Putting Math Skills in Place with Music

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Founder Music with Mar.

Bunny Hop Jump (unFROGettable)

*Use of patterns and sequencing
*Go in complete circle
*View from different vantage points

WH*a*t jUst *ha*pp*ened*???

*Music uses both sides of the brain increasing retention and comprehension.
*Use of patterns (as in dancing) helps the brain for higher level math skills.
*Before the age of 6, children learn best through music and movement.
* Moving the head activates vestibular system which carries impulses to other parts of the brain.
*When we don't move, we do not take in information.
~This is why children love to spin.
~As adults, it takes longer to get back to a state of equilibrium because of thicker fluid in ear canals.
*Using Kodaly method increases math abilities (number lines / solfege)

"The 8th cranial nerve is the vestibulo-cochlear which comes from the inner ear mechanism. These connect through the Vestibular system to all the muscles of the body." Dr. Carla Hannaford Smart Moves: Why Learning is Not All in the Head

We must move to learn!!

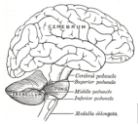
Basic Counting

*Numbers hard to understand because they are abstract; connecting to a concrete idea helps (ie "Adding Animals")
*Must have basic Spatial-Temporal Reasoning – ability to understand body and its relationship in space and time

Do NOT need to buy CDs to do these things!!!!

In and Out the Window (unFROGettable)

*Teaches following rules and interaction
*Patterns and patterns with variation
*Spatial-Temporal reasoning development



BRAIN FACT

Although test scores of use of music and no music may exhibit equal results, when memory of knowledge is compared later on, the students who learned through music and movement had better retention. (Altenmuller et al 1999).

I Can Count and Singo! (unFROGettable) To tune of BINGO

*Develop inner voice – ability to think in head without speaking
~needed for silent sustained reading and math sheets
~not developed until approximately 6/7

I Can Count to Ten (Book + 4CDs)

I can count to ten. And, you can count to ten.
And, if we count to ten one time, we can do it again. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

*Song is repeated in Spanish, Japanese and Farsi. Then, backwards.
*Counting forwards wires the brain for addition; backwards for subtraction.

ZYXs (Hear Me Sing)

*Sequencing backwards wires brain for subtraction
*Dancing produces endorphins which help brain enjoy experience

Ladybugs (Songs at My Fingertips) counting and bugs!

*Pretend to have two antennae and say "I'm buggin'!"
*Prediction – at the end, "Yes. There's 4!"

Five Hip-Hoppy Frogs (Mr. Froggy's Friends' ABCs/ Frog Glove)

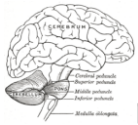
*Increase number of croaks as frogs increase – number realization
*Fun style
*Learn each time is more ribbits (5 lasts longer than 1)

I've Got a Frog On My Thumb (Mr. Froggy's Friends' ABCs/ Frog Glove)

*Names fingers – an important tool!

Use of fingerplays (child controls puppets) develops:

1. motor control;
2. self-expression;
3. skills relating to higher level math (calculus);
4. self-control; and
5. control of fine motor finger skills for writing



BRAIN FACT "The language development opportunities provided by songs and fingerplays are vital in the development of self-management." Baney (2005)

Five Fingers in My Pocket (Music with Mar./Bk + 4)

*Children like consistency – fingers always come back
*Place hand palm facing towards you. A finger down, is not 'still there'.
*Preoperational children do not have 'constancy' yet.
*Not binary thinkers. See 2 fingers on both hands as 2 fingers and not 4.
*When putting fingerpuppets on fingers, have them count along.
*To help them pay attention, remove one after putting on 2. Vary it.

What Animal's Missing (Mr. Froggy's Friends' ABCs / Barn Glove)

*Sequences
*Finding missing piece of pattern
*Do not NEED glove or song; Can just DO

Going on A Shape Hunt (Mr. Froggy's Friends' ABCs)

*Find shapes within objects around the room
*Reinforces "I'm a smart kid!" – positive belief in ability
*Move all around room, pointing and getting excited!!!!

We Know Our Shapes (Start the Music)

We know our shapes, so here's what we'll do. We'll draw our shapes and sing them, too
A circle has one line, one line that's round. Start at the top and make this sound-woop!
A square has four sides that are all the same.
Say this sound four times to play this game Wo Wo Wo Wo
A rectangle has 4 sides like a square. 2 are short; 2 are long.
Draw them in the air wo Whew Wo Whew
A triangle is different; its sides are 3.
Draw this shape and make this sound with me. Ting Ting Ting

Blending Song (Songs for a Great Day/Bk +4) Calypso Dancing

1. Take primary colors and make secondary colors – processing
2. First time states "Red and Yellow make Orange". Second time, "For orange, mix yellow and ____" getting ready for turnaround facts
3. Science/Art – blending of colors
    a. can make color wheels or use overhead projector
    b. can have cooking project – make instant pudding with food coloring

Dancing Disco Dogs (Singing in a Different Key)

*Patterns, sequencing
*Spatial-Temporal Reasoning
*Body control necessary for understanding of numbers

LIST OF RELATED CITATIONS

"Putting Math Skills in Place with Music"

Presented by Staff Developmental for Educators (SDE)

Maryann Harman, MA ED

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