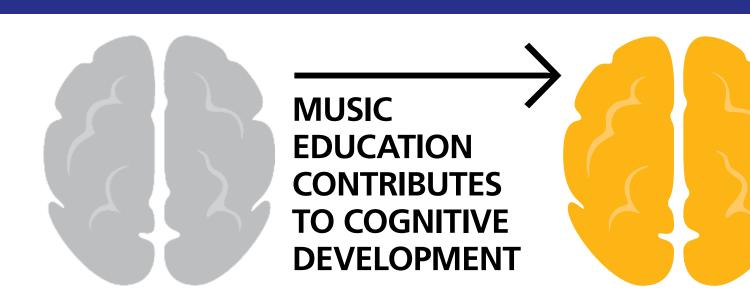
The Benefits of Music Education

NEUROSCIENTISTS HAVE DEMONSTRATED that learning to play an instrument or sing leads to changes in a child's brain that make it more likely they will reach their full cognitive and academic potential.

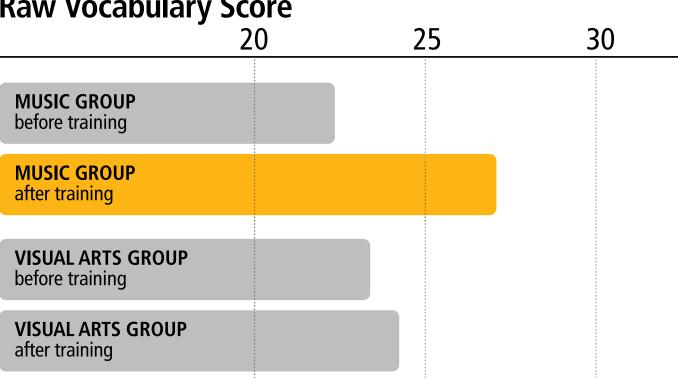


- → STRONGER CONNECTIONS BETWEEN BRAIN REGIONS
- **→ MORE GREY MATTER**
- → IMPROVED BRAIN STRUCTURE AND FUNCTION
- → BETTER MEMORY AND ATTENTION
- → HIGHER IQ

SPEECH AND READING

Young children taking music lessons showed dramatic improvement in their verbal intelligence after only four weeks of music training.1

Raw Vocabulary Score





ACADEMIC SUCCESS

The quality of a child's music education is linked to their academic achievement.²

Elementary school students in higher quality music education programs had 20% improvement

in standardized tests of English and math.²

COGNITIVE BENEFITS OF MUSIC EDUCATION

WORKING **MEMORY**

Individuals who are musically trained show better working memory abilities than those who are not. Working memory allows us to remember things and is crucial to mental arithmetic and reading comprehension.4

CREATIVITY

Scientists found a marked difference in communication between the right and left sides of the brain, which foster creativity, in individuals with musical training than in those without.5

In a study conducted through the University of Toronto, researchers showed greater increases in full-scale IQ scores among children in music lessons versus children in drama lessons or no extra lessons at all.3



"The theory of relativity occurred to me by intuition, and music is the driving force behind this intuition. My parents had me study the violin from the time I was six. My new discovery is the result of musical perception."

Albert Einstein

Eight-year-old Children: More Evidence for Brain Plasticity, Cerebral Cortex, Differing Quality and

Linguistic Abilities in of Relationships between IQ (Psychological Participants in School Science, 15) Music Programs of Standardized Test Results, Journal of Research in Music Education (Winter 2006), Volume 54,

49, issue 5, April 2011

1. Sylvain Moreno et al, 2. C.M. Johnson and J.E. 3. E. Glenn Schellenberg, 4. E.M. George, D. Coch, 5. Gottfried Schlaug, Musical Training Influences Memmott, Examination Music Lessons Enhance Music training and working The Brain of Musicians memory: An ERP study, - A Model for Functional J. Neuropsychologia, Vol. and Structural Adaptation





