Rolf the Rhino and Dracula Dog. Other children act out one character after another as they hear the words.

Nate, who has borrowed this book from the library several times, enacts the role of Sasha, a dog who wants to be fancy. He cocks his head, moves his feet, and at one point pretends his ears are on the top of his head like Sasha’s. When the story ends, he wraps his arms around his chest and spins around fully satisfied with himself.

*Sasha* is just one of the children’s favorite books. Others are *From Head to Toe* (Carle, 1997), *Pretend You’re a Cat* (Marzollo, 1990), and *Jiggle, Wiggle, Prance* (Noll, 1987). The children also enjoy acting out simple folk tales like *The Big, Enormous Turnip* and *Three Billy Goats Gruff*. Usually Ms. Talbot narrates while the children perform the actions. But sometimes with prompting, children try to speak the words their characters say.

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MOVEMENT IS THE NATURAL WAY IN WHICH young children learn. As you watch children play indoors or outside, you probably won’t see them being still for very long. Healthy children move their bodies spontaneously—running, stretching, spinning, climbing, and jumping for the pure pleasure of motion. They curiously explore the world around them as they dig in the dirt, peek under rocks, and gaze out at their surroundings from a perch in a tree.

According to child psychology pioneer Jean Piaget (1962), children learn primarily by interacting physically with the environment, acting on objects, and observing the results of their actions. Through physical explorations, children seem to “…draw out a deeper understanding of the world in which [they] live” (Griss, 1998).

Exercise and fitness are significant not only for
children’s bodies, but also for their minds, emotions, and social development (Benelli and Yongue, 1995). Children move to survive, to learn, and to find out about their own bodies and the outer world (Landalf and Gerke, 1996).

Movement builds muscles and strengthens the cardiovascular system. It lengthens attention span, supports social interaction, increases imaginative problem solving, and enhances self-confidence. In fact, movement and drama contribute to all areas of development: emotional, physical, social, cognitive, language, and creativity (Brown and Pleydell, 1999). See the “Benefits of moving to literature” chart on page 17.

**Brain research on movement**

Why is movement so important for children? Recent research on the brain may provide the answer. Scientists now know that various systems of the body are joined in a partnership of the brain and body (Caine and Caine, 1997). Whatever affects children’s physiology also affects their emotions and their learning capacity. In a comprehensive review of brain research and its applications to education, Caine and Caine state, “The body is the brain, and the brain is the body.” The findings of brain research build a strong case for including movement experiences throughout the early childhood curriculum.

The section of the brain that processes movement is actually the same part of the brain that is involved in learning (Jensen, 1998). There is an ongoing interplay between movement and cognition, with physical activity enhancing brain function. The cerebellum, the area that processes movement information before it is sent to the cerebral cortex, is also home to more than half the brain’s neurons (Jensen, 1998). This part of the brain controls attention and monitors incoming information as well as helps coordinate movement, maintain balance, and plan and carry out motion. For this reason, learning is usually less problematic for children who have opportunities for active movement.

Certain actions, such as swinging, rolling, jumping, and spinning, stimulate the inner ear and help children develop balance and coordination. Some spinning activities can also increase alertness, attention, and relaxation (Jensen, 1998). In addition, when we engage in aerobic exercise, which provides our bodies and brains with oxygen, our memory improves. Studies of Canadian school children show
that when physical education time is increased, academic scores improve (Hannaford, 1995; Martens, 1982).

Howard Gardner (1993, 1999), in his theory of multiple intelligences, discusses eight different types of intelligence. One of those is bodily/kinesthetic, which refers to special awareness and learning through creative movement, dance, and physical behavior. Children whose primary mode of learning is bodily/kinesthetic benefit most from learning by movement.

However, including physical activities, music, and visual arts in the learning process can enrich the learning of all children. Western society has long separated the body and the mind, usually giving more importance to mental abilities. We now know that children's learning begins with motor development and that movement and thinking go hand-in-hand throughout life (Pica, 1997).

To connect movement and literature, consider two primary approaches: 1) stories and poetry that directly focus on movement of animals, children, or objects, and 2) stories that lend themselves to dramatic enactment and imaginative play.

Poems and stories that highlight movement

JUMP! SPIN! TWIST! GIGGLE! SOME POEMS AND stories make us want to get up out of our seats and move. Whether it is gentle, yoga-like stretches, or more energetic moves like stomping and pounding, children love to be actively engaged with the literature they hear. Physical responses are not only enjoyable; they also help children associate words with feelings and movements. Using their bodies, their senses—seeing and hearing—as well as their emotions helps children increase their comprehension of stories or poems.

Many books written for young children lend themselves to active learning. Early childhood teachers might read a poem or book aloud first, talk about actions depicted in the illustrations, and invite the children to creatively interpret the movements. Clap Your Hands (Cauley, 1992) joyfully and energetically depicts children and animals expressing themselves through action. Children will be eager to try rubbing tummies while patting heads, tickling, wiggling toes, spreading feet to look upside down, and other contagious stunts. Clap Your Hands is also available in big book format, making it easier to use with a group of children.
Jump or Jiggle
Frogs jump
Caterpillars hump

Worms wiggle
Bugs jiggle

Rabbits hop
Horses clop

Snakes slide
Sea gulls glide

Mice creep
Deer leap

Puppies bounce
Kittens pounce

Lions stalk—
But—I walk!

—E. Beyer in Read Aloud Rhymes for the Very Young

Those who work with infants and toddlers will enjoy The Baby’s Game Book (Wilmer, 2000). The book’s rhymes and games combine physical and language play. The author reminds us that complex movements such as ballet dancing and swinging a baseball bat have their roots in early childhood actions of clapping, bouncing, and swinging. Playing baby games—Rub-a-Dub-Dub, Pat-a-Cake, Peek-a-Boo, and toe and finger games—also forms a positive bond between child and caregiver. As babies listen to the poems in this book, they will learn about body parts and the meaning of movement terms in a playful way.

One way children show their enthusiasm and excitement for life is by bouncing. Bouncing Time (Hubbell, 2000) shows a toddler bouncing like different animals during daily activities and a trip to the zoo. This lively, rhythmic, and colorful book will persuade toddlers to bounce about on their own, and may show families that bouncing is a typical and healthy outlet for toddlers and 2-year-olds. Another energetic book is Toddlerobics (Newcome, 1999). As they squat like frogs, snap like crocs, and hop like kangaroos, toddlers can explore the ways their bodies move and practice new skills. The colorful pictures of children from many cultures will delight all ages.

Poetry and rhyming books appeal to children’s growing delight in the sounds of language and to their emotions. To help children understand and respond appropriately to emotions, teachers and parents can read poems such as the following:

How to Be Angry
Scrunch your eyebrows
up to your hair
pull on your chin
and glare glare glare.

Puff out your cheeks,
puff puff puff,
then take a deep breath
and huff huff huff.

—Eve Merriam in Higgle Wiggle Happy Rhymes

Children might begin to learn ways to convey and diffuse their anger by dramatizing the expressions described in the poem above. It shows them a method for sharing negative feelings without hitting, yelling, or throwing tantrums, as some 2- and 3-year-olds are prone to do.

At one Head Start center, the children run up to a reading volunteer each time she enters the class-
room, checking to see if she has brought their favorite book—No David! (Shannon, 1998). David is always getting into mischief by tracking mud onto the carpet, making too much noise, picking his nose, and running outside naked. As the volunteer turns each page, the children make facial expressions and gestures just like the main character and shout, “No, David!” (Most children can relate to hearing “No!”) On the last page children are reassured that David’s mother loves him even when he is naughty.

Other books that foster emotional development include the following: Glad Monster, Sad Monster (Embery and Miranda, 1997), L Is for Loving: An ABC Book About the Way You Feel (Wilson-Max, 1999), When Sophie Gets Angry—Really, Really Angry... (Bang, 1999), and Where the Wild Things Are (Sendak, 1963). Children might act out parts of the story or make facial expressions to demonstrate their understanding of the feelings addressed in each book.

**Books about dance**
The spinning, leaping, and graceful motions of dance are an elemental and fervent part of life (Golden, 1999). Dance is an exhilarating and natural way that most young children express happiness and respond to music. George Ancona’s spirited photographs in Let’s Dance (1998) show the joy of dancers from around the world. The book might cultivate some new movement techniques among energetic young readers.

Pictures and words in poems can also stimulate youngsters to dance. Annie attentively listened to My Father until her grandmother came to the page that said, “And I would learn to dance” (Collins, 1989). She propped the book on the sofa and began to twirl about, imitating the dancers in the illustration by Jane Dyer. The rhythm and words of poems about dance can also stimulate young children to do creative movement, as in the example below.

**Dance**
Dance out of bed,
dance on the floor,
dance down the hallway,
dance out the door.

Dance in the morning,
dance in the night,
dance till the new moon
is out of sight.

Dance all summer,
autumn and spring,
dance through the snowflakes
and don’t forget to sing.

—Eve Merriam in Higgle Wiggle Happy Rhymes

**Movement and imagination**
Dancing, spinning, hopping, and leaping, young children express their creativity through movement. Imaginative experiences deepen learning and help children come to know the world in many different ways (Silk, 1996). Movement and dance are means of expressing emotion, controlling impulses, and processing thoughts. During active play, children develop self-awareness, critical thinking, and physical and mental engagement (Brown and Pleydell, 1999).

Play, by its very nature, has an imaginative, “as if” quality (Johnson, Christie, and Yawkey, 1999). Because young children cannot easily separate thinking from action, movement and dramatic play become their vehicles for learning and self-expression (Brown and Pleydell, 1999). For children, the powers of imagination and emotion are more highly developed than reasoning ability (Bettelheim and Zeman, 1982). Through motion and play, they come
## Benefits of moving to literature

<table>
<thead>
<tr>
<th>Domain of development</th>
<th>Benefits of literature</th>
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<tbody>
<tr>
<td><strong>Physical</strong></td>
<td>When children move in response to stories or enact stories, they practice motor skills, develop control of their bodies, create movements, and apply movement vocabulary.</td>
<td>Toddlerobics (Newcome, 1999) Bouncing Time (Hubbell, 2000) From Head to Toe (Carle, 1997) Clap Your Hands (Cauley, 1992) Wave Goodbye (Reid, 1996)</td>
</tr>
<tr>
<td><strong>Social</strong></td>
<td>When they enact stories, children learn to negotiate parts, play different roles, listen to others, and express their needs and desires.</td>
<td>The Gingerbread Boy Three Billy Goats Gruff Chicken Little The Enormous Turnip Caps for Sale (Slobodkina, 1947)</td>
</tr>
<tr>
<td><strong>Creative</strong></td>
<td>Imaginations grow as children are exposed to wonderful literature. Through art, music, and play children respond in unique ways to the meaning they derive from stories.</td>
<td>Amazing Grace (Hoffman, 1991) Cook-a-doodle-doo! (Stevens and Crummel, 1999) Anansi the Spider (McDermott, 1972) Mr. Gumpy’s Outing (Burningham, 1970) Pete’s a Pizza (Steig, 1998)</td>
</tr>
</tbody>
</table>
to understand their world and attempt to communicate with others. In pantomime, gesture, and dance “motion embodie[s] emotion” (Wolf and Heath, 1992). Thus, children learn on many levels simultaneously—physical, emotional, cognitive, and creative (Griss, 1998).

Because of their natural propensity for active learning, young children often come to understand literature by participating through movement (Wolf and Heath, 1992). The concept of a story becomes meaningful to the child who acts out a scene from a book or takes on the role of a character.

**Book-related dramatic play**

When children act out stories from books, they demonstrate their understanding of the text or illustrations (Rowe, 1998). Dramatizing stories allows children to manage their fears, develop values, and learn about their own and other cultures. Sometimes children even seem to develop a deeper understanding of a book than the author intended (Paley, 1997). Each child infers an individual understanding of the literature they hear, based on their unique personalities and experiences. Through their actions, children bring stories to life and compare their own experiences to the experiences of characters in books.

An important developmental issue for preschoolers is learning to understand and cope with fears (Bettelheim, 1976). The first time Nate and his mom read *Goldilocks and the Three Bears* (Brett, 1987) Nate became afraid and didn’t want to hear it again for several weeks. Then one day when the family made porridge (oatmeal), Nate assigned each person their “bear parts,” giving himself the logical role of baby bear. Although he seemed a little fearful at first, he soon asked that his mom and dad join him in dramatizing the story again. He also suggested that a family friend who happened to have blonde hair might like to come and play Goldilocks. Through book-related dramatic play, Nate not only mastered his anxiety about the story but also came to understand the roles of the characters by relating them to his own family members and friends.

Sometimes an incident that occurs during play reminds a child of a similar event in a book. Once when Grace was trying to put a doll on a toy horse, the doll fell off. Seeing the doll fall reminded Grace of the time Lucy tumbled out of the tree in *Little Bear’s Friend* (Minarik, 1960). She held up the doll and said, “This is Lucy, and I am Emily, and (pointing to her mother) you can be Little Bear. You have to fix Lucy’s arm. Get some tape.” After Mom mended the doll’s pretend break, she announced, “Now it’s time for owl’s birthday party.” Grace said, “yes” and they went into the kitchen to play birthday party.

When 2-year-old Marie was restless one evening, her mom and grandma decided to make her into a pizza. First they read *Pete’s a Pizza* (Steig, 1998). Then Mom rolled Marie like pizza dough, stretched...
her arms and legs (a gentle massage), and patted her all over. Next Mom sprinkled cheese and pepperoni (torn paper) on Marie’s tummy and carried her to the oven (sofa). Marie’s eyes were closed, but her mouth could not contain the giggles as the adults went about the dramatic enactment. After letting Marie bake for two seconds, Mom removed Marie from the oven and sliced (using hand motions) her into pieces. When Marie felt the last slice, she jumped up laughing and went on about her play.

For Nate, Grace, Marie, and many other young children, physically enacting stories is a way to learn about books and themselves. The kinesthetic experience of reliving the story through dramatization brings characters to life, and builds lasting connections to literature (Gilles, Andre, Dye, and Pfannensteil, 1998).

Book-related dramatic play, as well as other forms of play, is particularly beneficial for children with language and/or cognitive delays because it provides an opportunity for meaningful verbal communication (Morado, Koenig, and Wilson, 1999). Children are introduced to new vocabulary in stories that they, in turn, can practice during their enactments.

Many children with delays feel more comfortable speaking within the safety of a dramatic role. Mini-performances of predictable stories—for example, Caps for Sale (Slobodkina, 1947), The Gunniwolf (Harper, 1967), and simple folk tales—help children develop an understanding of setting, story structure, and the personality of characters. When helped by a teacher who facilitates without over-directing, children can learn to use their imaginations and cooperate with others to meet a goal.

As you prepare for story time, keep in mind children’s need for physical activity and the benefits of teaming literature with movement and dramatic play. Instead of telling children to sit down quietly to listen to a book, invite them to join you in a more exuberant response like bouncing, swaying, or galloping to literature! You might be surprised by new enthusiasm for story time and progress in comprehension and vocabulary.

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**About the author**

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