The most intricately and perfectly coordinated of all voluntary movements in the animal kingdom are those of the human hand and fingers, and perhaps in no other human activity do memory, complex integration, and muscular coordination surpass the achievements of the skilled pianist.— Homer W. Smith, From Fish to Philosopher

# STUDIES SHOW PIANO LESSONS HELP CHILDREN EXCEL

## **COGNITIVE BENEFITS**



Piano instruction is far superior to computer instruction in dramatically enhancing children's abstract reasoning skills necessary for learning math and science. - Neurological Research, February 1997



uniquely enhances higher brain functions required for mathematics, chess, science, and engineering. — University of California, Irvine Study Studying the piano before the age of seven can help boost the normal maturation of connections

between motor and sensory regions of the brain.

Concordia University Study

Students who received piano lessons scored

34% higher on tests indicating that music



lessons, young students' IQs rose nearly three points higher than those of their untrained peers. University of Toronto Study

Preschool children given six months of piano

After nine months of weekly piano or voice



lessons improved dramatically on spatial-temporal reasoning. Piano instruction dramatically enhances a child's abstract thinking skills. — University of California, Irvine Study

**EMOTIONAL AND SOCIAL BENEFITS** 



Children who have taken three years of piano instruction have significantly higher self-esteem than children who are not enrolled in piano lessons. — McGill University Study



than their non-musician counterparts. — Houston Chronicle, January 11, 1998

Playing the piano reduces stress and anxiety

more than other creative art activities. -

International Journal of Music Education, 2011

College-age musicians are emotionally healthier



discipline.

Learning to play the piano requires patience and perseverance. Good pianists are masters of



EARS

playing accordingly.

AUDITORY CORTEX

your own. Playing with others is a social experience that teaches listening, communication, and teamwork.

PLAYING THE PIANO

but check out all the things your

brain is doing at once!

Playing the piano isn't something you do just on

**BRAIN ON PIANO** 

THIS IS YOUR-



music, each in a different clef.

EYES

each other.

fingers.

VISUAL CORTEX

Sight-reading on the piano involves reading two lines of

OCCIPITAL LOBE

2 HANDS

Both hands often play intricate rhythms independently from

CEREBELLUM

PRIMARY MOTOR CORTEX

PREFRONTAL CORTEX

10 FINGERS Very few, if any, instruments require the use of all ten

PREFRONTAL CORTEX CEREBELLUM

Pianists accurately "keep time" by synthesizing and synchronizing all sensory input and motor activity. In addition, they are able to subdivide the beat in a

Pianists listen to notes being played and adjust their

TEMPORAL LOBE

PREFRONTAL CORTEX

SPATIAL

myriad ways.

CEREBELLUM

# PRIMARY MOTOR CORTEX

ARTISTIC

at the piano keyboard.

PARIETAL LOBE RIGHT HEMISPHERE CEREBELLUM

Pianists are aware of the relative position of neighbouring

parts of their body and the strength of effort being

Pianists know where all the notes are without having to look

employed in movement.

CEREBELLUM

### dynamics, articulation, rhythm, and expressive timing. PREFRONTAL CORTEX

INTERPRETATION

2 FEET

PREFRONTAL CORTEX

The left foot is used to operate the left una corda pedal

Pianists transmit emotion by capturing the mood, style, and

tempo of a song, using performance techniques such as

and the right foot is used to operate the sustain pedal. PRIMARY MOTOR CORTEX

Playing the piano activates the brain in ways no other game,

gadget, instrument or tool can. It's the total brain workout!

CEREBELLUM

to press the piano keys and foot pedals.

**PROPRIOCEPTION** 

TOUCH

Pianists use touch to determine how much force is needed

PARIETAL LOBE

## child's development. It can: Raise IQ Increase focus and attention

MAKE YOU SMARTER

PIANO LESSONS CAN

PLAYING THE PIANO

help enhance and accelerate your

Boost pattern recognition Enhance spatial organization

Sharpen cognitive abilities Improve verbal intelligence

Promote a sense of balance

Refine motor control skills

Increase self-esteem

and executive function

ACTORS

and relaxation

### lessons when they were kids get into the most competitive programs, land top jobs and are healthier emotionally. 75% of Silicon Valley CEO's took music lessons as a child.

**MUSIC LESSONS** 

### Music majors make up the highest percentage of accepted medical students (66%).

ADULTS WHO TOOK MUSIC

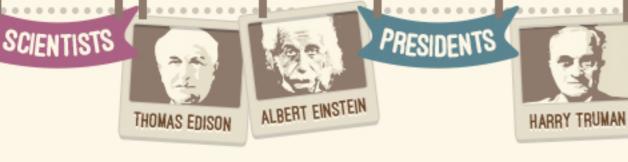
MEAN SUCCESS!

Adults who play the piano are less

likely to experience anxiety,

loneliness or depression.

# FAMOUS PEOPLE WHO ALSO PLAYED AND MORE...



KELSEY GRAMMAR

http://www.ehow.com/list\_6774249\_effects-learning-play-piano-brain.html McGill University study (Costa-Giomi, 1999)

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http://www.musigclub.com/musicbrainresearch.php "The Comparative Academic Abilities of Students in Education and in Other Areas of a Multi-focus University," Peter H. Wood, ERIC Document No. ED327480 http://www.davis.k12.ut.us/site/Default.aspx?PageID=31871







