



MUSIC MAKES THE DIFFERENCE



Music is a wonderful skill for any child, but new research shows how learning music can help your child in so many more ways:

- Improved reasoning capacity and problem solving skills
- Improve maths and language performance
- Better memory
- Greater social and team skills

Why should my child learn music?

For many years, we have believed that children should learn music 'for music's sake', because music was an excellent accomplishment and part of a well rounded, balanced education. And so it is.

But these days children are expected to learn so many more skills and parents have begun to ask which subjects their child could ignore or drop. The answer is: not music!

As every parent knows, their child is a mixture of nature and nurture. A newborn baby already has all his or her brain cells and as the child develops he or she naturally builds pathways between these cells or neurons. These pathways (referred to as neural pathways) are there for life.

Learning music from an early age enables those neural pathways to grow in ways that can help your child maximise the potential they were born with. Research shows that playing music can make significant differences to children's abilities related to learning, memory and social interactions.

Music is still an excellent accomplishment, but it can also make the difference for a child.

So when should a child start to learn music?

Any time is a good time, but the earlier the better. Ages given here are indicative, because children develop at different paces. Your music teacher will be able to advise more specifically for your child.

The important thing is to match your child's musical experiences with their developmental stage and to establish playing music as an ongoing part of their life.

From six months to around three years: musical experiences are important during these years. Many teachers run group classes where children develop rhythm, pitch, concepts such as high and low or fast and slow, use their voices and internalise sounds. This helps the child internalise the precepts of music and prepares them for learning to play an instrument.

From around three years to six years: children's brains and motor skills have now usually developed sufficiently to begin to consider learning to play instruments such as the violin, keyboard or piano. The child's ear is more fully developed, and they are learning to master language and abstract concepts.

From six years onwards: by now your child's fine motor skills have begun to develop and they can master a more wider range of instruments, such as a flute, percussion, guitar or trumpet. Now an important consideration is also to find an instrument that suits your child - for example, drums and percussion require a strong sense of rhythm, brass and wind instruments need well developed fine motor skills, and a string instrument requires the ability to hear the note when they tune and play.



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Music teachers can advise and recommend the most appropriate instrument. In this age group it's also important for children to continue to enjoy music making in groups such as choirs, school music and drama, bands, orchestras and community music groups.

Everyone has musical ability

It's true. Every child is born with musical ability, but if it's not tapped into early enough then it can fail to develop. ⁱ Being 'unmusical' is more likely to be an outcome of poor training or lack of opportunity than it is from lack of ability, and everyone has the capacity to improve their musical skills.

Research published in early 2001 indicates that all babies are born with perfect pitch - it's how they are able to recognise their mother's voice and to learn language. But if they don't learn to use their perfect pitch, they then lose it. Early music lessons help a child to retain that fundamental musical skill, which is also so critical in learning a mother tongue as well as foreign languages. ⁱⁱ

Playing music increases memory and reasoning capacity, time management skills and eloquence

A series of research experiments in Hungary in the 1950s explored why children studying at special music kindergarten and primary schools had higher academic scores than those at the mainstream schools. The studies concluded that learning and playing music improved not just academic performance, but also memory, reasoning, working as part of a group, time management and the ability to think in the abstract. ⁱⁱⁱ

Playing music improves concentration, memory and self expression

A massive two-year study in Switzerland run with 1200 children in more than 50 classes scientifically showed how playing music improved children's reading and verbal skills through improving concentration, memory and self expression. Younger children who had three more music classes per week and three fewer main curriculum classes made rapid developments in speech and learned to read with greater ease.

Other effects revealed by the study showed that children learned to like each other more, enjoyed school more (as did their teachers) and were less stressed during the various tests, indicating they were better able to handle performance pressure. ^{iv}

Playing music improves the ability to think

Ongoing research at the University of California-Irvine and the University of Wisconsin-Oshkosh ^v demonstrate that learning and playing music builds or modifies neural pathways related to spatial reasoning tasks, which are crucial for higher brain functions like complex maths, chess and science. The first studies showed that listening to a Mozart sonata temporarily improved a child's spatial abilities. Further studies compared children who had computer lessons, children who had singing lessons, children who learned music using a keyboard and children who did nothing additional. The children who had had the music classes scored significantly higher - up to 35% higher - than the children who had computer classes or did nothing additional. ^{vi}

Music training improves verbal memory

A preliminary study at The Chinese University of Hong Kong has shown that adults who had had music training before the age of 12 years had an improved ability to recall spoken words - ie. verbal memory.





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The study tested 60 adults of which 30 who had had six years or more of training with a Western musical instrument, and the balance had some training through to none.

Learning music helps under-performing students to improve

Researchers at Brown University in the US discovered that children aged 5-7 years who had been lagging behind in their school performance had caught up with their peers in reading and were ahead of them in maths after seven months of music lessons. The children's classroom attitudes and behaviour ratings had also significantly improved, and after a year of music classes were rated as better than the children who had had no additional classes. ^{vii}

Music students are less likely to be delinquent

High school students who participate in the performing arts, including the school band program, are far less likely to be involved with drugs, crime or have behavioural problems, according to a longitudinal study being pursued in the US. Called Champions of Change, the study is being undertaken by a number of researchers including those at Harvard, Stanford and Columbia. This finding is supported by the Texas Commission on Drug and Alcohol Abuse which reported in 1998 that 'secondary students' who participated in band or orchestra reported the lowest lifetime and current use of all substances' (alcohol, drugs, tobacco).

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The impact of the arts on learning: CHAMPIONS OF CHANGE

Champions of Change is the title of a publication of The Arts Education Partnership and The President's Committee on the Arts and Humanities in the USA. It presents the reports of seven teams of researchers examining a variety of arts education programs using diverse methodologies to discover their impact on broader learning and socialisation.

The discoveries overall must be of interest to the music community and indeed the community at large. Especially relevant to the musical world is the study by James S. Catterall of the Imagination Project at the University of Los Angeles. Catterall analysed data on more than 25,000 students from the National Educational Longitudinal Survey (NELS) to determine the relationship of engagement in the arts to student performance and attitudes, and also investigated the impact of intensive involvement in instrumental music on student achievement.

For the full story go to <http://www.mca.org.au/m15231.htm>

Can Music in School Give Stimulus to Other School Subjects?

Recent reports on the effects of musical activity in school shed a very positive light on the topic addressed in this paper, the effects of musical activity on extra-musical learning and achievement. For example, the highly recognized weekly magazine The New Scientist reported on the Swiss school experiment with extended music education (called "Music makes the School") in an article titled "Children learn faster to the sound of music." Nature did similarly in presenting the results of an experiment with a special arts training in eight first-grade classrooms in Rhode Island, USA, under the headline "Learning improved by arts training." The German monthly magazine, Psychologie heute, portrayed an experimental school in Berlin, Germany, under the title "Musik macht Kinder klug" ("Music makes children smart").

As a researcher who for many years has dealt with extra-musical outcomes of music and music education, I too feel quite confident to confirm these reports and to answer "yes" to the question in the title, but: things are not quite that conclusive. We should not be simplistic about the positive outcomes of music education, and I will, after this short introduction, elaborate on five qualifications as regards this positive reply.

For the full story, go to <http://www.mca.org.au/m15217.htm>

FURTHER INFORMATION

Evidence showing the benefits of music and arts education is constantly evolving. Check the websites in our Resources section for further information and additional advocacy tools.

Link: [Resources](#)

