

**CROSS THE MIDLINE:  
Cross Lateralization**

When information moves from left to right and front to back in the brain, it crosses midlines which integrates the brain hemispheres and organizes the brain.



Cross lateralization aids the brain in placing words on a page, reading words from left to right and writing patterns in sequence.

**BODY IN SPACE:  
Vestibular/Proprioception**

Activities that develop the vestibular system coordinate the auditory, visual, and kinesthetic senses. Including spatial awareness, body control, dynamic balance, as well as locomotor skill development.



These concepts aid the brain in putting numbers or letters in sequence, discriminating different sounds, placing letters and words on a page, and writing letters in proper proportions.

**BALANCE:  
Spatial Orientation**

We get information about where we are in space from our feet not our seat. Balancing activities challenge the brain to adjust its spatial orientation using the proprioceptive system.



Balancing helps the brain to place words on a page, to read from left to right and to write patterns in sequence.

**MOTOR SKILLS:  
Locomotor and Non-Locomotor**

The brain uses motor skills to lay the framework for learning. The brain's cerebellum controls motor skills, agility, and coordination.



These concepts aid the brain in following the flow of words, sequencing patterns in math and reading, solving problems, and sorting information.

**EYE/HAND EYE/FOOT COORDINATION:  
Manipulative Skills**

Thirty-five percent of the brain's motor cortex is dedicated to the use of the hands and the feet. The motor cortex helps the brain transfer what we are thinking to the paper.



Therefore, 35% of the brain's ability to transfer information to the paper depends on good eye-hand, eye-foot coordination.

**PHYSICAL FITNESS:  
Strength and Flexibility**

Developing the muscular system provides support for the relay of messages throughout the central nervous system. Oxygen can then flow freely, supplying fuel to the brain.



Upper body and hand strength allows the student to write for longer periods.

**12 DEVELOPMENTAL FOUNDATIONS OF LEARNING**

**OUR 3L MISSION:**  
Continually striving to reach children who are Last in line, Lost in the school system, and deemed Least likely to succeed.

**CHANGING THE FUTURE FOR ALL CHILDREN BY INCREASING THEIR HEALTH, WELLNESS, AND EDUCATION THROUGH MOVEMENT**

**VISUAL DEVELOPMENT:  
Encoding Symbols**

Eye (visual) tracking exercises strengthen the muscles in our eyes to increase the length of time that eyes can focus for reading.



These concepts aid the brain in encoding the stroke of each symbol of letters and numbers, following words from left to right and focusing on reading for longer periods.

**RHYTHM:  
Beat Awareness/Beat Competency**

Activities that develop the vestibular system coordinate the auditory, visual, and kinesthetic senses. Including spatial awareness, body control, dynamic balance, as well as locomotor skill development.



These concepts aid the brain in following the flow of words, sequencing patterns in math and reading, solving problems, and sorting information.

**TACTILE LEARNING:  
Sensory Motor and Fine Motor Skills**

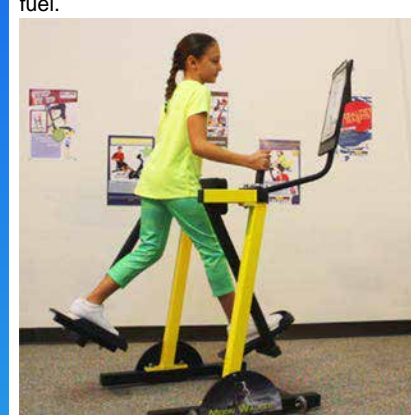
What makes us move is what also makes us think. The brain uses motor skills to lay the framework for learning. The brain's cerebellum controls motor skills, agility and coordination.



When the cerebellum is working well, cognitive function increases. Activities that involve moving the legs to move the body activate and store BDNF. BDNF acts as fertilizer for the brain.

**CARDIOVASCULAR FITNESS:  
aerobic Capacity**

Exercise benefits the brain by changing the brain at a molecular level. Since the brain does not produce its own fuel, it relies on cardiovascular exercise to pump oxygenated blood to the brain to use as fuel.



Physical Activity and exercise change the learning state to optimize retention and retrieval of memory.

**PROBLEM SOLVING:  
Embodied Cognition**

The prefrontal cortex and the cerebellum are connected. The prefrontal cortex controls executive functions like decision making, problem solving, memory, language, emotions and attention.



Practicing academic concepts using movement promotes myelination of the new information and the growth of secondary dendritic branching for better retention and retrieval of memory.

**SELF-MANAGEMENT:  
Mindfulness and Self-Awareness**

Students need tools to learn to self-manage their desired learning state. Learning and proper responses to environmental cues, such as how to be part of a group, prepares students to react more appropriately.



Being aware of how our bodies and brains work together can be used to calm down or energize appropriately.

**CROSS THE MIDLINE:** \_\_\_\_\_

**BODY IN SPACE:** \_\_\_\_\_

**BALANCE:** \_\_\_\_\_

**VISUAL DEVELOPMENT:** \_\_\_\_\_

**RHYTHM:** \_\_\_\_\_

**TACTILE LEARNING:** \_\_\_\_\_

**MOTOR SKILLS:** \_\_\_\_\_

**EYE/HAND EYE/FOOT COORDINATION:** \_\_\_\_\_

**PHYSICAL FITNESS:** \_\_\_\_\_

**CARDIOVASCULAR FITNESS:** \_\_\_\_\_

**PROBLEM SOLVING:** \_\_\_\_\_

**SELF-MANAGEMENT:** \_\_\_\_\_