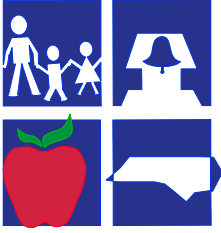


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**NORTH CAROLINA**  
**Health**  **Wellness**  
TRUST FUND



North Carolina  
Alliance for Athletics,  
Health, Physical Education,  
Recreation and Dance

*Energizers* were developed by:



**Activity  
Promotion  
Laboratory**

**College of Health  
and Human  
Performance**

# Math Middle-School Energizers

Classroom-based Physical Activities

The way teachers integrate  
physical activity with academic concepts



# Acknowledgements

The "Energizers" were  
developed by the

**EAST CAROLINA UNIVERSITY**

**Activity Promotion Laboratory**

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The goal of the Activity Promotion Laboratory is to promote active lifestyles. We are indebted to the North Carolina Department of Public Instruction (NCDPI), Be Active North Carolina, Inc., NC Healthy Schools, the NC Alliance for Athletics, Health, Physical Education, Recreation, and Dance (NCAAHPERD), and the Physical Activity and Nutrition Branch for providing funding for this project. In particular, we wish to thank Kymm Ballard at NCDPI for her non-stop support of the efforts to help teachers integrate physical activity into the school day.

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**About the Cover:** We would like to acknowledge and thank C.W. Stanford Middle School in Hillsborough, NC for their work with the Energizers and allowing us to use the picture on the cover.

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The Middle School Energizers were developed by East Carolina University, Activity Promotion Laboratory in partnership with the NC Department of Public Instruction (Healthful Living and Healthy Schools Sections), the Health and Wellness Trust Fund, Be Active North Carolina, the NC Alliance for Athletics, Health, Physical Education, Recreation and Dance, and the Physical Activity & Nutrition Branch.

## NC Health and Wellness Trust Fund Commission

Established in May 2001, the NC Health and Wellness Trust Fund Commission (HWTF) invests in programs and establishes partnerships to address the health needs of vulnerable and underserved populations in North Carolina. Recommendations from HWTF's Study Committee on Childhood Obesity led to the amendment of the Healthy Active Children Policy requiring 30 minutes of daily physical activity for each child in grades K-8.



### Fit Kids

Fit Kids, an initiative of HWTF, will provide curriculum-support materials to assist teachers with implementation of this mandate through a resource rich web site, [www.FitKidsNC.com](http://www.FitKidsNC.com). HWTF will also provide trainings on physical activity integration into the school day using these web site resources to all K-8 teachers in the state. These trainings will be conducted through a grant to Be Active North Carolina and the Department of Public Instruction.



## **Energizer Partners**

### **Be Active North Carolina**

Be Active North Carolina, Inc. is a 501 (c)(3) non-profit organization dedicated to improving the health of all North Carolinians. Our mission is to increase the physical activity levels and healthy lifestyles of all North Carolinians through people, programs and policies.

### **The NC Department of Public Instruction**

The North Carolina Department of Public Instruction is the agency charged with implementing the State's public school laws and the State Board of Education's policies and procedures governing pre-kindergarten through 12th grade public education. The elected State Superintendent of Public Instruction heads the Department and functions under the policy direction of the State Board of Education.

The agency has approximately 530 positions providing leadership and service to local public school districts and schools in the areas of curriculum and instruction, accountability, finance, teacher and administrator preparation and licensing, professional development, and school business support and operations.

*The Healthful Living Section* is responsible primarily for curriculum and staff development in the areas of health and physical education. In addition, we oversee the athletics, sports medicine, and drivers education programs for the K-12 public schools.

### **North Carolina Healthy Schools**

The North Carolina Healthy Schools is funded by the Centers for Disease Control and Prevention. It is designed to create a working infrastructure between education and health to enable schools and communities to create a Coordinated School Health Program. The Department of Public Instruction and the Department of Public Health house the Senior Advisors who establish relationships and build capacity. A model school health program includes these eight components:

- Comprehensive School Health Education
- School Health Services
- A Safe Physical Environment
- School Counseling, Psychological and Social Services
- Physical Education
- Nutrition Services
- School-Site Health Promotion for Staff
- Family and Community Involvement in Schools

NC Healthy Schools focuses on improving the health of students and staff by providing coordination and resources. With all of these components in place and working together, students will be healthier in school, in class, and ready to learn.

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**North Carolina Physical Activity and Nutrition (PAN) Branch**

The Physical Activity and Nutrition Branch is housed within the NC Division of Public Health, NC Department of Health and Human Services. The PAN Branch is the lead state agency for developing and implementing healthy eating and physical activity interventions with state and local health agencies, as well as with community partners throughout the state.

The PAN Branch's mission is to stem the rising tide of obesity and chronic disease among North Carolinians by helping them to eat smart, move more and achieve a healthy weight. This mission is accomplished through the administration of successful statewide programs such as the NC Statewide Health Promotion Program and the NC Arthritis Program.

The PAN Branch staffs the Eat Smart, Move More...North Carolina movement, guided by the Eat Smart, Move More Leadership Team. The movement encourages healthy eating and physical activity wherever people live, learn, earn, play and pray. Eat Smart, Move More...NC exists because statewide partners collaborate to increase opportunities for healthy eating and physical activity through changes in policies, practices and environments. The shared vision among the many partner organizations is a North Carolina where healthy eating and active living are the norm, rather than the exception.

For more information on Eat Smart, Move More...NC visit [www.EatSmartMoveMoreNC.com](http://www.EatSmartMoveMoreNC.com)

**The North Carolina Alliance for Athletics, Health, Physical Education, Recreation and Dance (NCAAHPERD)** is an alliance of six associations:

- Dance Education Association of North Carolina (DANCE)
- North Carolina Association for Athletic Education (NCAAE)
- North Carolina Association for the Advancement of Health Education (NCAAHE)
- North Carolina Sports Management Association (NCSMA)
- Physical Education Association (PEA)
- Student Majors Association (SMA)

NCAAHPERD's mission is to provide advocacy, professional development, and unity for health, physical education, recreation, dance, and athletics professionals and students in order to enhance and promote the health of North Carolinians. Our vision is to be the leading organization promoting and supporting a healthier, more creative, and active North Carolina.

NCAAHPERD is one of North Carolina's oldest professional associations dedicated to the advancement of research and education within the fields of Athletics, Health, Physical Education, Recreation and Dance. NCAAHPERD is involved in advocacy initiatives locally and nationally.

## **Energizers Background**

In January of 2003, the State Board of Education passed the Healthy Active Children Policy (HSP-S-000). This policy provides schools with guidance for local school districts to promote coordinated school health programs, and emphasizes physical education and physical activity components. In April 2005, the State Board of Education revised the policy to mandate that schools provide a minimum of 30 minutes of physical activity for all K-8 students daily. It further states, "the physical activity required by this section must involve physical exertion of at least a moderate to intense level and for a duration sufficient to provide a significant health benefit to students". [A moderate level is described by most as a "brisk walk".] Finally, the revised policy states, "structured/unstructured recess and other physical activity (such as, but not limited to, physical activity time, physical education or intramurals) shall not be taken away from students as a form of punishment. In addition, severe and/or inappropriate exercise may not be used as a form of punishment for students." In order for this to happen in NC classroom teachers must take a small, but important role to assure children are provided with the mandated amount of physical activity.

It is through the support of NC Health and Wellness Trust Fund, NC Healthy Schools, Be Active North Carolina, Inc., NC Alliance for Athletics, Health, Physical Education, Recreation, and Dance (NCAAHPERD), NC Department of Public Instruction and the Physical Activity & Nutrition Branch who allowed East Carolina University (ECU) to write, pilot, and develop the Energizers for daily use by classroom teachers.

This was a much more difficult task because of the "cool" factor associated with middle school students. That is, middle school students are reluctant to do anything that makes them feel uncomfortable. Due to this barrier, ECU has tried to design activities and movements that middle school students will feel comfortable performing. A Movement Bank is provided at the end of this booklet that can help teachers choose activities that work in their classrooms.

Most of the activities are associated with North Carolina Standard Course of Study Objectives. Some activities do not have associated Standard Course of Study Objectives, but can still be useful as a review of previously covered concepts. In addition, although a specific activity may be identified with a specific grade level because of the Standard Course of Study Objective, teachers of other grade levels may be able to use these activities by modifying the content. Along those lines, we encourage teachers to review the Middle School Energizers in other content areas, as they may be able to easily modify those activities to fit within their own content area.

To help develop age-and content-appropriate activities, ECU's team of physical activity specialists collaborated with a group of middle school teachers from the following content areas: math, language arts, science, music, health and physical

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education, and social studies. After the Middle School Energizers were developed, they were sent to middle school teachers throughout the state for pilot testing. The feedback from middle school teachers was then used to revise the Middle School Energizers to their final form.

The following middle school teachers significantly contributed to development of the Middle School Energizers:

Barnanne Creech (Zebulon GT Magnet Middle School, health and physical education)

William Fuller (CM Eppes Middle School, social studies)

Jeff Gibson (Ayden Middle School, music)

Christine Hodges (Pitt County Schools, language arts)

Madeleine Mahar (St. Peter's Catholic School, math)

Vivian Smith (EB Aycock Middle School, science)

We recognize that some teachers will be reluctant to try Middle School Energizers in the classroom because of the concern that students will be "out of control." However, evidence is mounting that students learn better when they move (e.g., use of classroom-based physical activities has produced improvements in on-task behavior). Also, we intuitively know that many students find it hard to sit at a desk for an extended period. These activities may be what is needed to help students look forward to school and to learn better.

### **Directions**

Teachers should align the Energizer activities with the curriculum content they will teach for the year. Middle School Energizers are provided by subject, so that Middle School Teams can discuss how to implement them. This way, content specific teachers can rotate who will provide activity allowing the responsibility to be shared when students are not in physical education, intramurals, or other designated physical activity time. We suggest using these Middle School Energizers two to three times per day, when possible. Most activities are easily adapted for special needs students, rainy days, and other areas of study by changing the focus.

### **Availability**

The "Energizers" will be available on the following web sites free in PDF format for easy download:

NC Healthy Schools: [www.nchealthyschools.org](http://www.nchealthyschools.org)

Be Active North Carolina, Inc: [www.beactivenc.org](http://www.beactivenc.org)

NC Physical Education for Me: [www.ncpe4me.com](http://www.ncpe4me.com)

Eat Smart Move More NC: [www.eatsmartmovemorenc.org](http://www.eatsmartmovemorenc.org)

NC Health and Wellness Trust Fund: [www.fitkidsnc.com](http://www.fitkidsnc.com)

NCAAHPERD: [www.ncaahperd.org](http://www.ncaahperd.org)

ECU Activity Promotion Lab: [www.ecu.edu/cs-hhp/exss/apl.cfm](http://www.ecu.edu/cs-hhp/exss/apl.cfm)

We are proud of the work from all of the partners that made this document a reality.

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## What Teachers Say About Middle School Energizers

"Middle School Energizers are easier to do than I first thought."

"The Crazy Coordinates activity is good for ADHD kids who need to move!"

"The students were impressed with the way we combined social studies, math, and PE, all in one lesson. Most students will want to do the Miles Apart activity longer."

"The Mapercise activity worked great, just as instructed. Kids really liked the racing and movement aspect."

"Students love this activity [Bring It On]! It holds their attention and offers a chance to move and 'get the wiggles out'."

"The 'wiggly' kids loved this [Race to Grammar]. They were helping each other and cheered each other on. What a stress reliever for all."

"In the Name That Shape activity, having students draw polygons on paper after performing the activity reinforces learning and helps the student to be accountable and involved."

"Operation Computation was quick and easy to do."

"Hot Tamale is a good activity to use after the mock EOG."

"Crazy Questions is good for sequencing, listening skills, auditory processing, and multiple intelligences."

"Ups and Downs was an excellent activity. The students were eager to participate and it became more fun as the activity progressed."

"Students loved Stop, Clap, and Rap. It was a lot of fun."

"I used Stop and Scribble as a review game in social studies and for a spelling test. Surprisingly, it worked to focus students more than distract. The in-place activities could be used as memory joggers for anything from grammar to geography. Great, super easy, and fun!"

"Size It Up is an excellent way to review and reinforce formulae."

"I used Show Me the Mean, Median, Mode with pre-algebra. It was a great change of pace."

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"Have a Ball was fun and easy to incorporate in my class."

"Middle School Energizers can be independent practice and application of the content taught."

"Many Middle School Energizers are excellent for reviewing content previously covered."

### **What Students Say About Middle School Energizers**

"It gets your brain going."

"It [Chapter Review Charades] gives me a new way of identifying words."

"It [Name That Shape] helped me remember the number of sides on the shapes."

"True or False was a fun activity and it kept us active."

"It gets your mind working."

## Creating A Physically Active Classroom Atmosphere

Below are some helpful hints for classroom teachers to use to create a physically active environment:

1. Create a positive atmosphere that enhances the self-esteem for all students. Each student should feel respected and valued. We do not all move alike or at the same speed. Value each child based on individual abilities. Modify activities when needed.
2. Have a signal or sign that can refocus students quickly so that they can "freeze" and listen to you when you need to speak or end the activity.
3. Share appropriate personal information with your students. Students respond favorably to the instructor who shares personal anecdotes or participates with them actively.
4. Be Fair. Make certain each student understands the teacher's expectations prior to the start of the activity.
5. Expect Success! Assume all students can, and want, to be active-including those with special needs.
6. Model enthusiasm for physical activity. Be aware that students (at first) may seem apathetic or silly. These are common expressions of being self-conscious about trying something new in front of their peers. With practice, this discomfort can be minimized and students will be more relaxed and willing to participate.
7. Give instructions before and after arranging the room to get ready for participation. Remind students of the rules for the activity and the "freeze" signals.
8. Take time to make sure that objects are out of the way for safe movement.
9. Set a time limit for the activity before beginning movement. Be sure to share with students.
10. Compliment groups or individuals so that all groups or individuals feel as though their participation was valued.

### Ideas for Signals:

1. "Give me a hand" - Tell the kids, "give me a hand" and students raise one hand in the air. "Give me a clap" and students clap. "Give me a stomp" and students stomp one foot. You can then ask any combination such as "Give me three claps and a stomp" and the attention is focused on you.
2. Have a "laughing scarf". When the kids see the scarf - students may laugh. However, when you put it away, that means "silence" and all attention is on the teacher. This keeps students from laughing at others.
3. Have live music you can play and stop when you want students to freeze.
4. Begin to clap 3 times, then repeat as often as needed to refocus students. You can also clap at different levels of loud to soft or change the tempo of the clap to gain their attention.
5. Put your hand in the air. Tell students that when our hands go up, our mouths go closed.

## HEALTHY ACTIVE CHILDREN RESOURCE SHEET

### Resources for Principals ([www.ncpublicschools.org/curriculum/health](http://www.ncpublicschools.org/curriculum/health))

- Healthy Active Children Policy HSP-S-000
- *Appropriate and Inappropriate Practices*
- *Move More: North Carolina's Recommended Standards for Physical Activity in School*
- Teacher evaluation review form
- Physical education program evaluation as a demonstration school

The Balanced Curriculum documents can be a great resource in transitioning schools. These documents are located at [www.ncpublicschools.org/curriculum](http://www.ncpublicschools.org/curriculum).

- *A Balanced Curriculum: A Guiding Document for Scheduling and Implementation of the NC Standard Course of Study at the Elementary Level and*
- *A Balanced Curriculum: A Guiding Document for Scheduling and Implementation of the NC Standard Course of Study in the Middle Grades*

### Resources for Teachers ([www.ncpublicschools.org/curriculum/health](http://www.ncpublicschools.org/curriculum/health))

- [www.FitKidsNC.com](http://www.FitKidsNC.com) Web site: A new resource-based website that will provide information and hands-on support materials for teachers, parents and community leaders.
- Elementary and Middle School Energizers: [www.ncpe4me.com](http://www.ncpe4me.com)
- Classroom Management Techniques  
<http://www.theteachersguide.com/ClassManagement.htm>  
<http://www.teachervision.fen.com/>  
<http://drwilliampmartin.tripod.com/classm.html>
- Creating a Physically Active Classroom Atmosphere
- National Association of Sport and Physical Education (NASPE) Teacher Toolbox for teachers
- *Inclusive Physical Education*
- LEP students in Physical Education
- *Appropriate and Inappropriate Practices*
- *“North Carolina Intramural Handbook: Active Living Through Sport and Activity -*  
[www.ncpublicschools.org/curriculum/health/resources](http://www.ncpublicschools.org/curriculum/health/resources)
- Physical education program evaluation as a demonstration school
- [www.d2f.org](http://www.d2f.org)
- [www.pecentral.org](http://www.pecentral.org)

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## Table of Contents: Math

Crazy Coordinates .....	13
Custom Fit .....	14
Heard it through the Grapevine .....	15
Jumping Jack Math .....	16
Math Mission Impossible .....	17
Operation Computation.....	18
Over and Under .....	19
Show me the Mean, Median, and Mode .....	20
Sign Me Up .....	21
Size It Up.....	22
Stop and Solve.....	23

### Adaptable to Any Subject

Alphabet Soup .....	24
Crazy Questions.....	25
Everybody is a Star.....	26
Have a Ball .....	27
Hot Tamale .....	28
I'm A Student and You're a Student, Too! .....	29
Sports on the Move.....	30
What's My Job? .....	31
World's Strongest Student .....	32
Energizers Movement Bank.....	33

*Name of Activity:* **Crazy Coordinates**

*Grade Level:* 7th

*Subject Area:* Math

*North Carolina Standard Course of Study Objective Number(s):*

4.01 Collect, organize, analyze, and display data (including box plots and histograms) to solve problems.

*Formation:* Standing at desk with a partner

*Equipment:* Boom box, rock music, graph paper with coordinate grids drawn on them, chalk board with coordinate grid drawn on it, pencil

*Rules/Directions:*

1. Teacher plays music softly.
2. Students face partner and do an activity from the Movement Bank (e.g., squats, jog in place, jumping jacks, shoot an imaginary basket)
3. After 10 to 15 seconds, teacher stops music and calls out an ordered pair with its capital letter label, writing it on the board as s/he calls it out.
4. Students plot and label the ordered pair on their coordinate grid.
5. Continue until all points have been plotted.
6. As students cool down, have individual students plot points on chalk board and check their work.

*Variations:*

1. Same activity, but teacher plots point on the board and students write the ordered pair. Use this activity to reinforce graphing ordered pairs in all four quadrants of the coordinate grid. Activity can be done with 6th, 7th, or 8th graders.
2. For ease of movement move desks to the sides of the room.
3. Rotate partners to evenly distribute energy.

*Name of Activity:* **Custom Fit**

*Grade Level:* 6th

*Subject Area:* Math

*North Carolina Course of Study Objective Number(s):*

2.01 Estimate and measure length, perimeter, area, angles, weight, and mass of two- and three-dimensional figures, using appropriate tools.

*Formation:* Standing at desks

*Equipment:* None

*Rules/Directions:*

1. Write the following activities on the board.
  - Inches - 12 baby hops forward then backward
  - Feet - 3 large steps forward then backward
  - Yards - lunge forward and backward
  - Miles - pretend to run through tires on a football practice field (20 seconds = 1 mile)
2. Students should be running in place until they act on the answers.
3. Teacher calls out physical activity to be done with each appropriate unit of measure.
4. Teacher reads expressions such as, distance from Boston to Chicago. Students respond with activity corresponding to the appropriate unit of measure.
5. After 10 to 15 seconds, teacher calls out a new expression.
6. Continue this activity until all expressions are called out. Repeat expressions that need more reinforcement.

*Variations:*

1. Have students perform the same activity with metric units of measure, millimeters, centimeters, meters, and kilometers. Students can tiptoe for millimeters.
2. Use this activity to reinforce appropriate units of linear measure.
3. Select new activities from the movement bank to maintain student interest.
4. If space permits have students begin the activity with an arms length in front and back of them.

**Name of Activity:** Heard it through the Grapevine  
**Grade Level:** 7th  
**Subject Area:** Math  
**North Carolina Course of Study Objective Number(s):**  
**Formation:** Students stand at desks, facing the side of the room.  
**Equipment:** None

**Rules/Directions:**

1. Teacher should review the grapevine dance step or have students slide, shuffle, or karaoke.
2. Teacher calls out a mathematical expression such as  $6 + (-6)$ .
3. Teacher tells students to grapevine right or left to indicate which direction to move on the number line to perform integer computation.
4. Students grapevine right or left, depending on the sign of the correct answer (e.g., right if it is positive and left if it is negative).
5. Students should be doing an activity from the Movement Bank between mathematical expressions.
6. Teacher calls out a new expression.

**Variations:**

1. Have students perform the same physical activity with subtracting integers.
2. Activity is best used with a class of 18 to 20 students.
3. Use activity to reinforce addition using a number line.

*Name of Activity:*       **Jumping Jack Math**

*Grade Level:*           6th - 7th

*Subject Area:*          Math

*North Carolina Standard Course of Study Objective Number(s):*

6th grade: 1.04 Develop fluency in addition, subtraction, multiplication, and division of non-negative rational numbers;

7th grade: 1.02 Develop fluency in addition, subtraction, multiplication, and division of rational numbers.

*Formation:*             Standing at desk

*Equipment:*            Math problems

*Rules/Directions:*

1. Teacher calls out an addition, subtraction, multiplication, and/or division problem.
2. Student must mentally solve problem and perform the corresponding number of jumping jacks or other specified movements.

*Movement variations:*

- Bicep curls with math book
  - Knee lifts
  - Standing sit-ups (raise right knee to left elbow, then raise left knee to right elbow)
  - Squats
  - Marching in place
  - Chair dips
  - Sports activities (tennis shots, football passes, volleyball spikes)
3. Students jog in place while waiting for each math problem. Mental math in action!

*Variation:*

1. Incorporate integers, word problems, fractions, and ratios.



**Name of Activity:** Math Mission Impossible

**Grade Level:** 7th - 8th

**Subject Area:** Math

**North Carolina Standard Course of Study Objective Number(s):**

Review of any content area

**Formation:** Create four stations, divide the class into groups of no more than 4 students

**Equipment:** Various: calculators, jump ropes, cones, balls, hula hoops, stop watch

**Rules/Directions:**

1. Set up stations with an academic task and a physical activity.
2. Each group goes to a station and students begin the physical activity listed. The students must perform the physical activity as a group.
3. Upon completion of that activity, the students are to complete the academic task.

(The team that completes the course the fastest with the most correct answers wins.)

**Examples:**

**Station One:** Physical Activity: Teams are to perform "Over and Under" twice with a balled up piece of paper. ("Over and Under" works like this: Students stand in single file line and pass a ball over the head to the student behind him/her. The next student passes the ball through his/her legs to the student behind him/her.)  
Academic Task: Inequalities

**Station Two:** Physical Activity: Teams are to do imaginary jump rope 15 times each.  
Academic Task: Linear equations

**Station Three:** Physical Activity: Teams are to run through a twisting course of cones, beakers, or chairs.  
Academic Task: Squares and Squared Roots

**Station Four:** Physical Activity: Each member swings an imaginary hula hoop around his/her waist 15 turns.  
Academic Task: Cubes and cubed roots

**Variations:**

1. Play Mission Impossible music in the background while students are going through the obstacle course.
2. Have the students create physical tasks that can be done by teams.
3. Demonstrate the type of lever using body parts.
4. Do only one station per day to cut back on time.
5. Place a math worksheet at each station to supply the academic task.

**Name of Activity:**        **Operation Computation**

**Grade Level:**            6th - 7th

**Subject Area:**            Math

**North Carolina Standard Course of Study Objective Number(s):**

6th grade: 1.04 Develop fluency in addition, subtraction, multiplication, and division of non-negative rational numbers;

7th grade: 1.02 Develop fluency in addition, subtraction, multiplication, and division of rational numbers.

**Formation:**                Standing at desks

**Equipment:**                None

**Rules/Directions:**

1. Teacher writes four whole number operations on the board with corresponding physical activities.
  - Addition - play the drums
  - Subtraction - knee lifts
  - Multiplication - twist
  - Division - run in place
2. Teacher reads verbal expressions, emphasizing the word that indicates the fractions and decimals. Example:
  - The sum of 4 and 5, sum is emphasized.
  - The difference between 5 and 4, difference is emphasized.
  - The product of 4 and 5, product is emphasized.
  - The quotient of 20 and 5, quotient is emphasized.
  - Students begin activity that corresponds to the operation and continues until a new expression is called out, allowing 10 to 15 seconds for each expression.
3. Have students complete the equation, and state the answer.

**Variations:**

1. Use this activity to reinforce whole number operation terminology.
2. Use music to add interest.

*Name of Activity:* **Over and Under**

*Grade Level:* 7th

*Subject Area:* Math

*North Carolina Standard Course of Study Objective Number(s):*

1.02 Develop fluency in addition, subtraction, multiplication, and division of rational numbers;

1.03 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.

*Formation:* Lines of 5

*Equipment:* 10 paper balls per team, math problems or word problems from textbook

*Rules/Directions:*

1. Teams stand in single file line. Each team has 10 paper balls at the back of its line.
2. Teacher calls out word problem or a math problem (or write it on overhead) using, addition, subtraction, multiplication, or division.  
Example:  
➤  $(50 \div 10) + (2 \times 2) = 9$
3. Students figure out the answer to the problem.
4. Students pass the balls up the row in an overhead and under the legs style until the correct number of balls are at the front of the line. Pass only one ball at a time.
5. First team with the correct number gets one point. Students then pass the balls (in the same manner) to the back of the line in 30 seconds or less to get ready for the next problem.
6. Students perform 30 jumping jacks, march in place, or shoot jump shots while the teacher gets ready to call out the next word problem.

(Note: answer to the problem can be no higher than 10)

*Variation:*

1. Students may pass balls side to side instead of over or under.

*Name of Activity:* **Show me the Mean, Median, and Mode**

*Grade Level:* 7th

*Subject Area:* Math

*North Carolina Standard Course of Study Objective Number(s):*

4.01 Collect, organize, analyze, and display data (including box plots and histograms) to solve problems;

4.02 Calculate, use, and interpret the mean, median, mode, range, frequency distribution, and inter-quartile range for a set of data;

4.03 Describe how the mean, median, mode, range, frequency distribution, and inter-quartile range of a set of data affect its graph.

*Formation:* Standing at desk with partner

*Equipment:* Paper for calculations, ruler, calculator, and pencils

*Rules/Directions:*

1. Teacher designs problems that require students to calculate mean, median, mode, or range.
2. One student will complete the problem (while standing at desk).
3. The other student will continue movement selected until partner is finished with computation.

Possible movements include:

- Jog in place
  - Shoot imaginary baskets
  - Kick a soccer ball
  - Move right elbow to left knee, then left elbow to right knee (standing sit-ups)
  - Dancing
  - Play air guitar
  - Knee lifts
  - March in place
4. Students switch roles after each problem

*Variations:*

1. Problems can include students interpreting box plots, histograms, and frequency distributions.
2. One partner will shoot paper baskets for one minute while the other student counts how many are made. Teacher can then place data on the board and use student data to find mean, median, and mode.
3. Choose a different movement for every other problem.
4. Teacher should have problems on the board prior to students entering the classroom.
5. Great calculator activity.
6. Keep the data samples small so that students do not spent too much time on calculations.

*Name of Activity:*       **Sign Me Up**

*Grade Level:*           7th

*Subject Area:*         Math

*North Carolina Standard Course of Study Objective Number(s):*

1.02 Develop fluency in addition, subtraction, multiplication, and division of rational numbers.

*Formation:*             Students stand at desks.

*Equipment:*           None

*Rules/Directions:*

1. Teacher tells students to hop, march, or jog in place to indicate the sign of the answer to integer computation.
  - Hop up and down if the answer is positive
  - March in place if the answer is negative
  - Jog in place for 10 seconds if the answer is zero
2. Teacher calls out integer expressions such as, negative six times positive three.
3. Students hop, march, or jog in place for 10-15 seconds.

*Variations:*

1. Have students perform the same activity using absolute value
2. Use this activity to reinforce integer computation

*Name of Activity:*        **Size It Up**

*Grade Level:*            6th

*Subject Area:*            Math

*North Carolina Standard Course of Study Objective Number(s):*

2.02 Solve problems involving perimeter/circumference and area of plane figures

*Formation:*                Standing at desks

*Equipment:*              Piece of paper and pencil for every student

*Rules/Directions:*

1. Teacher calls out physical activity:
  - Jumping jacks
  - Jogging
  - Playing air guitar
  - Marching
  - Twisting
  - Knee lifts
  - Playing air drums
2. Students begin activity and continue for 15 seconds until the teacher calls out or displays a problem finding perimeter or area.
3. Students freeze and work the problems on a piece of paper.
4. After 10 or 15 seconds, teacher calls out a new activity.
5. Continue until all problems are worked.
6. As students cool down, teacher writes correct answers to the problems on the board while students check their answers.

*Variations:*

1. Same activity using dry erase boards and markers instead of paper and pencil.
2. Use this activity to reinforce formulas for finding area and perimeter of rectangles and squares.
3. Excellent way to review and reinforce formulas.
4. Have students continue exercise while teacher writes problem on board.

*Name of Activity:*       **Stop and Solve**

*Grade Level:*           7th - 8th

*Subject Area:*         Math

*North Carolina Standard Course of Study Objective Number(s):*

5.03 (7th grade) Use and evaluate algebraic expressions, linear equations or inequalities to solve problems;

5.03 (8th grade) Solve problems using linear equations and inequalities; justify symbolically and graphically.

*Formation:*             Standing at desks with partners

*Equipment:*            Piece of paper and pencil for every two students

*Rules/Directions:*

1. Teacher calls out physical activity:
  - Twisting
  - Jogging
  - Jumping Jacks
  - Knee lifts
  - Playing air guitar
2. Students begin activity and continue until the teacher writes an equation on the board and calls it out.
3. Students freeze and partners work together to try to solve the equation correctly on a piece of paper.
4. After 10 to 15 seconds, teacher calls out a new activity.
5. Continue until all equations are used.
6. As students cool down, teacher writes correct answers on the board and students check their work.

*Variations:*

1. Same physical activity, but students translate verbal expressions into algebraic expressions.
2. Use this activity to reinforce solving one-and-two step linear equations.

*Name of Activity:*       **Alphabet Soup**

*Grade Level:*           6th

*Subject Area:*          Miscellaneous

*North Carolina Standard Course of Study Objective Number(s):*

*Formation:*             Teams of 4

*Equipment:*            Alphabet blocks or scrabble tiles (2 sets) divided into 4 stations around the room, additional sets may be needed for vowels

*Rules/Directions:*

1. The object is for students to correctly spell the vocabulary word.
2. Teacher calls out a vocabulary word related to subject area.
3. One student from each team will go get one letter from a station and return to the group. All students remain moving (see Movement Bank) for the entire activity.
4. Students take turns getting letters until a team has spelled the word correctly.
5. The first team to spell the word correctly will earn a point.
6. Continue until all words have been spelled.

*Variations:*

1. Perform the activity as above and have teams make a sentence with the vocabulary words.
2. Make your own laminated alphabet cards.



**Name of Activity:** Crazy Questions  
**Grade Level:** 6th - 8th  
**Subject Area:** Miscellaneous  
**North Carolina Standard Course of Study Objective Number(s):**  
**Formation:** Four teams  
**Equipment:** None

**Rules/Directions:**

1. Students group together into 4 teams (easiest way may be to have them group together by rows).
2. The teacher selects a list of vocabulary words or a set of questions from the end of a chapter.
3. The students must complete a series of movements to receive each question.
4. When each student in a group has completed the assigned movement they must sit down and raise their hands to receive each question.
5. The teacher will then approach the group to give them the next question.
  - a. To receive the first question, each student in the group must jump to the sky and slap the floor with their hand. Repeat 5 times.
  - b. To receive the second question, the students must hop on one foot while turning in a circle 10 times.
  - c. To receive the third question, students must run in place for 30 seconds.
  - d. To receive the fourth question, students must do imaginary jump rope as fast as possible for 10 seconds.
  - e. To receive the fifth question, students must complete all previous movements.

**Variation:**

1. This activity can be used for sequencing, listening skills, auditory procession, and multiple intelligences.

*Name of Activity:* **Everybody is a Star**  
*Grade Level:* 6th  
*Subject Area:* Miscellaneous  
*North Carolina Standard Course of Study Objective Number(s):*  
*Formation:* Walking around the classroom  
*Equipment:* Pen and paper for the Journalist group

*Rules/Directions:*

1. Each student writes 3-5 questions a journalist would ask a Celebrity/ Super Star and identifies one Super Star.
2. The class is divided into two groups: Journalists and Super Stars.
3. The journalists have 5 minutes to interview as many Super Stars as they possibly can, asking only the three questions they wrote down.
4. The Super Stars can never directly say their name or exactly what it is that they do. The Super Star group must constantly be walking because celebrities are very busy.
5. The journalists try to guess who the Super Stars are based on the answers to their question.
6. After 5 minutes has lapsed the Super Stars reveal who they are and the journalists check to see if their guesses were correct.
7. Switch roles.

*Variation:*

1. Journalists write an article about Super Stars. Super Stars write a reflective entry about their interviews. Incorporate writing techniques like persuasive writing and inferences. Share writing with the entire class.

*Name of Activity:* **Have a ball**

*Grade Level:* 6th - 8th

*Subject Area:* Miscellaneous

*North Carolina Standard Course of Study Objective Number(s):*

*Formation:* Students sitting at desks

*Equipment:* Each student should have a scrap piece of paper and make a ball

*Rules/Directions:*

1. Each student should wad up a piece of paper to make a ball. Use the piece of paper for the following exercises:
  - Place the ball on the feet (feet together) while seated, repeatedly toss up and catch the ball with the top of the feet (like hackey sack).
  - Set the ball on elbow. Flip the ball into the air and catch it with the hand on the same side.
  - Lift the feet off the floor (feet together) and rotate the ball over and under the legs using your hands.
  - Toss the ball overhead and catch behind back.
  - Lift the feet (feet slightly apart) and weave the ball between the left and right leg (such as a figure eight).
  - Toss the ball from behind the back and catch in the front.
  - Circle waist while standing.
2. This activity will strengthen the abdominal muscles and quadriceps.

*Variation:*

1. Allow each student to shoot the ball into the trashcan at the end.

*Name of Activity:*       **Hot Tamale**

*Grade Level:*           6th - 8th

*Subject Area:*         Miscellaneous

*North Carolina Standard Course of Study Objective Number(s):*

*Formation:*             Beside desks

*Equipment:*            None

*Rules/Directions:*

1. Write each direction and corresponding activity on the board or overhead to make it easier for the students to follow.
  - Move backwards - back stroke (swimming motion)
  - Move forward - march in place
  - Move to either side - side stretch in the direction of the hot tamale
  - Up higher - climbing ladder motion
  - Down lower - squats
  - Within one foot of the tamale - students pretend they are stepping on hot coals (in place).
2. One student exits the classroom.
3. The rest of the class watches the teacher hide the "hot tamale" (can be any object) somewhere in the classroom.
4. The student who exited the classroom re-enters.
5. The rest of the class tries to guide him/her to the hidden tamale by performing various physical activities, with each activity corresponding to a different direction. Students are not allowed to talk.
6. Once the student locates the hidden "hot tamale", another student is selected to exit the classroom and the "hot tamale" is hidden in another location so that the game can be repeated.

**Name of Activity:** **I'm A Student and You're a Student Too!**  
**Grade Level:** 6th - 8th  
**Subject Area:** Miscellaneous  
**North Carolina Standard Course of Study Objective Number(s):**  
**Formation:** Standing at desks or in a circle  
**Equipment:** None (teacher may decide to use a small ball or bean bag)

**Rules/Directions:**

1. Students stand in a circle or at desks and march in place.
2. Teacher selects a student to begin the game by either pointing to or tossing a small ball to the student.
3. The student begins with the line "I'm a student and you're a student too if...."
4. The student fills in the end of this statement with something characteristic of them that other students may have in common.  
Example: "I'm a student and you're a student too if you have on tennis shoes" or "I'm a student and you're a student too if you like to play basketball."
5. All students who share this trait perform an activity such as jumping into the air 3 times or walk to the front of the classroom and switch places with another student that shares the specified characteristic, while all other students continue to march in place.
6. The teacher then selects another student to continue the game.

**Variation:**

1. Instead of using the word student in the working phrase, insert the name of the school's mascot.  
e.g., I'm a Pirate and you're a Pirate too if..."

**Name of Activity:** Sports on the Move  
**Grade Level:** 6th- 8th  
**Subject Area:** Miscellaneous  
**North Carolina Standard Course of Study Objective Number(s):**  
**Formation:** Standing at desk  
**Equipment:** None

**Rules/Directions:**

1. Teacher will say a sport and movement and students will repeat that movement for about 30 seconds until a new movement is stated.

**Examples:**

- Basketball: dribble with fingertips; dribble through legs; dribble around back; jump shot and follow through; bounce pass; chest pass; overhead pass; defensive slide to front and back to start position
- Soccer: shot on goal (practice with both feet); inside of foot pass; outside of foot pass; long banana kick; juggle imaginary soccer ball; trap ball with thigh; trap ball with feet
- Baseball or softball: swing a bat; windup and pitch; field a ground ball; catch a fly ball; play imaginary catch
- Tennis: forehand; backhand; serve; volley
- Volleyball: serve, set, dig, spike
- Football: quarterback long pass; short pass; catch imaginary ball; kick field goal; punt; catch a punt; block
- Golf swing
- Drive a NASCAR
- Lacrosse
- Tae Kwon Do

**Variations:**

1. Ask students to name the sport and movement.
2. Tell students that mental practice and making correct fundamental movements without the equipment can improve performance.

*Name of Activity:*       **What's My Job?**  
*Grade Level:*           6th - 8th  
*Subject Area:*           Miscellaneous  
*North Carolina Standard Course of Study Objective Number(s):*  
*Formation:*             Partners standing at desk  
*Equipment:*             Pencil and paper

*Rules/Directions:*

1. Students group into pairs at their desks.
2. Partners face each other (one facing the board and the other facing the back of the room).
3. The teacher writes a series of professions on the board which could include:
  - Teacher
  - Basketball Player
  - Hockey Player
  - Airplane Pilot
  - Doctor
  - Fireman
  - Chef
  - Truck Driver
4. The student facing the board must act out the entire list in 2 minutes while the student facing the back of the classroom attempts to write down which profession his/her partner is acting out.
5. After the 2 minutes has ended, the students facing the back of the classroom turn around and see if their lists match that on the chalkboard.
6. Students in each group switch places (the writer becomes the actor and visa versa).

Note: entire game could be played silently

*Variation:*

1. Create a different list of professions for each group.

*Name of Activity:*        **World's Strongest Student**  
*Grade Level:*            6th - 8th  
*Subject Area:*            Miscellaneous  
*North Carolina Standard Course of Study Objective Number(s):*  
*Formation:*              Standing at desks  
*Equipment:*              None

*Rules/Directions:*

1. Have students imitate activities that competitors in the "Worlds Strongest Man" competition undertake. Perform each activity for 30 seconds.
  - Chain Drag (walking backwards and pulling)
  - Car Lift
  - Train Push (walking forward and pushing)
  - Anchor Carry (walking forward and pulling)
  - Pole Flip (pretend to toss a small tree trunk as far as you can)
  - Iron Cross (hold arms out to sides holding great weights)
  - Stone Wall (picking up heavy stones from the ground and stacking them on top of a wall)
  - Dead Lift (competitors squat and lift a barrel of rocks with increasing weight).
2. Repeat the entire sequence.

*Variation:*

1. Teacher may need to explain the activities to the students before the activity starts.



# Energizers Movement Bank

- 1. Loco motor (traveling forward, back, right, left)**
  - a. Walk
  - b. March
  - c. Jog
  - d. Step touch
  - e. Walking lunge
  - f. Skip
  - g. Grapevines
  - h. Slide
  - i. Gallop
  - j. Hop/jump
  
- 2. Lifts (stationary or traveling)**
  - a. Knee lifts - hands gently touching opposite knee
  - b. Kicks- front, cross and side
  - c. Soccer kick
  - d. Hamstring curl
  - e. Heels- front and side, back
  - f. Kick backs
  
- 3. Hops (stationary or traveling)**
  - a. Bunny hop
  - b. Basketball shoot
  - c. Jump rope
  - d. Boxing
  - e. Ski-stride
  - f. Twist- single/double
  - g. Dance steps- mamba, cha cha, chug, pivot turns
  
- 4. Power (stationary)**
  - a. Jumping jacks
  - b. Lunges
  - c. Squats