

Music and Rhythm

What does music do to our brain?

We use music to:

THINK CELEBRATE GRIEVE

And we've expressed our emotional responses to music in:

LITERATURE DRAMA POETRY

Music helps us:

learn languages and build memory (Foran, 2009)

~History~

Music therapy first used in rehabilitation facilities for WWII veterans to aid in traumatic brain injuries, neurological conditions and diseases, battle fatigue (PTSD), and psychological trauma. (Foran, 2009)

That said...

"Children and adolescents who have experienced trauma, the resulting impact on the brain is connected with difficulties in emotional regulation behavior problems, poor concentration, and deficits in verbal memory" (Stein & Kendall, 2004).

The Science

The majority of a person's analysis an evaluation of emotions happens in the cortex, BUT emotional reactions CAN happen without awareness/consciousness (Foran, 2009).

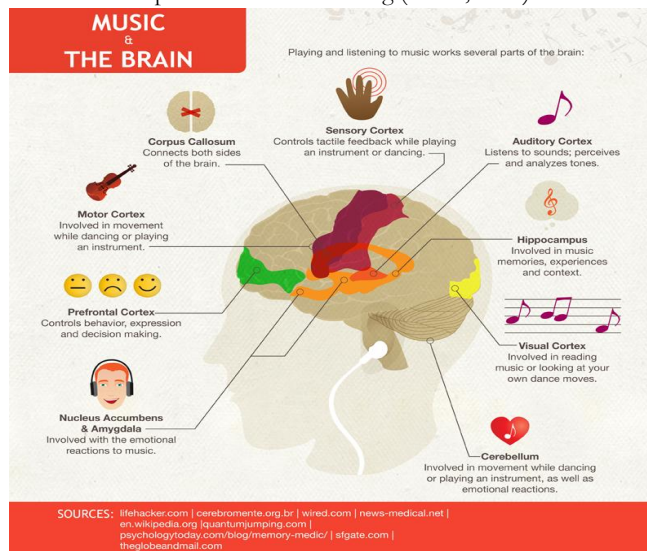
The limbic system is the center of the emotional processing and the hippocampus and amygdala keep emotional events in the long term memory (Foran, 2009).

According to Daniel J. Levitin, a person's emotional feelings go through the activation in the amygdala, activation of the arousal system by neurotransmitters, and bodily feedback.

Music engages all sensory areas (auditory cortex, sensory cortex, and visual cortex) and facilitates differentiation and development (Foran, 2009).

By engaging the cerebellum, motor skills, and frontal lobes, music helps language development. Music activates both hemispheres and helps with transferring information from one side to another (Foran, 2009).

Children with experience in music practice have increased ability to manipulate information in working and long term memory and better skills in geometrical representation and reading (Foran, 2009).



Affects

increased attention span
increased enjoyment in self-expression
increased ability to take turns
curbs impulsivity
improves confidence
manages anxiety
improves self-regulation
increases social competence
increases academic success

NOTE (Gerrity, Hourigan, & Horton, 2013).

when a student is anxious, stressed, and emotionally reactive, the amygdala responds by blocking sensory input (Foran, 2009).

Strategies to use in the classroom

play classical music to soothe the class and focus attention
create math songs for memory
use repetition and sing songs
echoing (teacher drums, students echo)
student choice of music and/or instrument
song used as timer



Dance in the classroom gives the opportunity for differentiated instruction -- for more kinesthetic learners!

aides in developing fine motor skills
develops body space awareness
develops a movement language
builds confidence in movement
develops interaction and communication skills
helps examine space, weight, time, and flow
(Munsell & Bryant Davis, 2015)