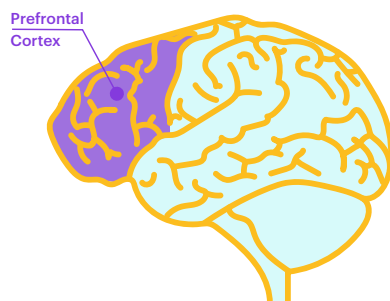


# Executive Function Support in a Music Together® Class

Executive function skills are related to cognitive development and social-emotional development. They involve systems and circuits primarily located in the front of the brain in the area known as the prefrontal cortex. Executive function skills have many components that are necessary for success in school and in life. These are skills including inhibitory control (wait/delay of responses), cognitive flexibility (the ability to shift one's attention from one set of stimuli to another), working memory (the ability to hold and work with information in the mind), and attention control (the ability to pay and hold attention to an activity or topic by filtering distraction).



We are all born with the potential to develop executive function skills, but we are not born with them already developed. This development begins in infancy! Through solid relationships with the important adults in their lives, babies and children learn to trust, and that's where all learning starts.



## Why Music?

In a Music Together® class you and your child experience a closeness and bonding while you sing, dance and play with others in this unique community. Trust is built through fun and silly activities, but these activities are chosen with a purpose.

In terms of executive function, consider the chant, “Jack-in-the-Box” from the *Sticks Song Collection*. As your teacher leads you in the chant about Jack being in “a little dark house,” you ask, “Will you come out?” There is a large pause and a deep breath before the answer... “Yes, I will!” This pause, at the height of the excitement of the chant, causes everyone—adults and children alike—to hold their attention and wait for the resolution. This waiting or delaying response before the big, exciting answer, is an example of inhibitory control. This is an essential life skill. Without the ability to inhibit inappropriate responses and impulses, success in school or work is negatively impacted.

Take another executive function, working memory. There are songs in Music Together® collections that practice this skill, but quite simply, singing a song in its entirety practices working memory. You would not be able to sing a song without holding the melody, the tempo, and the lyrics in your mind. In a Music Together class, you practice working memory simply by doing.

## Is My Child Too Young To Develop These Skills?

Executive function is something that needs to be developed slowly over time, with lots of repetition and practice. Exposure starts in infancy, and as your child continues to grow and practice these skills, they become more developed and more solidified. Early childhood is the time when the foundation for brain development is built. If your child has a weak foundation due to lack of support, they won't grow and learn as easily. This can affect later life, too. You can always learn new skills, but it is harder to do so and it takes more time as we get older. In Music Together® classes, a solid foundation is supported by repetition and practice of essential skills while making music.

## What if I can't Sing?

It is vital for a child's development to have a strong role model from the important adults in their lives. The quality of your singing is not important. Your success at providing active music-making experiences outside of class is. Your child needs the opportunity to practice executive function skills with you. And what a fun way to do it!



So sing while you are stuck in traffic. Sing while you are changing diapers. Sing before nap or bedtime. Have a dance party in the afternoon. And sign up for a Music Together® class near you by clicking on the “find a class” button on our website: [www.musictogether.com](http://www.musictogether.com).

## Selected Research

Chen, J., Scheller, M., Wu, C., Hu B., Peng, R., Liu, C., Liu S., Zhu, L., & Jie Chen, J. (2022). The relationship between early musical training and executive functions: Validation of effects of the sensitive period. *Psychology of Music*, 50(1), 86–99. DOI: 10.1177/0305735620978690

Ilari, B., Helfter, S., Huynh, T., Bowmer, A., Mason, K., Knight, J., & Welch, G. (2021). Musical activities, prosocial behaviors, and executive function skills of kindergarten children. *Music & Science*, 4. <https://doi.org/10.1177/20592043211054829>

Veldman, S. L., Hammersley, M. L., Howard, S. J., Stanley, R. M., Okely, A. D., & Jones, R. A. (2023). Associations of gross motor skills with self-regulation and executive function in preschool-aged children. *Australasian Journal of Early Childhood*, 48(3), 234–246. <https://doi.org/10.1177/18369391231175524>