Gross Motor Development

* Gross motor skills involve movement of the large muscles of the body that include the torso, legs and arms. A person's gross motor skills depend on achievement of bilateral integration[.](http://caloriecount.about.com/muscle-tone-vs-strength-ft80051)
* Gross Motor skills are important for major body movement such as walking, maintaining balance, coordination, jumping, and reaching.
* Gross Motor abilities share connections with other physical functions. A student's ability to maintain upper body support, for example, will affect his ability to write.

Students with poor gross motor development may have difficulty with activities such as writing, sitting up in an alert position, sitting erect to watch classroom activity, and writing on a blackboard.

* Preschool and kindergarten children need strong gross motor skills so they can engage in age-appropriate physical activities (such as running, climbing, and throwing) and so they can participate in classroom activities that require body control (such as walking in a crowded room or sitting still during a lesson).

 Gross Motor Milestones

**Between the ages of 3 – 4 years, the child should:**

* Run around obstacles
* Walk on a line
* Balance on one foot for 5 – 10 seconds
* Hop on her preferred foot
* Ride a tricycle
* Walk up and down stairs with alternating feet, without support
* Jump from 12 inches with feet together
* Use a slide independently
* Climb well (not including ladders)
* Skip, leading with 1 leg

**Between the ages of 4 – 5 years, the child should:**

* Walk a balance beam forwards & backwards
* Perform somersaults
* Balance on 1 foot for 8 – 10 seconds
* Skip, alternating feet
* Begin to jump rope
* Throw a ball to hit a target
* Jump back
* Pump and maintain momentum while on a swing (may be started with a forward push)
* Hop 5 times on 1 foot
* Climb the rungs of a playground slide ladder

**Between 5-7 years, the child will:**

* Enjoy participating in team games
* Develop ball skills with smaller ball
* Enhance game skills like hopscotch and jump rope
* Ride a two wheeler bike
* Run up and down the stairs

Movement can be an effective cognitive strategy to strengthen learning, improve memory and enhance student motivation. Movement has been shown by educational, cognitive, psychological, medical, and behavioral research to be one of the best ways to get all children - typical and special needs alike - to gain control over their behavior and to engage with and retain what is being taught to them.

**Current research is telling us that there are positive correlations between movement/physical activity, learning and achievement.**

**Jensen (2005)**

“Simple biology supports the obvious link between movement and learning” (Jensen, 2005, p. 62). Jensen explains that oxygen is necessary for brain function, more blood flow equals more oxygen –physical activity increases blood flow (2005). Other outcomes of increased exercise/movement are: more cortical mass, greater number of connections among neurons, and gene expression to improve learning and memory (Jensen, 2005). It has also been documented that stimulating the vestibular (inner ear) and cerebellar (motor activity) system through movement activities (spinning, crawling, rolling, jumping, bending ect.) can result in “significant gains in attention and reading” (Jensen, 2005, 62).

Jensen, E. (2005). Teaching with the brain in mind. (2nd edition). Alexandria, VA: Association for Supervision and Curriculum Development.

Shovel (2001)

“The more the learners used learning activities with movement, the higher their academic achievements, especially with the following activities: sustained movement-assisted learning activities; physical contact with the learned environment; use of visual and movement modeling; and socio-kinesthetic interaction” (Shoval, 2011, p. 462).

Shoval, E. (2011). Using mindful movement in cooperative learning while learning about angles. Instructional Science, 39(4), 453-466. doi:10.1007/s11251-010-9137-2.