

Why Be in Band?

The benefits conveyed by music education can be grouped in four categories:

- Success in society
- Success in school
- Success in developing intelligence
- Success in life

Benefit One: Success in Society

Perhaps the basic reason that every child must have an education in music is that music is a part of the fabric of our society. The intrinsic value of music for each individual is widely recognized in the many cultures that make up American life, every human culture uses music to carry forward its ideas and ideals. The importance of music to our economy is without doubt. And the value of music in shaping individual abilities and character are attested in a number of places:

*The U.S. Department of Education lists the arts as subjects that college bound middle and junior high school students should take, stating "Many colleges view participation in the arts and music as a valuable experience that broadens student's understanding and appreciation of the world around them. It is also well known and widely recognized that the arts contribute significantly to children's intellectual development." In addition, one year of Visual and Performing Arts is recommended for college - bound high school students. *Getting Ready for College Early: A Handbook for Parents of Students in the Middle and Junior High School Years*, U.S. Department of Education, 1997

* The College Board identifies the arts as one of the six basic academic subject areas students should study in order to succeed in college. *Academic Preparation for College: What Students Need to Know and Be Able to Do, 1983 [still in use]*, The College Board, New York

* The arts create jobs, increase the local tax base, boost tourism, spur growth in related businesses (hotels, restaurants, printing, etc.) and improve the overall quality of life for our cities and towns. On a national level, nonprofit arts institutions and organizations generate an estimated \$37 billion in economic activity and return \$3.4 billion in federal income taxes to the U.S. Treasury each year. *American Arts Alliance Fact Sheet, October 1996*

* The very best engineers and technical designers in the Silicon Valley industry are, nearly without exception, practicing musicians. *Grant Venerable, "The Paradox of the Silicon Savior," as reported in "The Case for Sequential Music Education in the Core Curriculum of the Public Schools," The Center for the Arts in the Basic Curriculum, New York, 1989*

Benefit Two: Success in School

Success in society, of course, is predicated on success in school. Any music teacher or parent of a music student can call to mind anecdotes about effectiveness of music study in helping children become better students. Skills learned through the discipline of music, these stories commonly point out, transfer to study skills, communication skills, and cognitive skills useful in every part of the curriculum. Another common variety of story emphasizes the way that the discipline of music study; particularly through participation in ensembles; helps students learn to work effectively in the school environment without resorting to violent or inappropriate behavior. And there are a number of hard facts that we can report about the ways that music study is correlated with success in school:

* A study of 237 second grade children used piano keyboard training and newly designed math software to demonstrate improvement in math skills. The group scored 27% higher on proportional math and fractions tests than children that used only the math software. *Graziano,*

Amy, Matthew Peterson, and Gordon Shaw, "Enhanced learning of proportional math through music training and spatial temporal training." *Neurological Research* 21 (March 1999)

* In an analysis of U.S. Department of Education data on more than 25,000 secondary school students (NELS:88, National Education .levels of involvement in instrumental music over the middle and high school years show "significantly higher levels of mathematics proficiency by grade 12." This observation holds regardless of student's socioeconomic status, and differences in those who are involved with instrumental music vs. those who are not is more significant over time. Catterall, James S., Richard Chapleau, and John Iwanaga. *Involvement in the Arts and Human Development: General Involvement and Intensive Involvement in Music and Theater Arts.* Los Angeles, CA: The Imagination Project at UCLA Graduate School of Education and Information Studies, 1999. Bound Seniors National Report: Profile of SAT Program Test Takers. Princeton, NJ: The College Entrance Examination Board, 2001. school suspensions, disciplinary reasons given, arrests, and drop - outs) total 12.14 percent of the total school population. In contrast, only 8.08 percent of students involved in music classes meet the same criteria as "disruptive." Based on data from the NELS:88 (National Education Longitudinal Study), second follow -

* Students with coursework/experience in music performance and music appreciation scored higher on the SAT: students in music performance scored 57 points higher on the verbal and 41 points higher on the math, and students in music appreciation scored 63 points higher on verbal and 44 points higher on the math, than did students with no arts participation. *College*

* According to statistics compiled by the National Data Resource Center, students who can be classified as "disruptive" (based on factors such as frequent skipping of classes, times in trouble, in *up*, 1992. music students, and that the percentage of music participants receiving As, As/Bs, and Bs was higher than the percentage of non - participants receiving those grades. NELS:88 First Follow up, 1990, National Center for Education Statistics, Washington DC model was significantly larger than for any other discipline. 36% of these students identified music teachers as their role models, as opposed to 28% English teachers, 11% elementary teachers, 7% physical education/sports teachers, 1% principals. D.L. Hamann and L.M. Walker, "Music teachers as role models for African -

* Physician and biologist Lewis Thomas studied the undergraduate majors of medical school applicants. He found that 66% of music majors who applied to medical school were admitted, the highest percentage of any group. 44% of biochemistry majors were admitted. As reported in "The Case for Music in the Schools," *Phi Delta Kappan*, February 1994

Benefit Three: Success in Developing Intelligence

Success in school and in society depends on an array of abilities. Without joining the intense ongoing debate about the nature of intelligence as a basic ability, we can demonstrate that some measures of a child's intelligence are indeed increased with music instruction. Once again, this burgeoning range of data supports a long established base of anecdotal knowledge to the effect that music education makes kids smarter. What is new and especially compelling, however, is a combination of tightly controlled behavioral studies and groundbreaking neurological research that show how music study can actively contribute to brain development:

* A research team exploring the link between music and intelligence reported that music training is far superior to computer instruction in dramatically enhancing children's abstract reasoning skills, the skills necessary for learning math and science. Shaw, Rauscher, Levine, Wright, Dennis and Newcomb, "Music training causes long term enhancement of preschool children's spatial temporal reasoning." *Neurological Research*, Vol. 19, February 1997

* Students in two Rhode Island elementary schools who were given an enriched, sequential, skill building music program showed marked improvement in reading and math skills. Students in the enriched program who had started out behind the control group caught up to statistical

equality in reading, and pulled ahead in math. *Gardiner, Fox, Jeffery and Knowles, as reported in Nature, May 23, 1996*

* Researchers at the University of Montreal used various brain imaging techniques to investigate brain activity during musical tasks and found that sight reading musical scores and playing music both activate regions in all four of the cortex's lobes; and that parts of the cerebellum are also activated during those tasks. *Sergent, J., Zuck E., Tenial, S., and MacDonall, B. (1992). Distributed neural network underlying musical sight reading and keyboard performance Science, 257, 106-109.*

* A McGill University study found that pattern recognition and mental representation scores improved significantly for students given piano instruction over a three year period. They also found that self esteem and musical skills measures improved for the students given piano instruction. *Costa Giomi, E. (1998, April). The McGill Piano Project: Effects of three years of piano instruction on children's cognitive abilities, academic achievement, and self esteem. paper presented at the meeting of the Music Educators National Conference, Phoenix, AZ.*

Benefit Four: Success in Life

Each of us wants our children and the children of all those around us to achieve success in school, success in employment, and success in the social structures through which we move. But we also want our children to experience "success" on a broader scale. Participation in music, often as not based on a grounding in music education during the formative school years, brings countless benefits to each individual throughout life. The benefits may be psychological or spiritual, and they may be physical as well:

* "Music has a great power for bringing people together. With so many forces in this world acting to drive wedges between people, it's important to preserve those things that help us experience our common humanity." *Ted Turner, Turner Broadcasting System.*

* "Music is one way for young people to connect with themselves, but it is also a bridge for connecting with others. Through music, we can introduce children to the richness and diversity of the human family and to the myriad rhythms of life." *Daniel A. Carp, Eastman Kodak Company Chairman and CEO.*

* "The nation's top business executives agree that arts education programs can help repair weaknesses in American education and better prepare workers for the 21st century." *"The Changing Workplace is Changing Our View of Education." Business Week, October 1996.*

* "Music making makes the elderly healthier.... There were significant decreases in anxiety, depression, and loneliness following keyboard lessons. These are factors that are critical in coping with stress, stimulating the immune system, and in improved health. Results also show significant increases in human growth hormones following the same group keyboard lessons. (Human growth hormone is implicated in aches and pains.)" *Dr. Frederick Tims, reported in AMC Music News, June 2, 1999*

* "Music education opens doors that help children pass from school into the world around them a world of work, culture, intellectual activity, and human involvement. The future of our nation depends on providing our children with a complete education that includes music." *Gerald Ford, former President, United States of America*

* "During the Gulf War, the few opportunities I had for relaxation I always listened to music, and it brought to me great peace of mind. I have shared my love of music with people throughout this world, while listening to the drums and special instruments of the Far East, Middle East, Africa, the Caribbean, and the Far North and all of this started with the music appreciation

course that I was taught in a third grade elementary class in Princeton, New Jersey. What a tragedy it would be if we lived in a world where music was not taught to children." *Norman Schwartzkopf, General, U.S. Army, retired*