

Music Learning Supports *All* Learning

by Anne Sailer and Lauren Guilmartin

In 1975, when Anne was 7 years old, she memorized the Preamble to the Constitution of the United States. “I still remember every word, some 44 years later, because I learned it through song,” she says. Many people share similar experiences of learning through music. Some can sing the U.S. state capitals, others chant the periodic table of elements, and we all sing our A-B-Cs.

Music supports learning far beyond songs specifically written to teach us facts. Music and movement activities holistically, naturally and playfully help children develop skills essential to school and life success. That is because music learning supports all learning.

Throughout this article, teachers will find accessible and enjoyable suggestions for music activities to try with their students.

allow us to place objects or events in an order, observe regularities and irregularities, use reasoning skills, and make predictions—and music is naturally pattern-rich and full of sequences.

Music Supports Learning and Development in All Domains

From pre-numeracy to executive function, physical coordination to self-regulation, music uniquely supports children’s learning across developmental domains, including cognitive, language, physical and social-emotional. Music’s effectiveness as a teaching tool is greatly enhanced through interactive music-making with children’s important caregivers (including teachers).

Cognitive Development: Early Math and Thinking Skills

There is more to the mathematical underpinnings of music than songs that incorporate numbers or counting. Pattern recognition and sequencing

Music is a Birthright We All Share

Being able to understand and participate in the music of our culture is as important as being able to understand and participate in our culture’s language. Just as we are all born with the raw materials—physiological and neurological—to learn to speak and walk, we are all born with the raw materials to learn to sing and dance. What’s more, music is a way of understanding the world around us. Imagine being born with the potential to learn to read and yet remaining illiterate for life. Children who never learn to make music are deprived of their musical birthright and remain “musically illiterate”—which should be equally unimaginable.



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In addition, music can shape children's thinking about concepts. Playing with musical contrasts—singing faster, then slower; louder, then softer—gives children experience with concepts such as speed and dynamics. Inventing song verses engages problem-solving and symbolic representation, as a child must imagine a new idea and then figure out how to alter the song to incorporate it.

To support these early math and thinking skills, it is important to provide children with opportunities to make music, not just listen to it. Music can be especially useful for helping children learn to identify, decode, predict and reproduce patterns and sequences, when the activity is a whole-body experience that incorporates singing, dancing and playing developmentally appropriate instruments.

Cognitive Development: Executive Function Skills

Executive functions help us control our impulses, filter distractions, plan and prioritize tasks, and remember instructions. Some important executive functions and supporting music activities include:

- **Working memory.** The ability to hold concepts in the mind in order to connect multiple pieces of information.
 - *Supporting music activity:* Songs with a lot of words, or songs with series of movements, like “A Ram Sam Sam.”
- **Attention control.** The ability to both sustain and switch attention for goal-directed action.
 - *Supporting music activity:* Songs where children have to pay attention to what comes next, including substitution ideas. Try “Skip to

My Lou,” substituting “skip” with other movements, such as “clap,” “stomp,” or “sneak.”

- **Cognitive flexibility.** The ability to transfer knowledge from one setting to another, or to adjust to changes.
 - *Supporting music activity:* Sing a song first in one language and then another, or sing a song at music time and then again to clean up. Try singing “Frère Jacques,” first in English and then in French or Spanish.
- **Inhibitory control.** The ability to inhibit inappropriate responses and impulses.
 - *Supporting music activity:* Strengthen this skill through songs with built-in silence/thinking moments and movement activities with “freezes,” such as “B-I-N-G-O.”

Language and Literacy Development

Not surprisingly, many musical elements that support cognitive development also support language development. Rhythmic patterns in music can improve children's abilities to detect and predict patterns in speech. The elongated syllables in songs and repetition of lyrics give children more time to think, shape the mouth, and coordinate breath. Variations in pitch and inflection in songs and chants support the development of expressive language, and rhyming supports phonological awareness.

Songs are also excellent communicators of narrative structure (e.g., “On Top of Spaghetti”) and of vocabulary not typical in everyday language (e.g., “Supercalifragilisticexpialidocious”). Conversely, songs without words, which use nonsense syllables instead

of language, spotlight phonemes and consonant/vowel sounds (e.g., “A Ram Sam Sam”). Finally, making up verses engages active listening and imagination, and singing along with storybooks scaffolds print awareness in a playful way.

Physical and Motor Development

Clapping, tapping, stomping, wiggling and freezing are fine and gross motor movements typical of early childhood that can be easily stimulated through music play—think about the finger-play in “Open and Shut Them” or the large-movement sequence in “The Hokey Pokey.” Musical movement can also scaffold locomotor/non-locomotor skills, balance, coordination and spatial awareness. Daily physical activity is an integral part of any early childhood program, and moving to music provides a natural, developmentally appropriate way to meet this requirement. (Plus, it makes indoor moving more fun, especially in schools with restricted classroom space.) Most children's songs can be easily adapted for movement (e.g., change “Mary had a little lamb...” to “Mary marched around the room, ‘round the room, ‘round the room...”).

Social and Emotional Development

Considered by many to be the most important domain for school and life success, social-emotional development can be strongly supported through music-making. Exploring variation in tempo and loudness, engaging in freeze-play through musical pauses, and waiting one's turn in a call-and-response song can help children develop self-regulation skills. Making up verses to songs, or coming up with new ways to move to a song, can support self-confidence and leadership skills.

Moving beyond a child's individual experience, making music as a group—whether singing a song together in unison, engaging in group instrument play, or even marching in a makeshift band—supports group process and prosocial skills.

Approaches to Learning

Personal attitudes toward learning, habits and dispositions combine to make each child's approach to learning unique. When children learn through inherently playful and enjoyable music-making, they may be naturally more motivated to learn, more willing to try new things, and more creative and imaginative. And, when given the opportunity to engage in unstructured instrument play or free dance, music can help children discover the intrinsic reward of self-directed exploration and experimentation. (Classroom suggestion: have a box of developmentally appropriate percussion instruments and a music player that children can use to initiate their own "jam session.")

Music Can Ease Classroom Management

Songs and chants can enhance children's educational experiences as well as teachers' lives in the classroom. Each time teachers sing, for example, a barnyard version of "The Wheels on the Bus," they are supporting children's development in multiple domains and adapting music to meet their curricular needs (which is how many of us came to learn the U.S. state capitals song!) Music can also help teachers facilitate easier transitions, increase social connections between children, and holistically reinforce classroom routines. Singing "Wash, wash, wash your hands," to the tune of "Row, Row, Row Your Boat" can be significantly more satisfying than endlessly reminding a child about that self-care requirement.

Our achievement-focused culture can be stressful for children and teachers alike. Music has the potential to help teachers nurture the whole child while playfully scaffolding skills on which students will be assessed. What a relief to have a set of teaching tools that can be fun and stress-reducing. Although the importance of school readiness in

the preschool years has been widely accepted, many educators and administrators worry that an over-emphasis on "academic" skills during early childhood conflicts with developmentally appropriate preschool/elementary school experiences.

Educators can leverage the inherent potential in music to enhance learning and development, helping children both grow into the musical beings they were born to be and reach developmental and educational milestones with more ease, less stress and long-lasting effects.

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Songs That Support Understanding of Pattern and Sequence

- Songs that play with sequences of events or tell a story (like "Itsy Bitsy Spider")
- Songs with a clear beginning, middle, and end, or those that have clear musical phrasing and compositional structure (like "Old McDonald Had a Farm")
- Songs with repetitive lyrics (like "The Wheels on the Bus")
- Songs without words that incorporate patterns of movement
- Songs from other cultures expose children to diversity in pattern