

Active participation in music assists all forms of personal growth, both mental and physical. It builds many skills essential for everyday life and can aid mental development and learning processes. In fact, it appears that music can encourage the brain physically to alter its very structure as it grows.

Involvement in music helps all ages define their own identities, and music can create associations between groups and helps to forge links between people. In other words, music helps children to build essential social skills.

Music can create great feelings of self-worth – being creative in an artistic discipline can have a profound effect on the way children perceive themselves, and can even benefit health.

Music can change the shape of your brain

Regular participation in musical activities stimulates the development of the brain and improves mental functions.

The very plasticity of the brain, the way it shapes itself, can be positively affected by repeated musical activities. The conduit of information between the two brain hemispheres, the corpus callosum, grows larger as a result of being musically stimulated, and the pathways of communication between areas of the brain are more comprehensively connected together.

Musical activity aids the creation of new synaptic pathways, enabling multi-tasking and general creative thought, and it promotes cognitive development and helps abstract thought processes.

Music promotes language skills

All language is musical, and music itself is a language unbounded by vocabulary. We all become linguistically confident through using an extraordinarily sophisticated set of musical tools related to pitch, rhythm, timbre and dynamics.

Hearing, interpreting, comprehending and engaging in dialogue are parallel processes in music and language. Music, though, is always our initial system of communication – our musical ‘processors’ are the filters through which we learn to make sense of the spoken word – and music prepares the ground for the building of linguistic skills, speech, comprehension, expression and vocabularies.

Therefore, consciously and unconsciously stimulating children through music can help advance language skills at all stages of childhood development.

As well as the obvious benefit in helping to learn language, music also plays a critical role in the foundations of communication and expression, and therefore plays a critical role in the development of character and personality.

Because music is the foundation that underpins the learning of language, and comes more naturally at an earlier stage, children can find a means of expression through music well before they become linguistically confident.

Learning an instrument can develop mental functions

Learning to play an instrument can help enhance spatial-temporal abilities in children, where merely listening to music often does not produce the same effects, despite early evidence to the contrary.

Spatial-temporal abilities are critical for being able to sequence information and ideas, for advancing analysis and reasoning, building higher mathematical skills, refining visual interpretation and comprehension, as well as helping with planning skills.

Instrumental study requires determined periods of concentration and regular study, so, on a basic level, it helps to develop self-discipline and time-management techniques. It necessitates comprehension and communication of sophisticated concepts. Instrumental study also stimulates fine motor abilities, regulation of breathing and extended memory techniques.

Playing music often involves the comprehension and interpretation of musical notation, a highly sophisticated graphic language that is best learnt in the context of discovering how to play a musical instrument. Young children learn to read music almost imperceptibly, and quite naturally, as a by-product of learning their way around their chosen instrument. Conversely, adults who try to learn music seem to find it more difficult.

Music stimulates movement and develops physical co-ordination skills and controls

Children are constantly moving – try keeping your child still, really still, for any length of time and you'll see what I mean – and this is generally a good thing. Movement is the key catalyst for the development of kinaesthetic co-ordination skills, and music is one of the main stimulants to controlled movement. These key kinaesthetic co-ordination skills promote sophisticated mental coordination skills and essential inhibitory controls.

Therefore, music can also help control concentration skills, and enables children to focus on learning activities for longer periods.

Music helps develop memory skills for learning and retention

Humans are capable of committing huge libraries of melodic and timbral information to memory. That makes music an exceptionally efficient vehicle for advanced memory functions and processes.

Retention of purely literary information is much harder and more labour-intensive. However, when text-based information is combined with music, it can be learnt far quicker and be retained for far longer periods.

Try this quick test: see if you can speak the lyrics of one of your favourite songs without hearing the music, and you'll be amazed at how easy it is to lose your place, forget words or lines and generally 'lose the plot'. Now try just remembering the song, and the lyrics flow naturally along with the music.

Music helps us to understand maths and science

Music is an essential tool for teaching sciences, as it naturally expresses the core laws of physics in poetic and emotional forms. A reluctant young scientist can be enthused about the subject when made to realize just how important a role physics plays in music. For example, all properly trained recording engineers have studied the physics of music in great detail and use a whole array of complex meters and measuring devices in their everyday work – they call it a mixing desk!

Music also acts as a great tool for illustrating and teaching complex mathematical concepts to children. Here's just one example: as soon as you start to learn to read music you have to assimilate written rhythms. These are a summary of the benefits of music notated by means of mathematical values, and the key to playing these written rhythms correctly is to learn to count. On a more basic level, every rock band in the known universe starts their live performance with '1, 2, 3, 4...' before the band comes crashing in!

Music teaches sophisticated social skills

Music plays a critical role in developing the foundations of personal communication skills and self-expression. It therefore plays a major role in enforcing essential social skills.

Music helps children to find their place in the world, to bond with their family and assimilate their culture. Music has always been used to articulate a society's identity; its difference from others, its rules, codes and beliefs.

Music socially integrates children at ages when they may be naturally shy, and active music-making can increase a child's self esteem. It helps develop a sense of identity and self-confidence, and group skills and teamwork can be learnt very effectively through musical models.

Musical activities naturally engender leadership, communication and team-building skills, and group music-making between people of different ages can promote inter-generational understanding.

Music helps children work together

Music is able to provoke unconscious physical reactions and can initiate movement functions, and it can help people to work together through physical co-ordination and social empathy.

Music has always been used to unify laborious tasks, whether gathering in a harvest, pulling up an anchor, rowing a galley, running a production line or working in a chain gang. Many forms of music have grown from such practical origins, whether Mozart or Motown, Bach or the Beatles.

Music has inextricable links with movement, and it is rooted in precise, practical, cultural functions.

Music can help emotional wellbeing and health

Music can help control moods and can be used to set an appropriate environment or atmosphere for important social functions. Music therapy is deeply effective because music can articulate a huge range of emotions that are sometimes difficult to express using language alone. Music can elevate, depress, give space for reflection, help one remember, or mourn, celebrate or forget.

Music can stimulate the production of pleasure-giving neurotransmitters such as endorphins. Exposure to live music can dramatically lower stress hormones such as cortisol. This means that the body can adjust its own chemical balances through musical intervention rather than through the use of medical drugs.

Music has been proved to stimulate production of the hormone melatonin. Our bodies produce this chemical to enable us to sleep properly. This is possibly one of the reasons why lullabies are so successful for encouraging babies to go to sleep.

A US survey concluded that college musicians are emotionally healthier than their non-musical peers. They reported the musician students generally had more confidence in tests and significantly fewer alcohol-related problems.

Music promotes artistic self-expression and creativity

Creating and playing music brings a great deal of creative satisfaction and pleasure. It can help a child develop an artistic outlook and provides a great means of self-expression. Children are naturally creative in their learning habits and play, and music is a great vehicle for exploring natural creativity as it naturally stimulates a child's sense of imagination and curiosity.

If children create musical material of their own, they often sense a positive feeling of achievement and personal pride. This is obviously invaluable as it can build a positive self-image and personal confidence as well as developing a feeling of artistic self-worth. Acknowledging, and subsequently enjoying, their own sense of creativity can draw out children who show signs of being introverted.

If a child is regularly encouraged to think and act creatively, they will become more skilled at lateral thinking and problem-solving. Children who develop good lateral thought processes through musical composition exercises find creative intelligence challenges relatively easy and enjoyable.

Through practicing different creative composition exercises, a child can learn to see objects, motifs, or even concepts from many different 'angles' and points of view. This has a positive effect on general problem-solving, advanced mathematics concepts and personal time management.

Music assists mental development, promotes high-level co-ordination skills, engenders many social skills, enables creativity and sense of self and can even be beneficial for your health! Music helps children find out who they are, and who they can become.