

**Rough Rider Health Promotion Conference  
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**Teaching With the Brain in Mind, A Truly  
“MOVING” Experience!**

**Presented by**

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**2006 Disney Outstanding Educational Specialist Teacher of the Year**

**2006 USA Today All-Star Teacher Team**

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*Exercise does more than build muscles and help prevent heart disease. New science shows that it also boosts brainpower—and may offer hope in the battle against Alzheimer's. - Newsweek Magazine March 26, 2007*

*Our bodies are very much a part of all our learning, and learning is not an isolated "brain" function. Every nerve and cell is a network contributing to our intelligence and our learning capability. – Carla Hannaford*

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**Exercise triggers** the release of BDNF a brain-derived neurotropic factor that enables one neuron to communicate with another. (Kinoshita 1997) Students who sit for longer than twenty minutes experience a decrease in the flow of BDNF. Recess and physical education is one way students can trigger sharper learning skills.

**Crossing the midline integrates** brain hemispheres to enable the brain to organize itself. When students perform cross lateral activities, blood flow is increased in all parts of the brain making it more alert and energized for stronger, more cohesive learning.

Activities that cross the midline include but are not limited to juggling, rope jumping, certain specific exercises, and dance.

### **Juggling:**

Juggling is a fun activity that crosses the midline and involves eye-hand coordination.

Juggling progression:

- How to hold balls and scarves
- Scarves hands on top and rip down
- Balls hands underneath, toss to apex
- Progression: start with one ball or scarf, then two, then three
- Always start with the hand that has two pieces of equipment in it when juggling three.
- Cues: cross cross catch catch for two pieces of equipment and throw, catch, throw, catch ....for three.

Jumping and spinning are necessary to lay the foundation for learning.

Short Jump Rope:

- How to tell if your jump rope fits
- Jump rope tricks for individuals
- Jump rope tricks for partners

Long Jump Rope

Chinese Jump Rope:

- Pattern: 1,2,3,4 in out in out in on
- Tricks – name game, white rabbit
- Progression – ankles, calves, knees, wais

## Core Stability and Dynamic Balance Activities

To develop Core Stability and Dynamic Balance I use a stations approach with the following equipment choices. These are also awesome activities that help promote climbing skills. I use them when teaching how to climb the bouldering/transverse climbing wall. I call them “off the wall” activities

Balance improves reading capacity. The vestibular and cerebellum systems (inner ear and motor activity) are the first systems to mature. These two systems work closely with the RAS system (reticular activation system) that is located at the top of the brain stem and is critical to our attentional system. These systems interact to keep our balance, turn thinking into action, and coordinate moves. Physical Education curriculum games and activities that stimulate inner ear motion like rolling.

Equipment:    Stability balls/Therapy Balls/Swiss Balls  
                  Stability pads  
                  Dome cones  
                  Bean bags  
                  Stilts  
                  Pogo Sticks  
                  Balance boards, wogglers, unicycles, roller skates, skateboards, scooters

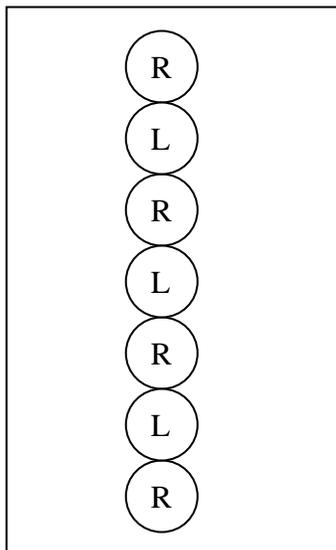
The stability pads and dome cones activities are the same but effect is different with the stability pads being less stable.

Teaching cues:        Foot in the middle (of cone or pad)  
                              Focus eyes and head  
                              Slow controlled movement

Pathways and Challenges:

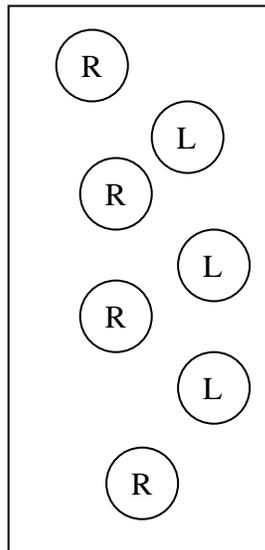
Straight Pathway:

- Forwards
- Backwards
- Sideways



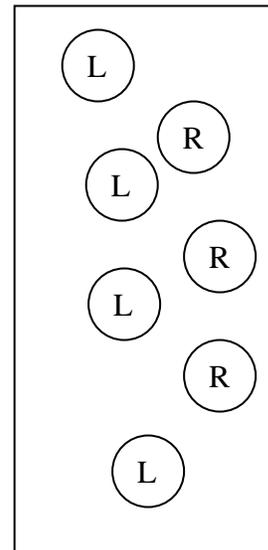
Zig-Zag Pathway:

- Forwards
- Backwards



Zig-Zag Pathway:

- crossover



Challenges: Once students have mastered the above pathways and directions add the following challenges:

- Bean Bag Balance on head and other body parts while moving on stability pads/dome cones.
- Bean Bag pickup and move forward while balancing on dome cones
- Bean bag balance and pickup and move.

Challenges on Stability Pads:

- Balance on right foot
- Balance on left foot
- Knee balance
- One knee balance
- Seat balance
- Superman/eagle balance
- Make own pathways and travel using different body parts for balancing

Stability Ball Activities/Challenges:

- Ride the horse
- Seat Balance
- Seat Balance to Ride the Wave
- Curl-ups
- Foot patterns while bouncing – straddle, together, and skier
- Drumming
- Bounce and turn right and left
- Superman/eagle balance
- Alligator
- Alligator, 3 pushups and return
- Tiger
- Back stretch

Dancing, Rhythms and Patterns:

**Dance Rules:**

Do Your Best  
If you are facing the wrong way, turn around  
**ACCEPT ALL** for partners  
Have Fun☺

**Teaching Tips:**

Don't emphasize rights and lefts  
Partners can be anyone, don't demand boys and girls  
Keep instructions short and sweet  
Have students say and do cues

**Content Standards:**

- 1) Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.
- 5) Exhibits responsible personal and social behavior that respects self and others in physical activity settings.
- 6) Values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.

**Reminder:** *“Too much talking makes them blue more of them and less of you!”*

**HAND JIVE**

Formation: Scattered

Music: Shake a Tailfeather cd , #2 Willie and the Hand Jive”

Thigh, thigh

clap, clap

cross, cross (right hand over left scissor)

cross, cross (left hand over right scissor)

hammer, hammer (right fist ontop of left fist)

hammer, hammer (left fist ontop of right fist)

hitchhike, hitchhike over left shoulder

hitchhike, hitchhike over right shoulder

Repeat from top

variation: smash the mosquito. Instead of hitchhike reach right hand in air and pretend to catch a fly or mosquito and smash in other hand, grab and smash.

**HANDS-UP PARTY DANCE (Club Med Dance)**

Music: Hands Up! (give Me Your Heart) by Ottawan

Formation: Scattered one wall dance

Chorus: Hands up Hands up - raise hands in the air and lower them with words

Give me your heart - point with both hands together at someone and circle both arms/ hands around to your heart, repeat.

All your love - reach across your body with one arm and point while bringing your arm all away across your body back to the other side, repeat with other hand the other direction on follow up (all of your love)

On rest of song just do a step together step with a clap, right and then left to the beat of the music. Follow the words to the song and you'll be alright!!!! Have fun with it!

**THE CONGA LINE**

Music: Best Years of Our Lives, Baha Men, Shrek Soundtrack

Scattered or in lines

Walk, walk, walk out - basic pattern to be repeated one million times. May add arm and hip actions and words or sounds.

### **MACARENA**

Music: CD *Mouse House, Disney Dance Mixes*, #4 Tiki Tiki Tiki Room

Formation: Scattered/Lines

Macarena is a hand and body language dance done to 16 beats of music. Good hip motion is essential to this dance.

1. right hand goes out palm down
2. left hand goes out palm down
3. right palm up
4. left palm up
5. right hand to left shoulder
6. left hand to right shoulder
7. right hand to right back of ear
8. left hand to left back of ear
9. right hand to left hip
10. left hand to right hip
11. right hand to right buns
12. left hand to left buns
13. roll hips with hands on buns
14. with small jump turn 1/4 turn to left, with clap.

Hand, hand, over, over, shoulder, shoulder, head, head, hip, hip gluteus, gluteus, hula hoop, hula hoop, jump, turn, clap

Repeat pattern for duration of song.

### **D'Hammerschmledgselin**

Music: D'Hammerschmledgselin (German Folk Dance) Christy Lane Multicultural Folk Dance Treasure Box Cd #1

Formation: Partners scattered or in groups of 4's

Hand Pattern: Slap with hands: Thigh (1), Stomach(2), Clap Hand Together (3)  
Clapping hands with partner: cross (4), cross (5), together (6)  
Repeat this pattern 4xs through

Second part: Make a right hand star and skip ccw for 8 cts then reverse direction for 8 cts.

Repeat dance from beginning.

Variation: Once partners have the pattern then put them in groups of 4's. Couples perform the dance together using an alternating clapping pattern. The first couple starts the hand pattern and the second couple begins their hand pattern while the first couple is on the 4,5,6. of the hand pattern. They then continue with this pattern throughout the hand pattern section. On the star they make a four person star.

### **PATTY CAKE POLKA:**

Music: Patty Cake Polka , Wagon Wheels

Formation: Partners scattered or Double circle dance

Cues: Moving in scattered position or in double circle line of direction counter clockwise

CCW Heel Toe, Heel Toe, slide slide slide

CW Heel Toe, Heel Toe, slide slide slide

Clap Right, Clap Left, Clap Both, Clap Down

Elbow Turn

Mixer: and move to your left right now and repeat with new partner

Variation: Do this same dance to McHammer "Can't Touch This". Break it down = Free Dance

### **ELECTRIC SLIDE**

Music: Electric Boogie by Marcia Griffiths, Album: Carousel

Formation: Scattered or lines (4 wall Dance)

Directions: vine to the right -

vine to the left -

Walk backwards - right, left, right, clap

Rock steps - rock forward on left foot and back on right

Brush foot forward and make a 1/4 turn to right - on brush turn 1/4 turn to right go directly into the vine right, repeating the dance to another wall

Cues: Right Step, behind, step clap

Left Step, behind, step clap

Back, back, back, clap

rock , rock , rock , brush, turn

Repeat dance to another wall....

### **Closing Thoughts:**

Movement can help reinforce academic skills for all students.

Eighty five percent of school age children are natural kinesthetic learners (Hannaford).

Sensory motor learning is innate in humans. Teachers who incorporate kinesthetic teaching strategies reach a greater percentage of the learners. Eric Jensen says that implicit learning (learning through your body) is more powerful than explicit learning (text, facts, and basic recall). If its not in your body, you havent really learned it. He suggests movement, physical activity and rhythms as a way teachers can help students bind learning through perceptual motor skills, procedural encoding, and sensory integration. It should be just as natural for a math teacher to use movement in the classroom as for a physical educator to have students skip count.