

# RHYMEY

## **Connecting the music to the science**

***Searching for songs using specific keywords***

*This table below is a guide to show you how the music and the science connect so effortlessly, bringing children into the calm alert state through musical play and learning.*

*When browsing our videos, ticking any of the “What” words in the “Focus Area” filter - you will be connected with a variety of music and movement experiences that support that focus area.*

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<b><u>What</u></b>	<b><u>What is it?</u></b>	<b><u>What does it do?</u></b>	<b><u>When it works...</u></b>
<b>Active Listening</b>	Focused, intentional hearing where children tune into rhythm, melody, tempo, and sound details.	Strengthens auditory processing, attention and self-regulation pathways. Helps children slow down, notice and respond with awareness.	The child is more present, responds rather than reacts and remains engaged in group experiences.
<b>Balance</b>	The ability to maintain the body's centre of gravity while still or moving.	Supports vestibular regulation and body awareness; steadies emotional and physical states. Strengthened through swaying, spinning, marching etc.	The child feels grounded, safe in their body, and more able to join in musical play (and general play) without dysregulation.
<b>Bouncing</b>	Vertical rhythmic movement – up and down motion through the legs or whole body.	Provides proprioceptive input and regulates arousal. Helps organise the body, release tension, and integrate rhythm physically.	Children feel more centred and ready for learning after purposeful rhythmic bouncing.
<b>Breath Control</b>	Awareness and intentional use of breath for singing, speaking, or calming.	Regulates the vagus nerve, supports vocal development and stabilises emotional states. Singing, humming, blowing raspberries or siren sounds all lengthen and deepen the breath naturally.	Children's voices become steadier, they recover from frustration quicker and their bodies remain more regulated during transitions or challenges.
<b>Calming</b>	A down-regulating state where the nervous system shifts into safety and ease.	Reduces cortisol, softens muscle tension, slows breathing and heart rate. Gentle music, humming, swaying and predictable rhythms activate the parasympathetic system.	Children settle, their bodies soften, and they become more available for learning, connection and co-regulation.

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<b>Coordination</b>	The ability to move different parts of the body independently or together when required/and automatically.	Like a well oiled machine, efficient and effective movement depends on coordinated action involving every part of the body and brain.	It develops together with the midlines and an inherent sense of rhythm and timing. It is through this process that the brain is at its highest level for thinking, reasoning and creativity.
<b>Core Strength</b>	Stability and strength in the trunk, belly, back and pelvis.	Supports breath control, posture for singing and endurance for movement-based music experiences. Enhances coordination and self-regulation.	The child can sit upright comfortably, move with confidence and participate in musical activities without fatigue or frustration. This is the foundation to learning to read, write and strengthen gross motor development.
<b>Finger Play</b>	Small hand and finger movements paired with song or rhyme.	Supports fine motor development, language pathways, bilateral coordination and sequencing.	Children focus more easily, language develops through rhythm, and their bodies remain settled through hands-on engagement.
<b>Heavy Work</b>	Pushing and pulling: Using body weight or heavy objects to assist in full body weighted movements.	Heavy work directly impacts the nervous system to regulate the whole body and mind.	Assists with a <u>calm alert state</u> for maximising learning potential.
<b>Inhibitory Control</b>	The ability to pause, wait, or stop impulses.	Builds self-regulation. Musical games like “stop-go,” freeze dances, and call-and-response strengthen the brain’s braking system.	Children can wait their turn, follow cues and adjust their body’s speed or volume with more ease.

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<b>Low Energy (as a current state)</b>	A hypo-aroused state where a child appears tired, withdrawn, flat, or disengaged. The body feels heavy and the brain has “gone offline” for protection.	Music provides activation; rhythm, beat and predictable musical patterns reconnect the brain to the body. Upbeat but not overwhelming songs increase alertness, spark connection and slowly lift the child into a calm-alert state. Movement-based music (clapping, tapping, swaying) increases oxygen flow and re-engages the sensory system.	The child gradually “comes back online,” showing more eye contact and participation. Their body has more energy, their mood lifts, and they rejoin group experiences with a steady, regulated presence.
<b>Low Frequency Vibration</b>	Low frequency vibration has a regulating effect. Hold a child close to your chest as you and/or the child talk, hum or sing.	Can create a serene environment, giving children space to calm their minds and bodies.	Including music and combined with singing, you are setting the mood for calm.
<b>Midline crossing</b>	The midlines are imaginary lines dividing the body left from the body right.	Midline development is essential to optimise the whole brain and allows the brain’s right and left hemispheres to work together.	They are the building blocks necessary to include core stability, bilateral integration, helping form dominance, planning and body awareness.
<b>Proprioception</b>	The recognition and response to the body’s position in space and with an internal feedback system using the position in space of all the joints, tendons and muscles.	We receive proprioceptive input from our senses. It plays a role in self-regulation, coordination, posture, body awareness, the ability to focus and speech.	Proprioception is the sense that lets us know where our different body parts are, how they move and how much strength our muscles need to use.

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<b>Reflexes</b>	At birth, primitive reflexes are present to assist in survival - most develop in utero. These involuntary movement patterns are designed to keep the newborn alive and help with development throughout infancy. Some primitive reflexes are the sucking reflex (around the mouth), startle reflex (pulling arms and legs in after hearing loud noise) and stepping reflex (stepping motions when the sole of foot touches hard surfaces).	Through movement they become integrated, postural reflexes emerge. Reflexes, sensory, motor input and language form the basis of learning.	Postural reflexes help the development of an upright posture and moving on two feet. When moments become automatic the brain and mind will be free to think. They are essentially the foundation for higher-level learning and development.
<b>Sensory Modulation</b>	Sensory modulation refers to the brain's ability to filter out and tune into sensory input. This focuses on the state of <u>alertness</u> the child has in order to respond appropriately in different environments.	Efficient sensory modulation is the ability to effectively regulate emotions, control impulses and maintain focus to the degree which is influenced by various inputs.	Good modulation means they can organise sensory input to create an appropriate response. Here are the "cogs" that, when well oiled, help our brains to function and learn effectively.
<b>Self Regulation</b>	Self regulation in a child is the ability to adjust, understand and control their energy level, emotions, behaviours, reactions and attention based on the environment around them.	As children use appropriate strategies to self regulate, skills such as concentrating, sharing and taking turns also develop. This ultimately helps with learning, social skills, becoming independent and engaged in daily living.	A regulated child would be in the <u>calm alert state</u> ; calm, slow and even breathing, can concentrate on tasks, socialise with others positively and tolerate if things were not going their way.

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<b>Vestibular System</b>	Located in the inner ear and responds to movement and gravity which is fundamental to the development of balance and postural control.	The vestibular sense assists with attention and focus, spatial awareness and eye movements.	The constant presence of gravity allows all the other sensory systems to work together.