

# ***Jump Rope For Heart Program May Improve Student Performance***

## **Jumping rope may be a perfect exercise for the brain**

“Physical activity is good not only for the heart, but also for the brain, feeding it glucose and oxygen, all of which makes it easier for children of all ages to learn. Numerous studies show that children who exercise do better in school.”<sup>1</sup>

Education is in the age of standards-based assessment. Students experience learning and make connections based on curriculum that is designed with specific academic objectives in mind. Some of the most beneficial lifelong learning comes from real life experiences that cannot be measured by paper and pencil tests alone. Problem solving, communication, goal setting, creativity, perseverance, risk taking and altruism are skills that help create productive, well-rounded citizens. The American Heart Association’s *Jump Rope For Heart* program can help students achieve many of the academic standards by encouraging them to engage in experiential learning strategies that anchor learning 90% better. Students also learn about important health and fitness practices that can lead to healthy, active, lifelong behavior changes.

### **JUMPING ROPE MAY BE AN IDEAL BRAIN EXERCISE**

Jumping rope is an excellent exercise for cardiovascular fitness, muscular endurance and coordination. Now researchers are learning that exercise like jumping rope also prepares the brain for optimal learning. Current brain research supports the need for movement in the learning process. Here are just a few of the ways that jumping rope may help prepare the brain for learning.

- Raising heart rate gets more blood to the brain, feeding it needed nutrients and oxygen for heightened alertness and mental focus.
- Aerobic exercise grows new brain cells in rodents, and promising research suggests that may also apply to humans.<sup>2</sup> In short, jumping rope is an exercise that allows both brain hemispheres to perform parallel.
- The vestibular system that creates spatial awareness and mental alertness is strengthened through activities such as jumping rope.<sup>3</sup> Balance and jumping activities provide the student with a framework for reading and other academic skills.
- Rhythmic aspects of jumping rope can develop the internal dialogue *needed* to establish basic reading skills.<sup>4</sup> Beat awareness and beat competency simulate the basic rhythm patterns of our language that need to be established for better language acquisition.<sup>5</sup>
- Physical activity reduces stress. Cardiovascular exercise places the brain into homeostasis and contributes to balancing the body’s chemistry, electrical, and organ systems. Exercise can have similar benefits as some anti-depressant medications.<sup>6</sup> Jumping rope can be a lifelong activity requiring little equipment, time and space.

“All things being equal, a healthy active student learns better”<sup>7</sup>

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<sup>1</sup> Begley, S. “Your Child’s Brain”, Newsweek, Feb. 19, 1996

<sup>2</sup> Gage, R. and Van Praag, H. “New Brain Cells,” Scientific American, May 1999

<sup>3</sup> Hannaford, C. “Smart Moves,” Great Ocean Publishers, 1995

<sup>4</sup> Brewer, C., and Campbell, D., “Rhythms of Learning,” Zephyr Press, December 1991

<sup>5</sup> Weikart, P., ‘Beat Competency and Beat Awareness’, AAHPERD Convention Presenter, Orlando, 2000

<sup>6</sup> Ratey, J. “A User’s Guide to the Brain”, Pantheon Books, 2001

<sup>7</sup> Hesslow, G., cerebellum researcher from Sweden.

## **CREATIVE ENHANCEMENTS TO *JUMP ROPE FOR HEART* MAY HELP ACHIEVE OTHER ACADEMIC STANDARDS**

Not only does a physically fit, healthy body learn better, movement provides cognitive reinforcement when using multi-sensory teaching techniques. Academic standards in reading, math, science and social studies can be specifically taught in a *Jump Rope For Heart* program delivered through the physical education curriculum. By having a *Jump Rope for Heart* event, the physical educator can integrate other academic objectives into the physical education standards that are met by doing the jump rope unit. All curriculum areas can be represented to satisfy the talents, learning styles, and multiple intelligence of all students. Here are just a few possibilities...

### **MATH**

**Estimation:** Estimate how many jump ropes long is the gym? How many jump ropes wide is the gym? Do you think the number will be greater than or less than the cafeteria? Students in teams cooperatively measure the gym in jump rope lengths.

**Geometry:** We now know the length and width of the gym. What is the area of the gym? What is the perimeter of the gym?

**Data Collection:** Gather heart rate data to develop story problems, create graphs, and compare and contrast activities.

### **LANGUAGE ARTS/READING**

Write a persuasive letter to send to prospective donors explaining why donating money to the American Heart Association helps fight heart disease and stroke.

Create a video showing the benefits of jumping rope and *Jump Rope For Heart*. Students work in groups to write the script. They develop the main idea, create the setting, select the characters and organize the facts and concepts.

Write a newspaper article following the event to be sent to the local newspaper.

Role-play a scenario to practice communication skills when asking for donations.

### **SCIENCE**

Transform the gym into a model of the heart. Work together in groups to create stations of an obstacle course that represent the cardiovascular system. Explain what happens in the heart and body as you travel through the obstacle course system.

### **TECHNOLOGY**

Record the instructions for each station of the heart obstacle course using a digital camera and computer. Create a station card with words and pictures for each station.

### **SOCIAL STUDIES**

Using a map of the school neighborhood, city, state and USA, designate where the donations for *Jump Rope For Heart* came from. Make a graph using the data.

### **ART**

Create a poster to announce the *Jump Rope For Heart* event.

Create bumper stickers, art for T-shirts, or billboards about the importance of cardiovascular fitness.

### **MUSIC**

Recite some common jump rope rhymes like “Cinderella Dressed in Yellow”. Write a new, more modern jump rope rhyme or create a rap rendition.

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Author: Jean Blaydes, Educational Consultant, former Physical Educator and pioneer Jump Rope for Heart Coordinator. For more information, please visit [www.actionbasedlearning.com](http://www.actionbasedlearning.com)