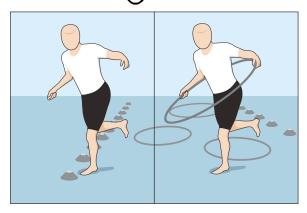
Hula Relay Personal Bubbles



Math
Recharge
Respect
Safety
Spatial awareness with others

Movement Intention:

Improve Spatial Awareness Within and Around the body (Developing Awareness in Self and Attention Inside)*
Integrate moving of spiral rotation
Develop respect for others
Use of math skills help in daily events

Equipment

- Hula hoops (8 of the same color per team), 5 8 participants in a team, stop watch
- Cones

Prepare

- o If you are doing the series of lessons: Young at Heart PE ask the participants what they remember from the last time you met
- o Drink Water:
 - Optional: see Muscle Testing lesson to help test muscle to see if they need water
 - Before drinking water to hydrate
 - Ask the participant to notice if they feel thirsty
 - Ask them to remember how it feels to be thirsty so they can drink water when they need to through out the day

- (Optional but highly recommended: teach Home Breath & Personal Bubbles and Pancake Body lessons before Hula Relay lesson)*
- Set up an obstacle course of cones and hula hoops, as in diagram below (if there is more than one team, set up the course with a different color for each team):



- For Example: Set-up for 19 22 participants
 - Line up hula hoops of the same color in rows (3 or more students to a team)
 - Space hula hoops in rows approximately 1 foot apart
 - Space rows approximately 1 foot apart
- Divide students into teams and ask them to line up in front of the obstacle course
 - Assign one color to each team; they will run around that color of hoop
 - Place same color dots for the starting line for each team
 - Give the same color hula hoops to each team
 - Each team lines up in front of their team's color of hula hoops
 - Optional but HIGHLY recommended to teach Home Breath and Personal Bubbles lesson here and follow with Pancake Body

Go! Hula Relay Game

- To start the game say, "READY, GET SET, GO!" The first participant from each team begins running
 - Object of the game is to run around, or hop over, all the same color hula hoops of each team:
 - Participants go to the end of the obstacle course and back to the starting line, without bumping into members of the other teams
 - When finished, the participant tags the next team member and sits down at the back of the line
 - Optional but recommended: if they bump or touch the hoops, they have to step out of the game, to the side, and do the **Home Breath**; the intention of the **Home Breath** is to calm and center themselves so they are more aware of where they are in space (see Home Breath lesson)

- Repeat, but this time, once they reach the end of the obstacle course, the participants should run straight back to the starting line as fast as they can
 - This gives them more exercise and increases the excitement
- o Increase the challenge: instruct them to run to the last hula hoop and back, but without touching any hula hoops
 - Or all the team members, starting with the first person in line to the last, begin running, one after another, through the hula hoop obstacle course to the end and back, without bumping into each other
 - If you have extra hula hoops not used in the obstacle course for participants running: give each participant a hula hoop to hold (see illustration above) while going through the course
 - Optional but recommended: If they touch the hoops or someone else, they
 have to go back and do Home Breath and, when calm, move to the head of
 the line to try again; or if they touch the hoops or someone else, they have to
 forfeit their turn and go back in line and try again
- There are no "Winners," but if you time the participants, they can add up their times and see a real-life application of math.
 - "How long did it take for the entire class to run the Hula Relay? Let's add up all our times.
 - Team members must remember their time (for example, 30 seconds for the first team finished, 32 seconds for the second team, and so on); then let each team add all the numbers together for all the teams and give the total when asked
 - If you want to have a different type of math lesson (multiplication, for example), give the teams numbers to remember:
 - One team gets 2, one team gets 3, and one team get 4: "What is 2 (first team's score) x 3 (second team's score)? Yes, 6. Okay, now what is 4 (third team's score) x 6? Yes, 24."
 - Or give the teams numbers you want them to practice, for example all the teams get 6: "Each team gets a score of 6, and we have 3 teams, so what is 6 x 3?" Ask each team for their answer
 - To practice division at the beginning of the game, let the participants help with creating the teams: "Okay, we have 24 participants. If we have 4 teams, how many participants will be on each team? And if we have 3 teams?"

Closing

- Ask how they can apply something they learned in this game to the rest of the day:
 - For example, being aware of each other's personal space on the playground, at home, or in the classroom
 - How another person's personal space can be respected by keeping quiet when that person is talking (see Listening Bubbles lesson)

NOTES:

When We Do the Lesson

Condition: needing to re-charge, when needing to learn respect for the personal space of self and others, before a math lesson

Behavior: fidgety, excited, hyper, not paying attention to directions

(Recommendation: add *No Place Like Home Breath* lesson for better listening skills)

Why We Do the Lesson

- This game is recommended instead of Personal Bubbles Freeze Dance lesson for older children in grades 3-5. The intention is to increase motivation to develop awareness. (Also see Notes in Big Tiny Bubbles lesson.)
- Learning the sense of self begins with spatial awareness around us and then inside
 us. Narrowing attention to smaller and smaller areas around the body helps to
 organically tune awareness inside the body. Sensing the physical space outside of
 us is the first step to sensing how we relate to that space.
- Running around the hoops and dodging others can help increase agility, balance, spatial awareness, and teamwork. More important, it can help increase awareness of respect for fellow participants.
 - Holding the hula-hoop while running around hoops on ground helps increase area immediately around the body in relation to others and the environment.
 - Movement tipping side to side around hoops on ground initiate spiral rotation on lateral sides of the spinal column, influencing movement in posture, alignment and spatial orientation.
 - Balancing and agility activities can help with reading lessons. (see Science below)
- This lesson is also an alternative to the Fish Roll lesson, if the ground is wet, however not as beneficial as Fish Roll.

- Using games with timing to learn addition, subtraction, multiplication or division will help children understand how math can help us in our lives. When setting up the game, ask children to count off and then ask them to divide by two or three teams. Applying math equations to real life situations will help long-term learning and inspire participants to learn more.
- Sprints and aerobic exercise may help recharge the brain and body.

OPTIONAL LESSONS SUGGESTED Drink Water

- o Before drinking water to hydrate
- Ask the participant to notice if they feel thirsty
- Optional: see Muscle Testing lesson to help test muscle to see if they need water
- Ask them to remember how it feels to be thirsty so they can drink water when they need to through out the day

Home Breath

- Sit cross-legged, on back, or lie on belly with knees bent, feet in air, with head resting on ground (on belly is a good position for hyper, young children)
- With mouth softly open INHALE DEEP through nose, PAUSE, EXHALE LONG quietly saying the word, "hommmmmmme" (If lying on belly gently rock legs left and right); stop and pause at the end of each exhalation
- Ask, "Where does long exhalation and vibration of sound end inside the body?" Repeat 3-5 times and notice the feeling
 - The feeling of "Home" is the calmness (or happy feeling) inside; repeat until calm
 - Clarify for young ones this is a different home than the one we live, this one is inside
- Try repeating with eyes open and then eyes closed
- Notice the difference. Which way is easier to feel "home?"

Caution: Only repeat exhalations three or four times and then rest for children under 12 years of age

o To deepen awareness of calmness put a hand on body where the exhalation ends

Notes:

Home Breath technique for young children or hyper people may not work right away. If their bodies have been confined or deprived of movement this needs to be addressed first. Expelling excessive energy with make the breathing technique more effective. For example try jumping jacks first and then do the "Home Breath."

Pancake Body

- Lying on back, legs and arms rest on ground next to body
 - o Feel how your arms, legs and back are touching or not touching the ground
 - o Feel where the body is touching and not touching the floor
 - o For young children ask, "Where could a mongoose (squirrel) run underneath your pancake body?"
 - "How tall is each mongoose that can run under _____(body part, for example, the neck)?"

- Ask participants to remember (size of the space not touching the floor)
 For young children ask, "Notice how big your mongooses are because something magical is going to happen at the end of the (day, lesson, physical ed, recess...)."
- For older people: "Feel what parts of the body on the line of the right arm is touching, feel heavy, or not touchin
 - o ...then the line of the right leg,
 - o ...then the line of the right arm, right leg or the whole right side of your body
 - o Repeat and compare to the left arm, left leg and left side of your body
 - o Are they different? Or the same?"

Notes

- We use the floor as a biofeedback machine; feeling a smooth flat surface of the floor that gives tactile
 pressure (through a proprioceptive impulse) against the body offers clearer awareness in the brain of the
 physical position of body parts and relationship of parts as a whole body.
 - Noticing differences from the beginning to the end of a lesson in Pancake Body will help the brain
 pick up more subtle cues from the body when it needs to adjust and more about what it feels when
 it thinks.

Background

- The hula-hoops twirling around the body while running provides a feeling of spatial awareness challenges. Awareness in and around the body heightens proprioception*. The intention of the steps in the game is to narrow spatial awareness from around the body to core muscles. Twisting, bending and rotating are all part of a spiral rotation happening in the spinal column. The spiral rotation movement is a primary movement for all living things and key in developmental movements. (Recommendation is to follow this lesson with Fish Roll in Part II.)
- *Proprioception orientates the relationship of body parts in space. "In 1906 Charles Sherrington (1857-1952) coined the term proprioception (perception of one's own self)...and called it our 'secret sixth sense.' But this concept of the body as a major sense organ has failed to arouse the interest it deserves.
 - Proprioceptors precisely measure physical properties through motion, pressure, and balance in the sensation of muscle length, tendon tension, joint angle or pressure.
 - "Signals from this sensory orchestra are sent by afferent nerves through the spinal cord to the somatosensory, motor and parietal cortices of the brain, where they continuously feed and update dynamic sensory-motor maps of the body" (Smetacek & Mechsner, 2004, p. 21).
- There are not one but three types of personal space: one is exteroceptive perception (the external spherical or a magnetic field of personal bubble space); the second is interoceptive perception (perceives sensations of pain or stretching); and the third is proprioception (space solely created from the feedback of the status within the body).
- Research at the Institute of HeartMath shows that the heart generates the strongest rhythmic
 electromagnetic field in the body and the heart space can be measured ten feet in diameter around a
 person. This electromagnetic field is virtually a bubble surrounding the body.
- Sense of balance relates to reading capacity according to kinesiologist Jean Blaydes Madigan. In her book, *Thinking on Your Feet*, Madigan said, "These systems (vestibular and cerebellum systems for balance and motor activity) keep our balance, turn thinking into action, and coordinate moves" (Madigan, 2004, p. 15).

- Nonstop, aerobic exercise, for a minimum of 12 minutes, was found beneficial for quicker cognitive responses, processing information, memory, and problem solving (Etnier, et.al., 1999; Van Boxtel, et.al., 1996; as cited in Madigan, 2000, p. 15).
- Participants who sit for more than 20 minutes at a time can experience a decrease in the flow of the brain-derived neurotropic factor (BDNF) according to Madigan, kinesiologist. BDNF helps enable one neuron to communicate with another (Madigan, 2000).