ove for Thought

Integrated Physical Activities for Learning in the Elementary School Classroom

“Move for Thought”

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The **"Move for Thought"** Kit can be used to assist in meeting your Healthy Kids Act physical activity minutes and your Healthier US School Challenge physical education minutes (if planned in partnership with the physical education teacher).

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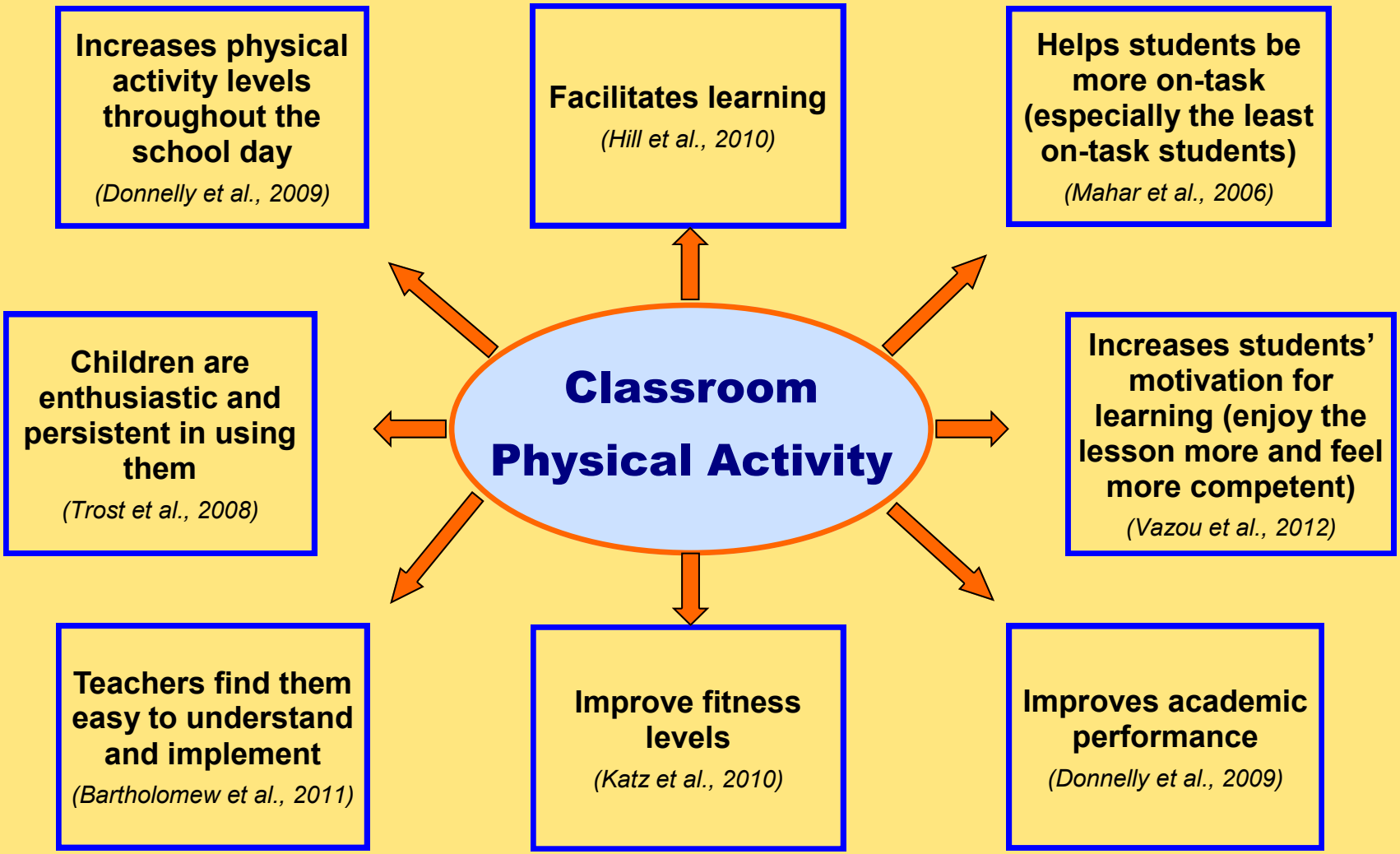
The “**Move for Thought**” Kit was developed by Spyridoula Vazou, Ph.D. (Department of Kinesiology, Iowa State University). Dr. Vazou teaches Elementary PE and her research focus is on motivating children to be physically active inside and outside the classroom.

To print copies of the kit, the electronic version can be found at: http://educateiowa.gov/index.php?option=com_content&view=article&id=2718:move-for-thought&catid=440:nutrition-program-learning-tools&Itemid=446

Why include physical activities in the academic classroom?



A few words about the activities…

►All activities were developed with the goal of being easy and safe to apply in a classroom with limited space, equipment, and preparation time.

►All activities were developed to be integrated with the content of **ANY** subject area. The teacher will only need to prepare the academic content that will be used for each activity, e.g., on flashcards, a whiteboard, or clipboards. Modification of the activities to fit the teacher's needs is encouraged.

►All activities target aerobic fitness to some extent. In other words, on average, they are physical activities of moderate intensity (such as brisk walking).

►All activities were developed with the goal of promoting intrinsic motivation *(e.g., do them because they are fun and help me learn and improve)* as well as perceptions of self–oriented competence *(i.e., I feel I can do them correctly without worrying about how everyone else is doing)* for both physical activity and academic learning in the classroom. Such an approach may help children adopt a lifelong physically active lifestyle, as well as a continuous desire for learning.

►The "Move for Thought" kit was not developed as a replacement for physical education. It was designed to help children increase their physical activity levels during the school day, as well as to help teachers facilitate learning and academic achievement.

Teaching Tips

Before the beginning of each activity, a short warm-up will prepare the children both physically and mentally. You may do:

► stretching poses (standing or sitting on a chair), such as extend arms overhead and sideways, twist your body

► whole-body routines, such as march in place, jog in place with heels back or knees up

► strength activities, such as bending knees, extend legs to the sides, arm circles to the sides

A short cool-down (such as a few deep breaths and stretching poses) will also help the children have an easier transition back to their desks.

Try to use the activities on a daily basis, based on your comfort level. Target about **10 minutes** during a lesson to implement one activity. Start with easier versions of the activities and make them more challenging as students learn them.

Additional online resources can be found at: http://www.emc.cmich.edu/BrainBreaks/ (Brain Breaks)
http://www.ncpe4me.com/energizers.html (Energizers)
http://schools.nyc.gov/Academics/FitnessandHealth/MoveImprove/default.htm (Move to Improve)
http://www.jamschoolprogram.com (JAM; Just-a-Minute)

What I should know about physical activities

►There are different ways a body can move, from one place to another, or in one spot. All the ways the body can move are called fundamental motor skills. The skills that are required in order to move from one place to another are called “locomotor” skills. All 8 basic locomotor skills plus additional animal moves are described in the table that follows.

►A body can also move from a relatively stable position (nonlocomotor skills). Examples include: bending and stretching, pushing and pulling, twisting, shaking, and circling body parts.

►Lastly, the skills that require manipulation of an object with some part of the body (e.g., throwing, catching, rolling, dribbling, striking) are called “manipulative” and are the most complex and often most difficult for children to learn.

►To increase the “movement vocabulary” and challenge children, you can change the *space* (self and general space), the *directions* (e.g., forward, backward, sideways), the *levels* (high, medium, low), the *pathways* (e.g., straight, curved, zigzag), the *speed* (slow, fast), and the *relationships* (e.g., to others, to objects – move over, under, around, on, off, near, between, mirroring).

►By changing the “movement vocabulary,” you can have a wide variety of modifications on the same activity that will keep the students engaged and will help them improve their motor skills.

►The fundamental motor skills are the foundation for a child’s development. A solid foundation can help children enjoy physical activities and adopt a lifelong physically active lifestyle.

Some examples of how we can move

Walking	One foot is always in contact with the ground.
Marching	Is a rhythmic walk accompanied by lifted knees and swinging arms.
Running	Varies from slow jog to sprint. Both feet are off the ground briefly.
Jumping	Is taking off from 2 feet and landing on 2 feet with bent knees.
Galloping	Step forward with the other foot following. The same foot always leads.
Sliding	Is similar to galloping but the direction is sideways. Feet don't cross.
Hopping	Is done from one foot to the same foot. Arms help balance.
Leaping	From one foot to the ball of the other foot with a springing action.
Skipping	A combination of a long step with a short hop, alternating the lead foot.
Bear walking	Lumbering with hand and foot on the same side going forward together.
Crab walking	On the hands and feet with stomachs pointed toward the sky.
Rabbit jumping	Transfer weight from feet to both arms and jump with both feet close to the arms.
Frog jumping	Deep jumps from 2 feet to 2 feet. Jump high and then squat to the floor.
Kangaroo jumping	Small consecutive jumps while holding hands near chest.
Imaginary walking	Walk like a robot, an earthquake, on ice, on fire, etc.

Table with activity characteristics

Activity	In limited space	In general space	With a group	Individually	Low to moderate intensity	Moderate to vigorous intensity	Equipment
1. Curious Ball		x	x		x		Ball
2. Move Around		x		x		x	Flash cards
3. To the Wall		x	x	x		x	Chalk or tape (optional)
4. Red Light, green Light	x			x	x		None
5. Over and Under		x	x			x	Balls or beanbags
6. Jump in Hoops	x		x		x		Hula hoops
7. Animal Track		x	x			x	Flash cards, boxes (optional)
8. Jump the Answer	x			x		x	Poly spots, tape (optional)
9. Messed-up Train	x		x		x		Flash cards, chalk
10. Find your Pair		x	x		x		Flash cards

Move for Thought

ACTIVITIES



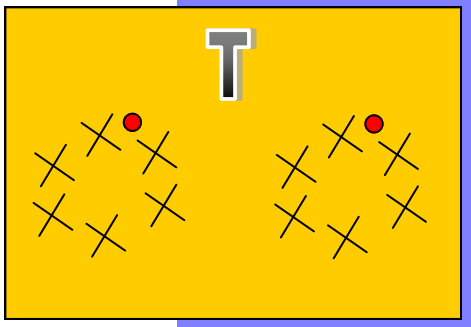

College students demonstrate and practice the "Move for Thought" activities.

MISSION: 1. Curious Ball

OBJECTIVES:
Students will be able to

- successfully pass and catch a ball with both hands
- demonstrate understanding of space awareness and effort (quick reaction and movement time)

ORGANIZATION
Materials: ball (s) numbered from 1 to *N*
Set up: small groups of children (6-8) are placed in a circle formation.



Each group has a ball that has numbers on it. Each number corresponds to a question that is written on the board (or a list that is read to the group by a helper.) A student passes the ball to another student. The one who catches the ball looks at the number that is under the left thumb, reads (or listens to) the question and answers. Next, he/she passes the ball to another student who again answers the question that corresponds to the number under the left thumb.

VARIATIONS FOR YOUNGER CHILDREN:
►Arrange the children in two lines facing each other and ask them to pass the ball to the child across from them . ►In the circle formation, the teacher may stand in the center of the circle and pass the ball to one child who will answer the question and pass the ball back to the teacher. ►Passing can be replaced with rolling on the floor, and balls can be replaced with beanbags. Changing the size of the ball can also modify the difficulty level of the activity. Smaller balls are harder to catch. ►To increase the energy expenditure, after returning the ball, children can run around, outside the circle, and return to their initial position.

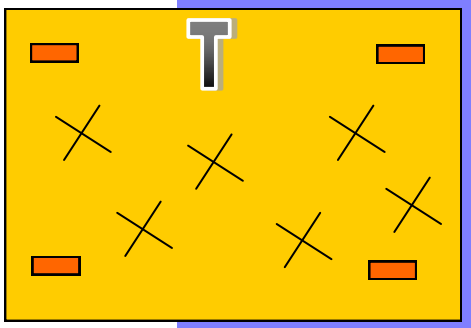
EXTRA TIPS: ► To challenge students, add the action “run where you pass the ball”. After passing the ball to X, I run and stand where X was standing. X, after answering the question, passes the ball to Y and runs to stands where Y was standing. Y continues by running towards the child who receives the ball, and so on. ►Timing the activity until all children in the circle have passed the ball successfully is another challenge for the children. Compare their time with their previous performance and not with the time of the other groups. Repeat a few times and find the fastest time. ► Useful rules & cues: don’t pass the ball to the child next to you; don’t pass too hard; don’t pass to the same child two consecutive times; make sure the receiver watches you before you pass.

MISSION: 2. Move Around

OBJECTIVES:
Students will be able to
- move in general space avoiding others
- successfully use 2 different locomotor skills in general space

ORGANIZATION
Materials: flash cards, music (optional)
Set up: Scattered formation

Students are given a “move” (e.g., skipping). Flash cards with questions are placed in piles on designated areas. On a “go” signal, students move around the space. On a “Stop” signal, they pick up a card from a pile closest to them and continue doing the “move” in place. The teacher moves around and checks the answers (verbally or written). Next, cards are placed back in the stacks and a new “move” is assigned. On signal, students collect another card, continue the “move” and answer the question until the next signal.



VARIATIONS FOR YOUNGER CHILDREN:
►Ask children to extend their arms while moving around as if they are in a bubble. Emphasize that they don’t want to pop their bubble. ►Skipping is a skill that some younger children may have difficulties in performing. Start with easier moves, such as walking, sliding or galloping, at a slow speed. ►Have flash cards with different colors and write one problem on all the cards with the same color. Ask the children every time to collect a card with a different color. End the game when all different cards are collected.

EXTRA TIPS: ►To avoid collision, place the cards in several different spots or scattered around the classroom. ►Ask students to place the cards facing down (for random selection of cards). ►Give the students the option to choose among 2 or 3 different “moves”. ►Emphasize keeping the head up to avoid others. ►Challenge them to modify the speed they move but still keeping their personal space intact. ►Instead of a verbal signal, music can be used. When music starts students “move” and when it stops they take a card.

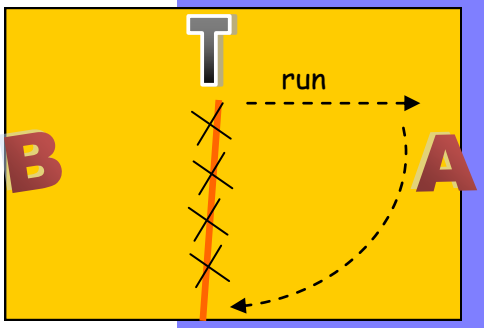
MISSION: 3. To the Wall

OBJECTIVES:
Students will be able to

- show readiness and demonstrate understanding of reaction time
- use at least two different locomotor skills in specific pathways

ORGANIZATION
Materials: a list with questions, chalk/tape
Set up: draw a line with chalk, tape or use an existing line in the classroom

The teacher explains what A and B represents. For example, A = odd number and B = even number, in a math activity; A = noun and B = verb, in Language Arts; or A = lake and B = river, in Social Studies. The teacher asks a question to the first child in line. The children then runs to the side of the wall (A or B) based on their answer. Teacher will confirm if answer is correct and then the child goes to the end of the line. The activity repeats with the next child in line, using a new question.



VARIATIONS FOR YOUNGER CHILDREN:
►Statement can be used instead of questions (such as true or false; greater than or less than) or show two pictures with one correct and one wrong answer. ►For every question or statement, all children simultaneously move to the correct wall to provide the answer and back to the line. ►Moves of slower speed, like walking, galloping or skipping can be used instead of running.

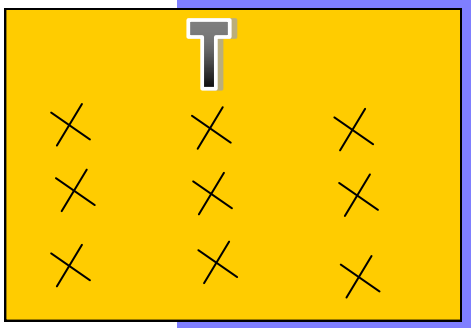
EXTRA TIPS: ►The first child in line is the leader and may select the way of moving (e.g., instead of running, jumping or skipping). The A new leader (+movement) is set every 10th child. ►You can set some group goals, like "how many students can complete the activity within one minute", and compare the group performance with previous ones. The next child starts when the preceded child touches the wall. ►To maximize participation, (a) children standing in line can perform an assigned movement, such as squats or jumps over the line, (b) if an assistant is available, two lines facing toward the opposite walls can play simultaneously. ►To avoid collision, put a mark as a start point and let the child run to you in order to get the question (that way every child doesn't feel embarrassed if the answer is wrong).

MISSION: 4. Red Light, Green Light

OBJECTIVES:
Students will be able to

- successfully balance after a movement (hold it for 3 sec)
- use their imagination and do various shapes in a balanced position

ORGANIZATION
Materials: none
Set up: standing next to their desk or scattered in open space



The teacher says what "red light" might be, such as, a noun in Language Arts; an even number, in Math; a false statement in Social Studies. Children do the assigned movement as quickly as possible (e.g., jog in place, knees up, jumping jacks) and the teacher reads the passage. When the students hear the "red light" word they need to stand very still in a balanced shape of their choice. With the signal "green light" children move again until they hear the next "red light" word from the teacher.

VARIATIONS FOR YOUNGER CHILDREN:
►Use a visual signal (e.g., a signal with the "red light" word) when reading the passage. A warning before the "red light" word may be also helpful to hold their attention. ►At the first attempts, give specific instructions for the shapes. For example, "next time, can you make a tall and narrow shape?", or "can you make a shape when balancing in 3 body parts?" ►Before the beginning of the activity, ask some children to demonstrate a successfully balanced shaped and initiate a short discussion about balance.

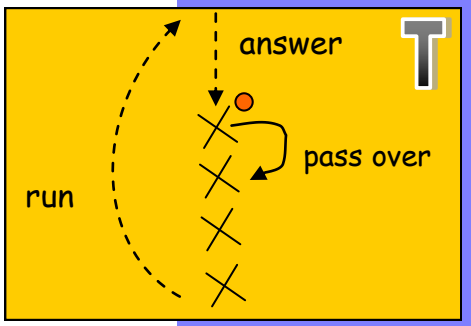
EXTRA TIPS: ►A useful cue for balance is "squeeze your muscles" and "hold it for 3 sec" ►Give the students the option to choose among 2 or 3 different movements. ►Praise students' creativity and challenge them to find unusual shapes to balance. Shapes with a partner increase the difficulty of the activity and challenges them to be more creative. ►Make sure every child has enough personal space to avoid collision.

MISSION: 5. Over and Under

OBJECTIVES:
Students will be able to

- manipulate an object in at least two different directions
- practice lateral movements with body and hands
- work on flexibility and balance

ORGANIZATION
Materials: balls
Set up: A group of children line up with legs shoulder-width apart.



The first child in line bends backwards and passes the ball over the head to the child behind him/her. The next child passes the ball through his/her legs to the next child. The last child in line goes to the board, picks up a card with a question and places it in the correct bucket or pile (either true or false). The child then goes to the front of line and starts the activity over again. Repeat until all children have answered one (or more questions). After the activity is completed as a class, go through the buckets or piles and decide if the cards were placed correctly.

VARIATIONS FOR YOUNGER CHILDREN:

►Instead of balls, beanbags, or small paper balls can be used. ►To make the activity more challenging, ask the child who carries the beanbag to the front of the line, to walk while balancing it on the head. ►Use only one pattern of movement each time. For example, everybody passes the beanbag over the head. ►Create more lines with 3-4 children, shaped in a circle around you and verbally state the question once the children come close to you.

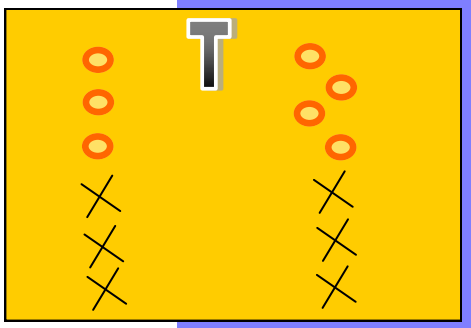
EXTRA TIPS: ►You can set some team goals, such as "Let's see, as a team, how fast you will finish the activity. Next time, can we try to be a little faster?" ►For variety, modify the passing pattern. Examples of more advanced patterns are (a) twist the body and pass it with two hands in a standing position (b) circles around the legs in Figure 8 and pass in between the legs, (c) around the waist making a full circle and pass over the head. ►Instead of running to the board, children can move using different locomotor skills, such as jumping, crab-walking (while balancing the ball on the stomach). ►Put a mark on the floor for a starting point.

MISSION: 6. Jump in Hoops

OBJECTIVES:
Students will be able to

- demonstrate hopping (one foot) with control five times on right and left foot.
- jump with two feet and land quietly without losing balance

ORGANIZATION
Materials: hula-hoops
Set up: Lined up in groups of four to six children



The teacher places on the floor as many hoops as the categories he/she has selected (for example, multiply by 1,10,100,1000 in math; simple, comparative, superlative form of adjective in English Arts; people, places and environments in Social Studies). Each child needs to name one item of the category while jumping from one hula hoop to the other. While inside a hoop, the child needs to hop for 5 times on one leg. Switch legs after every jump. After completing the path, the child goes back to the end of the line.

VARIATIONS FOR YOUNGER CHILDREN:
► Ask them to bend knees, swing arms and land as quietly as they can. ►Use smaller hoops or poly spots to decrease the distance between the jumps. With the poly spots you may have more space available to create smaller groups of children (three to four). ►Start with jumping (two feet) and only once all of them are successful, make the activity more challenging with more complex movements.

EXTRA TIPS: ►Ask children not to repeat an item that has already been said. ►Distribute answer sheets and ask the child who is last in the line to write down the answers of the preceding child. ►Challenge them to find different ways to travel over the hoops, such as, in different directions (e.g., forward, backward, sideways), patterns (e.g., jump, jump, hop), locomotor skills (e.g., slide, leap, skip), pathways (e.g., zigzag, circle) or distances (placing the hoops further away or closer). ►Challenge them as a group to find as many answers as possible. Switch groups regularly. ►Vary the size of the groups based on all the possible items in each category.

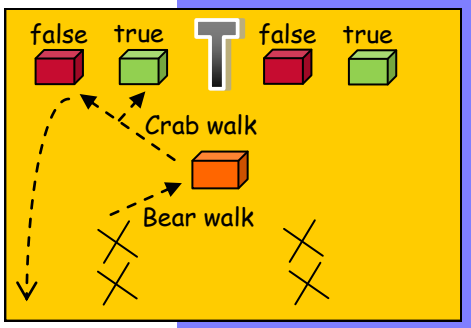
MISSION: 7. Animal Track

OBJECTIVES:
Students will be able to

- demonstrate at least two different animal moves
- use their imagination and creative expression
- improve upper and/or lower body strength and coordination

ORGANIZATION
Materials: flash cards & boxes (optional)
Set up: lined up in small groups (based on space)

The first child in each line bear-walks to the box with the statements, selects a card and then crab-walks to the true and false boxes. The card is transferred to the correct box by being placed on the child's belly. Next, the child goes to the end of the line with another assigned move (e.g., frog jump, galloping, or skipping) while the next child starts. The teacher checks the answers throughout the activity.



VARIATIONS FOR YOUNGER CHILDREN:
Use one pattern of movement throughout the path, or combine one animal walk with a simple locomotor skill (such as walking, or galloping). ►Use pictures with the content you want younger children to practice. ►Before the beginning of the activity, ask children to demonstrate different animal walks (e.g. penguins, elephant, kangaroo). Let them choose the moves they want to include.

EXTRA TIPS: ►Pencils can be placed next to the problem box, for students to write the correct answer if the given answer is incorrect. ►To make it more challenging, the activity can be timed and the goal may be to compete the time of the previous performance, as a team. Time, as well as number of correct answers can be counted. ►Once the activity is completed, ask the teams to score their box with the correct and wrong answers. ►Emphasize "flat stomachs" during crab walk to balance the cards, and "keep their head up" during bear walks. ►To increase safety, make sure the moving paths for each group are free from obstacles and children have enough space to move. ►Put a mark on the floor for the starting point.

MISSION: 8. Jump the Answer

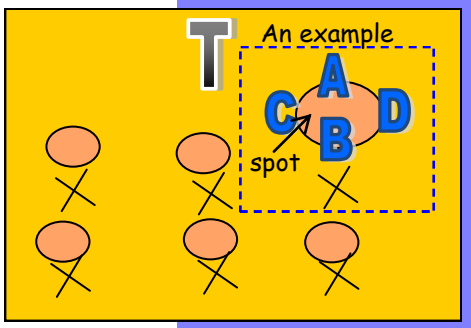
OBJECTIVES:
Students will be able to

- perform an aerobic routine without stopping, for at least X sec*
- jump with two feet forward, backward and on the sides

* set goals depending on their age and fitness level

ORGANIZATION
Materials: poly-spots, or tape to create the signs.
Set up: standing on a spot next to their desk.

Pass out poly-spots for each student or use tape to create a spot for each student. The teacher has created questions with four possible answers for each question. Children need to jump with two feet over the spot on the correct side (forward = A, backward = B, left =C, and right = D) and continue jumping in place for 10 (or more) times. Next, children need to crisscross jump while waiting for the teacher to go around and check each child's answer. After the answers have been checked, the teacher asks the next question.



VARIATIONS FOR YOUNGER CHILDREN:
►Use visual aids with the answers. ►Instead of four, two possible answers or two kind of statements (e.g., true-false, positive-negative) can be provided. Children can jump continuously forward and backward for option A and right and left for option B. ►Provide frequent short breaks for stretching or deep breathing. Aerobic capacity is limited in younger children. ►Emphasize soft landing by bending their knees.

EXTRA TIPS: ►You may use tape to create a personal grid for each child. ►To make it more challenging, children can use their chairs. Start by standing in front of the chair, bring arms back and hold the sides of the chair, support your weight with your arms and jump. ►Let children choose among different moves (of varying intensity level, e.g., march, criss-cross or tap toes), while waiting for the next question. ►You may distribute different lists with questions in the class and ask them to work on their own by jumping the answer before they write it down on their answer sheet. Whole children practice you move around and check the answers.

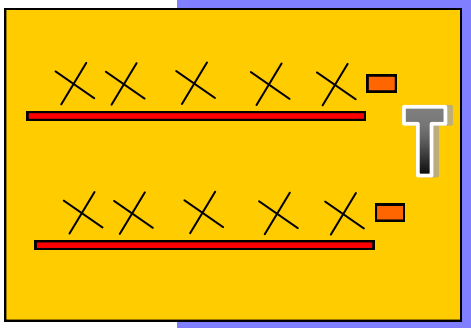
MISSION: 9. Messed up Train

OBJECTIVES:
Students will be able to

- cooperate with at least three members of their team in finding a solution to a problem
- do at least two successful balances while using imagination

ORGANIZATION
Materials: flash-cards, chalk/tape
Set up: draw a line with chalk, tape or use an existing line in the classroom

Children are lined up and are asked to have at least one foot on the line. The teacher has created stack of cards, with one letter in a card. Equal number of children and cards should be in each line. The teacher gives the child first in line a stack of cards. The child takes one card and passing rest back to the children behind them in the line. Children, without talking, need to find the correct sequence (e.g. spelling of a word or order of numbers, largest to smallest) always leaving at least one foot on the line.



VARIATIONS FOR YOUNGER CHILDREN:
►To increase the available space that children will have to move, either use squares or create an area (shaped by two parallel lines) inside of which children can move. ►Use shorter words (less cards) with younger children and guide them (by asking questions) to find the solution. ►You may write the content of the cards (in the same order as distributed) on the board for a visual aid.

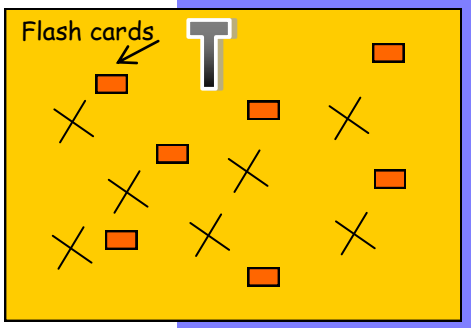
EXTRA TIPS: ►Children are not allowed to pass their card to another child. Instead, they need to move with their card to the correct position. ►To make it more challenging, you may want to use specific time limits in order to find the solution and be placed in the correct spot on the line. ►Change the groups often. ►To increase the difficulty level, the cards may contain questions or math problems, the answers of which need to be placed in the correct order (from smaller to bigger, or in an alphabetical order). ►Create lines of different heights (e.g. using low balance beams) to increase the difficulty level of the activity.

MISSION: 10. Find your Pair

OBJECTIVES:
Students will be able to

- successfully demonstrate at least one shape with a partner
- move around while avoiding others
- cooperate well with all classmates

ORGANIZATION
Materials: flashcards; half with questions & half with answers
Set up: scattered formation



The teacher randomly places the cards around the classroom, on desks, chairs or on the floor (on spots to avoid fallings). With the signal, all children move around the classroom with a pre-assigned move (e.g., skipping). With a second signal, all children collect the card closest to them and, without talking, need to find the matching card. Once the children have found their pair, they continue the pre-assigned activity (e.g. skipping) with their partner. The teacher moves around and checks the paired cards. Next, cards are placed back (facing down) and with a new signal children start moving around.

VARIATIONS FOR YOUNGER CHILDREN:
►Use two different colors of flashcards, one for the questions and one for the answers. ►When paired, children can do some matching and mirroring activities, such as, while facing each other, partner 1 makes a shape and partner 2 tries to copy it exactly. Mirroring means that partner 2 makes the same shape, only opposite (like looking in a mirror). ►Partner challenges could also be used, such as: (1) facing each other, arms on shoulders, try to slide to the side and back, (2) facing each other, make a bridge with your arms. Matching is the easiest activity and partner balance is the most advanced.

EXTRA TIPS: ►Examples of partner challenges are: (1) from sitting position with backs together and arms hooked at the elbows, try to sit down together and standup, by pressing the backs together (2) facing each other with hands joined, lift both arms on one side and rotate bodies by turning in the direction of the lifted arms, and return to the starting position. ►Encourage them to find their own partner challenge, and matching/mirroring shapes or moves. Give the option to choose between a matching shape, a mirroring shape (without a body contact) and a partner challenge (with body contact).

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Note: The pictures were taken during a University course that integrated physical activities with academic subjects in 2009. The pictures were taken by Dr. Spyridoula Vazou, who developed and taught the course, with permission from all students.