

Engaging Busy Bodies and Brains with Music

Your brain thrives with music:

- Making music makes your brain glow in the dark.
- Your brain is really just a bunch of electrical circuits.
- When you think, different parts of your brain light up.

Different elements of music are processed in different parts of the brain:

- pitch interval
- pitch pattern
- harmony
- timbre
- rhythm
- pulse
- emotion
- recognition

More parts of your brain are activated when you participate in music than any other activity you can do. Your brain is practically on fire when you are:

- singing
- moving to music
- listening to the music around you
- responding with an instrument
- making music with a group.

How does music participation impact brain development?

View this TedTalk:

<http://ed.ted.com/lessons/how-playing-an-instrument-benefits-your-brain-anita-collins>

Why does music matter for little kids?

- Develops foundations for academic skills;
- Improves executive function;
- Provides social experiences;
- Prepares core skills for a lifetime of musicianship.

What happens to the brain with repeated and regular music experience?

- The more accurately a person keeps a steady beat, the better reader they will be;
- Increased experience in musical activities leads to a better ability to separate intentional sound from extraneous noise;
- Participating in regular music leads to stronger neural connections: the myelin sheath is thicker, leading to faster synaptic connections;
- Speaking the language of music leads to better overall communication, both verbal and nonverbal;
- Making music with others creates a situation in which more endorphins released. Endorphins are the neurochemicals that make us feel good.

What are the essential music skills in preschool and kindergarten?

- Singing
- Steady beat
- Instruments
- Movement

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What is the teacher's role?

- Exposure to a musical existence;
- Sing (to, with, for, and about) every day;
- Provide musical, social, physical, and emotional experiences;
- Introduction to the "classics."

Why sing? Because singing:

- Builds solid musicianship;
- Releases endorphins;
- Develops vocabulary;
- Teaches and reinforces concepts;
- Provides sensory input from within;
- Increases ability to separate intentional sound from extraneous noise.

What is the teacher's role?

- For young kids or those with minimal experience, sing to, with, for, and about the children;
- Sing every day: select songs carefully for range, complexity, language, and interest;
- Sing with a light, high voice so kids can accurately hear and reproduce your sound;
- Choose short songs with a narrow range of intervals.

Your singing routine might include:

- Welcome song
- Name song
- Vocal warm-up
- Familiar song
- New song
(Beware of "content-driven" drivel....)

Why do we emphasize keeping a steady beat?

- Prepares the body and brain for musical experiences;
- Establishes skills for reading readiness (both musical and linguistic);
- Calibrates the body systems;
- Develops group dynamic.

What is the teacher's role?

- Provide experiences for whole group and individual beat keeping;
- If individuals are keeping the beat, follow their lead, even if it is unsteady.
- Resist the temptation to move a child to the beat. Instead, tap on their back as they play or pat the beat.

Your steady beat routine will alternate between:

- Group calibrated beat;
- Individually initiated beat.

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Why do kids need to play instruments? Because playing instruments:

- Allows children to perform musical tasks without verbal input or output;
- Provides deeper learning for kinesthetic learners;
- Develops rhythmic independence;
- Reinforces syllabic awareness.

What is the teacher's role? Provide instrumental instruction that:

- Emphasizes a combination of fine and gross motor skills;
- Combines individual and whole group development;
- Reinforces melody, rhythm, and harmony;
- Keep instrument experiences calm, organized, and successful: Be sure to teach rest position!

Your instrumental routine should include:

- Language-based rhythmic activities that combine whole-group and individual experiences;
- Concrete rhythms with a variety of non-pitched instruments;
- Simple rhythm echoes;
- Experimentation with pitched instruments.

Why do kids need movement? Because:

- Vestibular system and auditory cortex are the first systems to mature;
- Kids learn best by manipulating their bodies in their environment;
- A variety of movements "awaken" the body and brain;
- Movement that crosses the mid-line connects the two sides of the brain;
- Movement brings fresh oxygen and blood to the brain.

What is the teacher's role:

- Create a safe physical and emotional environment for movement;
- Reinforce musical concepts;
- Provide a wide variety of movement opportunities. Variety is essential!

Your movement routine will provide a wide variety of movement opportunities:

- Tactile, vertical, horizontal, cross-lateral, vestibular movements;
- Locomotor vs. nonlocomotor activities;
- Creative vs. specified;
- Individual, partner, small group, and whole group activities;
- Practice starting, stopping, and waiting (developing executive function.)

Classroom music vs. music in the classroom

- A music teacher will include all elements in a concentrated period of time. The goal is developing strong musical foundations that will lead to future musical success, in elementary school and beyond. Academics may be supported and strengthened, but are not the focal point of the curriculum.
- A classroom teacher using music in the classroom will weave musical experiences in throughout the day. The goal is to use music as a tool to strengthen the academic curriculum. Musical skills may be strengthened, but are not the focal point of the curriculum.
- Both should make every effort to make both the music and the academic content meaningful both for its own sake and for overall development.

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Source list & suggested readings:

Brain Dance: Anne Green-Gilbert

Brain Rules: John Medina

Energizers! 88 Quick Movement Activities That Refresh and Refocus, K-6:
Susan Lattanzi Roser

First Steps in Music for Preschool and Beyond: John Feierabend

Northwest University Auditory Science Lab:

<http://www.brainvolts.northwestern.edu/>

Red Flags for Primary Teachers: Katie Johnson

Teaching with the Arts in Mind: Eric Jensen

Teaching Smarter with the Brain in Focus: Sarah Armstrong

Teaching with Poverty in Mind: Eric Jensen

The Brain That Changes Itself: Norman Doidge, MD

The Genius in All of Us: David Shenk

Time Magazine:

<http://ideas.time.com/2013/08/16/singing-changes-your-brain/>

What if every child had access to music education from birth?:

Anita Collins, TEDxCanberra

What Is It About Me You Can't Teach: Eleanor Renee Rodriguez
and James Bellanca