

# **Motor Lab: A Sensory Motor Approach to Strengthening Academic Foundations**

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The goal of a Ready Bodies Learning Minds Motor Lab is to help children develop the skills necessary for learning readiness and mastery of the environment. Many of these skills are motor based. Handwriting, sitting still, paying attention, speaking, and behavior are all performances based on a child's ability to maneuver and function in his environment. The more aware he is of his environment and the more he learns about the sensations of his own movement, the better he can control himself and accomplish tasks.

This program can be used as a base for the skill building of Physical Education (in preschools or Kindergarten readiness), as well as building a structure for the acquisition of academic skills in older students who show weaknesses in motor skill.

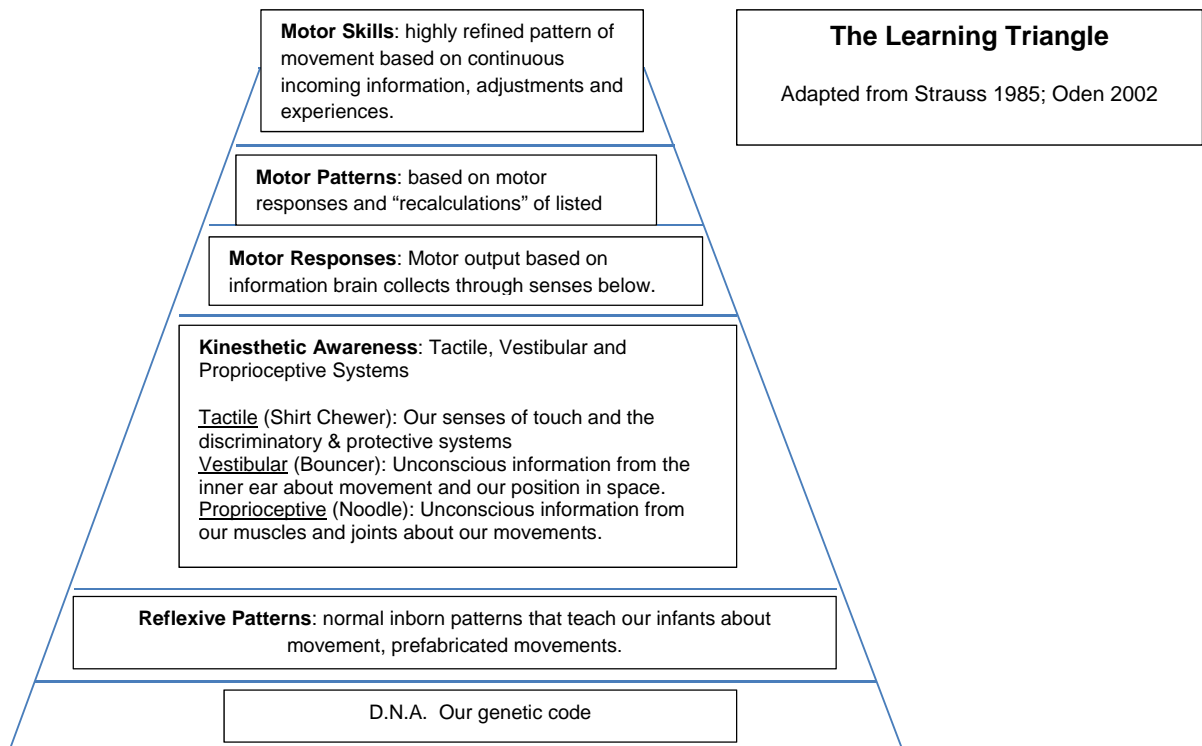
Kids can be grouped into three "personalities":

**Bouncers:** Constant movers that seems to think best when running circles around you. They love moving but sitting at a desk is torture for them.

**Noodles:** Can't seem to hold themselves up in a chair and wrap their legs around the chair or slide down like a noodle to use the furniture to hold themselves up

**Shirt Chewers:** These are the kids who have holes in their shirt, have chewed sleeves, or perhaps their pencils/pens.

"Why do kids do all these things we ask them not to do?" "How come they can't just sit up straight?" "Why do they hold their pencil like that?" Parents and teachers alike ask these questions. The simple answer is, "they are all displaying different stages of physiological and neurological development<sup>1</sup>". The foundation for these skills is based on reflexive development. Just as naturally as children learn these activities, they will learn how to refine other activities by seeing, hearing feeling and moving. The current brain research can help us understand how these patterns are processed, understood, retained and used. There is, therefore, value in recognizing the developmental steps a child goes through. Attention to early development can be a first step in the prevention of school failure.<sup>2</sup>



# Ideas for Incorporating RBLM

## **Additional Class Time (20 min), or 1 class period a week**

- a) Reflexive Warm Up (ATNR, STNR, Labyrinthine Prone and Supine Flexion)
- b) Station Work
- c) Reflexive Cool Down and Brain Gym

Each time students come to Motor Lab, we begin and end with a couple of stretching exercises that are reflexive in nature. This means that we go to the very base of motor learning—the primary movement patterns that are the beginning of motor control. Some reflexes that persist as adults are blinking, yawning and coughing. Other involuntary reflexes will be available as long as they serve a purpose in providing a learning experience. Children begin to develop voluntary control, and the reflex then becomes “learned” behavior. This learned behavior or pattern of movement then becomes a foundation for all of their other movement and posture.

**ATNR:** Asymmetrical Tonic Neck Reflex is a movement response stimulated by the position of the neck. If this reflex is still present, at an early school age, a child’s head movement will have functional effect on his arm movement. That means that if he turns his head to see the board, he often loses his place on his paper. He learns to anchor himself by gripping onto his pencil very tightly<sup>3</sup>.

**STNR:** Symmetrical Tonic Neck Reflex is a position of the head that affects the trunk and the limbs. If this reflex is still present, a child’s sitting posture will suffer because the upper and lower body isn’t in sync with each other. When her lower body flexes while sitting in school, she will tend to extend her upper body and lie across her desk. This pattern really affects motor skills and school performance will suffer<sup>4</sup>.

**Labyrinthine Reflex (Prone):** In this position, the child is learning about movement of his/her limbs against gravity and the grading or intensity of that movement. Chest and neck muscles are lengthened and core support is developing<sup>5</sup>. This activity is called “Superman.”

**Labyrinthine Reflex (Supine Flexion):** When a child curls up in a ball, bringing chin to chest and knees to their face, they are now working in an anti-gravity position called “Popcorn.” We work on holding this position without rocking side to side or chewing on knees to hold the position. The fun part is “popping out” into a flat position and lying still.

## **Station Work**

Students will rotate through stations for 1 minute segments. Every Lab session should include a Board Work activity, Vestibular, Proprioceptive and Tactile stations, and at least 1 of ball work, balance, motor planning or hand-eye-foot activities. Many of these will depend on class ability, program space, and equipment available. These activities follow a progression from introductory to more advanced ones. In a school year, you can get through the entire series if the program meets on a regular basis.

## **Classroom Teacher Directed/Indoor Recess/Transition Activities**

- a) Box of activities with directions
- b) Rotate between classrooms/grade level every 3 weeks, or on teacher request
- c) Activities in the boxes include board work assignments, tactile activities, activity cards, Brain Gym activities, fidgets, small balls and unique manipulatives.

**\*All references from Ready Bodies, Learning Minds: A Key to Academic Success, Athena Oden, P.T**