



KidBuilders Motoring to Literacy For Preschool and Kindergarten

KidBuilders is a comprehensive, year-long motor skills program written by Marilyn Bitsis and Margaret Schafer. It is designed to meet the needs of the motor skills teacher of young children. **KidBuilders workshops** can be customized to meet the needs of its audience—from sampler settings to 12-hour continuing education workshops. **KidBuilders** staff can train *your* motor skills teacher. If you are interested in learning more about the complete KidBuilders curriculum, please contact Marilyn Bitsis at (713) 306-9875. You may also go to www.houstonkidbuilders.com.

Motoring to Literacy for Preschool and Kindergarten presentation is just a small sampling of our sequential skills, activities, suggested music and equipment. Today's session is prepared especially for participants in the Methodist Weekday Conference 2017, who teach preschool and kindergarten children ages **2 1/2 to six** years old.

Basic Skill #1: Non-Locomotor Movement~ *let's begin at the beginning with simple moving*

- Various body movements while remaining stationary-no locomotion. The body stays in one place. *This relates to reading skills as the basis of body awareness which is a building block to reading readiness.*
 - *Stretch, twist, roll shoulders, bend knees, jump in place, etc. using active learning.*
 - *Name game with the ball to learn and remember names*

Motor Skills can and should be utilized to enhance other aspects of learning. Something as simple as Non-Locomotor movement can develop a child's memory and critical thinking skills, both strong pre-academic areas. Critical thinking requires children to reflect carefully on past experiences and to use their memory to note relationships and make comparisons based on a set of criteria. To develop the children's working memory (the ability to hold information in the mind over a period of many seconds) KidBuilders engages children in an activity requiring them to remember specific details in recent memory and move according to the rules. This is accomplished by asking the children to suggest ways of moving in a non-locomotor fashion (drawing on their memory and visualizing abilities) and by using balls to bounce or roll to our friends as we call out their names (from working memory).

Basic Skill #2: Locomotor Movement~*adding a destination and variety to simple movement*

- Basic body movements used to transport one's body from one place to another. *This relates to math skills through spatial awareness and the concept of one's body moving through space.*
 - *Walk, run, hop, jump, bear walk, crawl, walk backwards from one point to the other*

Creative movement is an ideal way to help young children develop critical-thinking and problem-solving skills. Most young children are, by nature, extremely physical. They love exploring the world with their bodies and expressing their ideas and feelings through movement. By giving the children a task (how do we get from this side of the room to the other side?) and letting them suggest ways in which to move (the locomotor movements of running, jumping, walking, crawling, etc.) they are problem solving (pre-math) as well as experimenting with how to move in space.

Basic Skill #3: Bilateral Movement~full body moving with purpose and creativity

- Movement using both sides of the body simultaneously or in parallel movement. This relates to arithmetic, which requires strong bilateral skills because it is a subject that involves mental visualization of concepts.
 - Bear walk, crab walk, frog jump, sand crab and other animal movements that use the whole body

Bilateral movement is a root skill involved in arithmetic. It requires mental visualization of unseen quantities on a regular basis. Bilaterality provides a force for growth and fluency of conceptualization (Learning –The Real “Basics” by W. Jean Foster & Dr. Verna M. Petersen). Strong bilateral skills make it easy for children to maintain quiet bodies. Linking movement experiences with language – both receptive language and expressive language – builds children’s thinking skills. Input from outside stimulation, such as naming, then imagining animals, sparks the creative initiative that can produce movement output. What better way to develop bilateral motor skills than to pretend to be an animal?

Basic skill #4: Lateral (side) rolling~specialized movement isolating the trunk and core

- Movement in both directions from back to front to back again while lying flat. Laterality relates to one’s ability to communicate and comprehend usage of vocabulary. It also assists postural strength.
 - Log rolls on a mat, roll down a hill or other incline

Many people mistakenly believe that once a baby has learned to roll over he doesn’t need any additional work on the stability, or core, muscles. The truth is that core strength and stability muscles need to be developed long after baby has mastered rolling over. “If we don’t develop strength in our shoulders and trunk first, then we won’t be able to strengthen our fine motor muscles through the use of our hands”. (Liddle, 2004)

Basic Skill #5: Body Image/Body Awareness~learning the basic parts and where they are

- The concept and knowledge of one’s body and its parts; the structure of body parts, their movement and functions, and the position in relation to one another and other objects. Body awareness relates to planning, timing, and sequencing, all needed in the acquisition of reading skills. It is also required for math skills.
 - “Head, Shoulders, Knees & Toes” song, Body Parts Squares game
 - Body Parts mats

The ability to identify basic body parts is expected of most children entering kindergarten. To gain a better understanding of body parts, what they are and where they are in space, it is important to encourage exploration and use of hands, feet, head, arms, legs, abdomen and back. By doing this we develop the proprioceptive sense telling us where our limbs are in relation to each other and to the world around us. (Liddle, 2004)

Basic Skill #6: Balance~it’s all in your head!

- The ability to gain and maintain a body position against the force of gravity by working the muscles to keep the body on its base. Balance originates in the vestibular system which is foundational to a sense of self confidence, one’s ability to move through space and judge where the body is in space. Spatial relationships are closely related to math concepts. Balance is closely related to bilateral skills. Balance is also related to visual tracking and the ability of the eye to move left to right (pre-reading readiness).
 - **Dynamic Balance:** Balance during locomotion
 - Walking on the balance beam

The Vestibular System, located in the inner ear, is activated by head movement and gravity. It helps us know if we are moving or if things around us are moving. It also regulates our balance...along with our posture, muscle tone, and eye-motor control. (Liddle, 2004; p. 16) The secret to balance is in your eyes and head. Balance can be improved by stabilizing your head and focusing your eyes straight ahead. A loss of balance can be restored with a slight bend in the knees.

Skill #7: Jumping/hopping~building on balance skills

- To spring free from the ground or other base by the muscular action of feet and legs (jumping) or one leg and foot (hopping). *Jumping and hopping involve balance and are closely related to balance and bilateral/unilateral abilities. Jumping and hopping help mature motor planning and sequencing skills needed for reading.*
 - *Kangaroo jumps as part of animal imitation; jumping from a low step or jump box, hopscotch; hopping on one foot to line up.*

The sequence of jumping is the following: Bend the knees, swing arms from back to front on takeoff, landing with both knees bent. A younger child will experience more success with jumping if he first jumps from a low (2" to 4") step or curb. Hopping (one foot takeoff and landing) is a more advanced integrated skill that will develop after good balance and jumping are mastered.

Basic Skill #8: Directionality~ Which way do I go?

- The projection of one's self in space and the understanding and knowledge of the direction (behind, in front-of, up, down, over, under) needed to achieve the desired movement. *Position words are prerequisites to basic Kindergarten skills. A firm grasp of directionality assists with spatial relationships (math) as well as sequencing (math and reading).*
 - *Obstacle course, scooters around cones in a pattern.*
 - *After the children have mastered this concept let them design their own course, explaining it to you (integrating expressive language with movement vocabulary).*

With the vestibular and proprioceptive systems working together, motor planning takes place. Motor Planning is the ability to plan, organize and carry out new actions, such as crawling under a table without hitting your head, or crawling through a tunnel without losing your sense of direction. (Liddle, 2004)
Offer lots of opportunities for the children to experience different directions and spatial relationships using their large muscles.

Skill #9: Push/Pull~Working those proprioceptors is FUN!

- **Pull:** To press against with force
 - Sit in a circle with a large piece of stretch fabric and have the children pull back and forth.
- **Push:** To exert force upon so as to cause motion toward the force.
 - Line the children up against the wall and tell them to push as hard as they can with different body parts.

Pushing and pulling work to mature the proprioceptive system which governs muscle tone, posture, and even handwriting, all needed for academic performance. The proprioceptive sense is activated by movement that stimulates special receptors in our muscles, joints, and skin...It also tells us how much force our muscles are using, and how much (and how fast) our muscles are stretching. (Liddle, 2004)

Basic Skill #10: Unilateral Movement~a little more specialized than bilateral movement

- Movement using and isolating only one side of the body. *Isolating one side of the body is the forerunner to being able to cross the midline, a concept critical to reading and writing.*
 - *One-sided angel, hop on one foot*

Unilateral movement can require a good sense of balance (one-foot standing or hopping) and is also related to hand-dominance. While strength and dexterity with both hands is optimal, the lack of dominance can lead to weaker skills in both hands. "In our world, laterality is a very important concept, appearing in reading, writing, numeration, driving, and eating, to name a few activities. It is important to focus students' attention on their left and right and to create an early awareness of this essential concept."
(Brehm & Tindell, 1983; p. 83)

Basic Skill #11: Tracking (Ocular Pursuit)~preparing for eye-hand skills

- The ability of the eyes to follow a moving object *Tracking is necessary to be able to read across a board, monitor screen or page and good tracking abilities in the early years indicates visual processing ability.*
 - "Follow the Scarf" game, Bubbles

Simple tracking starts at birth. An infant should be able to follow a slowly moving object, and by the age of 5 he should be able to stabilize his head and use his eyes independently. (Liddle, 2004; p. 149) Simple tracking activities done early will help with the development later of eye-hand coordination.

Basic Skill #12: Eye-Hand Coordination~more than just ball skills

- Use of the eyes and hands together to accomplish a skill, *needed in writing and keyboard skills.*
 - Bounce-catch (two-handed catch) a ball

If you begin eye-hand activities using slowly moving objects, like a scarf or bubbles, a child will build confidence in his ability to follow the object. When introducing balls be sure to begin with soft, non-threatening ones, like sock balls or a Gertie Ball. Rolling a ball to her in a seated (straddle) position will help her develop a sense of how fast the ball is moving towards her without producing fear of being hit.

Basic Skill #13: Eye-Foot Coordination~a combination of balance and visual tracking

- Use of the eyes and foot or feet together to accomplish a skill, *promotes tracking and timing.*
 - Standing or walking kick of a ball or kicking jug

Similar to eye-hand activities, eye-foot skills are best taught initially with objects that are non-threatening and slower moving, such as kicking jugs or newspaper balls. Link the learning to literacy by asking the children to repeat the name of the object, focusing on syllables and ending sounds (the K sound in kick and the G sound in jug. Doing so will foster phonemic awareness and a strong vocabulary.

Basic Skill #14: Cross-Lateral Movement~Integrating it all makes the brain work better

- Movement when both sides of the body are working in opposition to one another (walking with left foot forward and right arm forward), or crossing the mid-line of the body (right foot crosses over the left to step). *This shows the brain's ability to transfer information from one side to another, as in reading.*
 - Zigzag walk over rope or on a grid
 - Passing a bean bag or ball around a circle

Gross motor skills have a direct relationship to academic achievement, and cross-lateral skills are a perfect example. Being able to cross the mid-line is the large muscle equivalent to our eyes moving from one side of the page to the other in reading. Describe the movement (I am passing the ball to the right) while children are doing it. When body movements are paired with language, and language is paired with sensory motor experiences, children have two ways to make meaning of their experiences.