

**Upper Perkiomen School District
Elementary Instrumental Music Program
Music Education is Essential**

[Video link - You need to watch this quick video clip on the permanent positive changes that music has on the brain!](#)

Why learn music in school?

- Music offers a path of transformative development for early childhood. Four cognitive skills are supercharged by music education: Attention Control, Planning Skills, Working Memory, and Critical Thinking.
- Music keeps students engaged in school and inspires regular attendance.
- Music helps communities share ideas and values among cultures and generations.
- Music provides students with a way to express themselves in verbal and non-verbal ways, appreciate diverse perspectives, possess openness and flexibility in thinking, develop a high level of self awareness and self confidence, take risks and solve problems creatively, embrace a variety of unique ways to gain insights about cultural and historical issues, develop a rich and healthy sense of beauty and imagination.

(Reprinted from "Keep Music Education Strong")

Benefits to the Brain: Cognitive Development

- Both children and adult musicians exhibited higher cognitive flexibility than non-musicians on executive function tests. The adult musicians showed a more proficient working memory and the child musicians exhibited a faster processing speed than their non-musical peers. Most significant, the researchers found differences in brain activation between child musicians and non-musicians. "We had more activation in areas of the brain I often call the "CEO regions" - the frontal regions associated with executive function - in the children who had musical training compared to others."

Dr. Nadine Gaab; Associate Professor at Harvard University, 2014

- Children who can detect rhythm variations in music have an easier time putting sentences together. There is a direct correlation between good rhythms skills and effective language skills.

Reyna Gordon; director of the Music Cognition Lab at Vanderbilt University Medical Center, 2017

Benefits to Students: Personal and Academic Success

- Learning in the arts nurtures motivation, including active engagement, disciplined and sustained attention, persistence and risk taking. It also increases attendance and educational aspirations.

From Critical Links: Learning in the Arts and Student Academic And Social Development, Arts Education Partnership, 2002

- “Once you teach your brain how to respond to sound effectively it continues to do well beyond when the music lessons stop. A little goes a long way, but the longer you play, the stronger your brain becomes. The teens in our study showed *biological* changes in the brain after two years of participating in consistent music-making activities in school.”

Dr. Nina Kraus; Director of the [Auditory Neuroscience Laboratory](#) at Northwestern University, 2018

- Instrumental music teaches *RESILIENCE!* College admissions staff recognize that today’s youth, especially those with superior academic skills, must be resilient to be successful in their college career. College recruiters look for resilience above all else as an indicator that a student will not drop out (or worse) when coursework becomes challenging. Instrumental students are well versed in failure as it relates to success and are inclined to persevere through the tough stuff.

Charles Staley, Conn-Selmer Educational Clinician, 2018

We are just beginning to understand the enormous benefits of music education

- For example: In working with patients who had had a stroke, therapists recognize a certain asymmetric walk - very slow, very unsafe. But when the music is turned on and the patients were told to “walk to the beat,” all the parameters of movement almost instantaneously changed very dramatically. Amazing!
- Current research also suggests the playing an instrument can delay the onset of dementia like Alzheimer’s Disease. [The relation between instrumental music activity and cognitive aging.](#)
- The region of the brain that stores our music memory is in the center of the brain and “safe” from the ravaging effects of Alzheimer’s. [Article 2018](#)