

# Healthy Teacher Network Spring Workshop-May 17, 2011

## Action Based Learning in the Classroom

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### Why are we doing this? Movement and Physical Activity:

- help children learn through the body kinesthetic intelligence (also spatial/visual, logical/mathematical, intrapersonal, interpersonal, and rhythmical).
- develop better spatial awareness and help the brain see letters and numbers on a page.
- stimulate static and dynamic balance to help the brain and body focus and pay attention.
- cross the midlines of the brain and body to help coordination and thinking by organizing, integrating and energizing the brain's hemispheres.
- activate BDNF (Brain-Derived Neurotrophic Factor, or Miracle Gro for the brain according to Dr. Ratey) that nourishes and protects neural pathways used in learning. Students that sit for longer than 20 minutes experience a decrease in the flow of BDNF.
- activate the release of endorphins, adrenaline, serotonin, and dopamine. These chemicals work together for a feeling of well-being.
- use repetitive gross motor movements that help the brain in patterning and sequencing.
- help decrease the level of cortisol (interferes with learning) in the body and reduces stress naturally, and can act as an anti-depressant.
- facilitate motivation, creativity, increase self-esteem, and can promote cooperation and communication skills.

### Aerobic activity (activity that elevates heart rate into target heart rate zones):

- delivers oxygen, and glucose to the brain faster. This is important because the brain metabolizes fuel faster than other organs and fuel is needed for proper function. Some schools have students participate in aerobic activity before test taking.
- has been proven to grow new brain cells in the learning and memory centers of the brain.
- Research has shown a correlation between physical fitness and academic achievement.
- helps maintain a healthy weight.
- enhances sleep.
- can improve a body's resistance to disease.
- helps build a healthy heart and lungs.

### LACK OF EXERCISE CAN CONTRIBUTE TO:

- childhood obesity
- Type 2 diabetes in children
- memory and learning problems
- difficulty in ability to focus and pay attention (particularly in boys)

The National Association for Sport and Physical Education (NASPE) recommends that children should accumulate at least 60 minutes, and up to several hours, of age appropriate physical activity on all, or most days of the week. **Quality daily** physical education programs really help fulfill this recommendation.

### Activities

**1. Mingle Mingle-(CATCH)** Good for an icebreaker, and for recall. Students should move to the music, find a partner when the music stops, and give that partner a high 5. That will always be their high 5 partner. When music restarts, students begin moving again and need to find a **new** partner. When the music stops they need to ask this partner what his/her favorite subject in

school is. This person will be the “favorite subject” partner. Continue meeting and remembering new partners for new categories, i.e. favorite food partner, secret handshake partner, etc. Students need to remember the category for each partner. Occasionally have students go back and recall partners. For example, “Go back and find your secret handshake partner.

## **MATH/SPELLING**

### **2. Tap Counting-(Madigan and Sladkey)**

Use Mingle Mingle to find partners, who will then determine who is Partner #1, and Partner #2. Partner #1 starts by ‘gently’ tapping his/her right hand onto the right palm of Partner #2 and then tap left hands. Partner #2 then taps right palm, left palm of Partner #1. Practice this steady rhythm, taking turns tapping. Then start counting:

- Easy-Partner#1 taps and counts 1-2, Partner #2 taps and counts 3-4, etc. Maintain that steady beat as partners count and tap 1-30-. 1-50, whatever you want.
- More Challenging-Skip Counting. Use the same R-L-R-L pattern but count by 2’s (3’s, 5’s, whatever multiplication table needs practicing.)

**Tap Spelling**-Use the same tapping pattern as above using the alphabet, or vocabulary words.

- Easy-Tap and say the alphabet.
- More Challenging-Partners tap out a spelling word the teacher announced.
- Most Challenging-Each person thinks of a word and doesn’t tell the partner what it is. Each partner taps and spells her/his word while listening and figuring out the partner’s word.

### **3. “Rock, Paper, Scissor, Math”-(Sladkey)**

This activity also requires partners. (Or, it will work with a group of three if class is uneven). Students tap own fist on palm while saying “Rock, Paper, Scissors (R,P,S) Math”. On “Math”;

- Easy-Each partner puts out 1-5 fingers on one hand. Partners try to be the first one to add all of the fingers together correctly.
- More Challenging-Students use both hands to display fingers.
- Even More Challenging
  1. Student use fingers of one hand, but multiply to find the product.
  2. Students use fingers of two hands, find sum of own fingers, sum of partner’s fingers, and multiply the two sums.
  3. Find sum of right hands and multiply by the sum of the left hands.
  4. Can also do negative numbers (ex. Person closest to the door is a negative number).

### **4. Say 21 and Win-(Sladkey)**

The object of this game is to be the partner that can say 21. Partners begin tap counting consecutive numbers until someone says 21. However, each partner has the choice of saying one number or 2 numbers at a time. (ex. If Partner #1 just finished her/his turn and said “2”, Partner #2 could say just “3”, or “3” then “4”. Partners try to anticipate numbers so they can be the one to Say 21 and Win. If one game is finished, start another.

### **5. Jog ‘N’ Spell, or Jog ‘N’ Math**

Students stand next to their desks and jog for 15-30 seconds (music is always motivating, and doubles as a start/stop sign. Give them a vocabulary word to write down on a sheet of paper on the desk while they are standing. Continue until desired list is completed. Math problems are done the same way. Jog, give a problem, students stand and write the answer on their sheets.

**6. Wall Spelling-**Place 26 8X11 sheets of paper with letters of the alphabet on them around the room. Create a stack of index cards with a different vocabulary word on each. (Incorporate words from other curricular areas also). Have students come up to receive a card. Students read the word, and spell the word by going around the room and touching the correct letters. After a student completes a word he/she will return it to you and receive another word. There is a lot of movement going on here. Students have to be instructed that they cannot touch anyone else while they travel carefully. This is great for spatial awareness.

- Variation for older students-Partners start with a mini-stack of words (4-6). The first partner reads a word to the other, who then spells it by touching the correct letters. Partner #1 watches and checks for correct spelling. Switch tasks. Correctly spelled words are kept in a separate pile. Challenge partners to see how many correctly spelled cards from the stack they can collect. When one stack is completed, partners bring it back to the teacher and switch for another stack.

**7. Exerword-**State a word and students spell it while exercising. Example-“Spell house, jumping jack, Go”. Today we’ll be doing 1. small arm circles, 2. elbows-to-knees, 3. push-ups, 4. heel raises, 5. jumping jacks, 6. lunges.

## **SOCIAL STUDIES**

**8. “ N-S-E-W-Can you guess which one’s the best?”** Post 8X11 sheets of paper labeled N-S-E-W-NE-SW on corresponding walls. Have a music source. When the music starts, students begin walking. When the music stops, students stand by any direction sign. Roll the ‘Direction Dice’ (homemade dice made from a white, square box, labeled with N,S,E,W, NE, SW. If students are standing by the correct direction sign, they receive a point. Keep repeating this process while students try to ‘guess the best’. The object of the game is to try to be the first one to get 5 points, and to learn directions.

**9. Map Work-**You’ll need an erasable map of the United States, erasable markers, and small cards with the names of the 50 states. This activity is done like a relay race. To play:  
Part I-Divide the class into 5 teams (or however many would work for you). Give each team an erasable pen and 5 state cards, one for each student. Have teams decided who will go first, second, etc. When the teacher says, “go”, the first person goes to the map and labels the state of his/her card. After labeling, the first player returns to the team and hands the marker to the next player. Encourage cooperation in helping team members identify states correctly. Continue until each team finishes. Check the map with the class for accuracy.

Part II-Pretend the classroom is a large map of the U.S. (Reuse the N-S-E-W signs). Have students become their states and stand where they think they fit on the map. Students have to communicate to determine if they are positioned correctly in relation to other states.

## **BRAIN BREAK**

**NUTRITION-** Refer to your Go-Slow-Whoa sheet. This was developed by the CATCH program as a way for students to identify and categorize the foods in their diets. GO Foods are foods that can be eaten almost anytime. SLOW Foods are foods that can be eaten sometimes, and less often than GO Foods. WHOA Foods are foods that can be eaten only once in a while or on special occasions, and eaten less than SLOW foods. There are no NO Foods. Each of the seven sections of the Food Guide Pyramid contains GO-SLOW-WHOA foods.

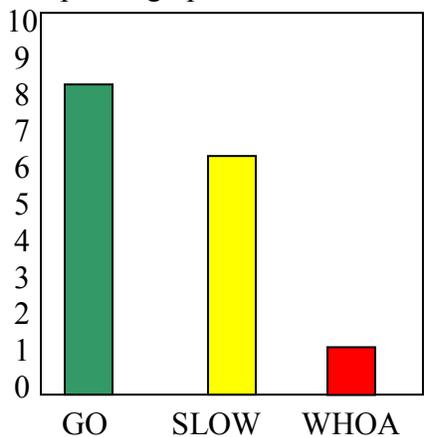
### **10. Food Fitness Game-(CATCH PE)**

- You’ll need to have as many food pictures as possible, labeled GO, SLOW or WHOA on one side, and with exercises and numbers on the other side. GO Food exercises need to be labeled with 5s. For example, 5 jumping jacks. SLOW Foods need to be labeled with

10s (10 push-ups). WHOA Foods need to be labeled with 15s (15 elbows-to-knees). Check with your physical educator for exercises the students know. Spread these cards in the middle of the classroom.

- Split class into teams of three, and have teams determine order.
- On “Go”, or when the music starts, the 1<sup>st</sup> player runs to the middle and chooses a food card. This player returns to the team, tells the team what food it is and if it’s a GO, SLOW, or WHOA food. Then the player turns the card over, reads the exercise, and leads the team in that exercise.
- Team members continue getting cards, relay style, and exercising until the stop signal.
- When finished, ask student what they learned about food in relation to how many exercises were required for GO, SLOW, and WHOA foods.
- Lead discussion about the need to balance good nutrition and exercise to maintain a healthy weight.

**11. Food Graphing**-Have a list of someone’s (the teacher’s, a student’s?) food intake for one day prepared ahead of time. Call out each food. As a class, have students identify a food the teacher calls out as a GO, SLOW, or WHOA food. Graph each food. Have the class look at the completed graph and determine if the day’s food intake comprised a healthy diet.



**12. CHAIR YOGA**-Just as movement, activity, and exercise are important for students’ physical and emotional health, flexibility and relaxation are also important. Here are some simple Yoga exercises that can be done while seated:

1. Sun Salutation-While inhaling, bring palms together at heart level and reach up. While exhaling, bring arms down through sidearm.
2. Downward Facing Dog-Hands on knees, head down, shoulders relaxed-inhale and exhale.
3. Upright-Uncurl one vertebrae at a time to an upright position while inhaling and exhaling.
4. Cobra-Hands on separated knees, lean torso forward and arch back while inhaling/exhaling.
5. Downward Facing Dog
6. Upright
7. Hip Taps-Tap hips with both hands as you twist torso R-L-R-and hold here. Look over shoulder and breathe. Repeat to the other side are you tap hips L-R-L hold, and breathe.
8. Sun Salutation
9. Gorilla Arms-Relax head and neck and let arms hang. Inhale as you rotate arms in a small circle one way. Exhale and reverse arm rotation.
10. Upright
11. Sun Salutation

**BRAIN BREAK-Gotcha**-Have class form a circle. All should hold their left hands out to the left, palm up. Next, all should take their right index fingers and point it down into the palm of the person on the right. When the teacher says, “Gotcha”, all should try to grab the person’s finger in their palm, while trying to not get their index finger caught. Repeat with arms crossed.

**Resources:**

<http://www.emc.cmich.edu/BrainBreaks/> **Activity ideas by age and curricular areas, designed by the Michigan Department of Education**

[http://www.nyc.gov/html/doh/html/cdp/cdp\\_pan\\_staff.shtml](http://www.nyc.gov/html/doh/html/cdp/cdp_pan_staff.shtml) **K-3 Activity in the classroom resources from New York City Department of Public Health**

<http://www.aahperd.org/letsmoveinschool/> **Great resource from the American Association for Health, Physical Education, Recreation, and Dance. Click on Physical Activity in School**

<http://www.nhlbi.nih.gov/health/public/heart/obesity/wecan/> ***We Can!* (Ways to Enhance Children's Activity & Nutrition)** is a national movement designed to give parents, caregivers, and entire communities a way to help children 8 to 13 years old stay at a healthy weight. **Click on “Eat Right, and “Get Active”.**

[http://www.sph.uth.tmc.edu/catch/whats\\_new\\_food.htm](http://www.sph.uth.tmc.edu/catch/whats_new_food.htm) **Click on either English or Spanish updated Go Slow and Whoa foods (CATCH)**

<http://www.catchinfo.org/> **CATCH (Coordinated Approach to Teaching Child Health) grant opportunities to acquire the CATCH program**

<http://www.mypyramid.gov/> **Up to date food guide pyramid. Look under Specific Audiences Kids 6-11 for some nifty computer games.**

<http://www.energizingbreaks.com> **Information on examples of Brain Breaks by Dan Sladkey**

<http://actionbasedlearning.com> **Jean Blaydes Madigan-creator of Action Based Learning**

<http://www.jamschoolprogram.com/> **The JAM School Program brings physical activity and health education into the classroom. JAM is designed to teach kids (and adults) healthier lifestyle habits. JAM is a free wellness resource for schools.**

CATCH.(2004). *Coordinated Approach to teaching child health*. The Regents of the University of California and Flaghouse, Inc.

Dennison, P., & Dennison, G. (1986). *Brain gym*. Ventura, CA: Edu-Kinesthetics, Inc.

Madigan, Blaydes, J. (2000). *Thinking on your feet*. Action Based Learning

Ratey, J., & Hagerman, E. (2008). *Spark*. New York, NY: Little, Brown, and Company

Sladkey, D. (2009). *Energizing brain breaks*. (1<sup>st</sup> ed.). Energizing Brain Breaks Inc.