



Your P.E.T. Project Physical Education Technology

***Presented By:
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**The SPARK Programs
1-800-SPARK-PE
www.sparkpe.org**

Your P.E.T. Project – Physical Education Technology

Description: We love our P.E.T.'s -- and wouldn't it be great to download effective physical education lesson plans, quality activity videos, authentic assessment tools, and more, for FREE? Walk your dog to this session and “pick up” all this and more. Rated RR for Really Relevant.

Rationale: This presentation discusses ways to get started with relevant technology tools that can enhance learning and assessment.

Content Outline: This presentation will provide practical ideas and activities that teachers will be able to use as soon as they return to their classes. This session is action packed and full of fun. Each attendee will leave with free 10-day access so they can download the presentation's lessons and assessment tools, watch them on video, and then try them with their students on Monday.

Attendees will:

- Participate in activities using technology tools and solutions.
- Discuss and discover online technology tools.
- Leave with at least 3 new ideas/activities/strategies!

PET Project Essentials

1. Computer with High Speed Internet
Laptop is preferable
2. SPARKfamily.org Membership
3. iPod (or other MP3 player) with Sound System
Video iPod is preferable
4. Pedometers
Step-Only pedometers are perfect
5. Heart Rate Monitors or Pulse Trackers
The less complicated the better

Essential (If your budget allows.)

1. iPad or (other Tablet)
2. LCD Projector
3. ExerGaming System
4. Digital Camera with Video

Favorite Websites

www.sparkfamily.org
www.sparkpe.org
www.pecentral.org
www.presidentschallenge.org
www.fitnessgram.net
www.mypyramid.gov
www.exergamelab.org
www.exergamenetwork.org
www.donorschoose.org
www.livestrong.com



- **Moodle:** Stands for Modular Object Oriented Dynamic Learning Environment. Moodle supports e-learning. Visit moodle.sandi.net/course/view.php?id=1308 and see how Dennis Gildehaus (dgildehaus@sandi.net) of San Diego Unified uses Moodle for his program at Pacific Beach Middle School.
- **QR Codes:** A QR code is like a bar code. People can use their cell phones to scan and connect to a website. You could upload a YouTube video of a certain skill being taught, then create a QR code for it (this is easier than it sounds). Scanning the code brings the student to it - nice outside of PE reinforcement. See the idea here: www.thephysicaleducator.com/index.php/?s=qr+code
- **Websites:** Of course there's SPARK at www.sparkpe.org and sparkfamily.org and PE Central (pecentral.com) for free resources. But try going to www.mypyramid.gov and see where students can obtain their nutritional requirements. Have them research and print out online menus with nutritional information from fast food and other restaurants. Then students pretend to "eat" at the various restaurants using the nutritional info on the menus to make good choices.
- **Google Earth:** Use Google Earth (www.google.com/earth/index.html) to zoom in and show students the countries and cultures where dances, games, and sports originate from.
- **YouTube:** At the beginning of a new unit or learning theme, use YouTube to show students a quick 5 minute clip introducing and showing footage of the sport or activity you are going to be teaching them. They get fired up!
- **Garage Band:** Have students use Garage Band (www.apple.com/ilife/garageband/) to dub in the lines to a created line or square dance over instrumental music. Dan Delager (dddejager@yahoo.com) of Churchill Middle School in Carmichael, CA and a fellow teacher videotaped a group of middle school students performing a Square Dance to a Miley Cyrus song. Instead of, "Put your hands up," they changed the words to, "Put your right hand up and do a right hand star." Dan says this was an awesome activity!
- **Webinars:** Have you thought of hosting one to orient/introduce your program to your parents during the first week of school? Or inform other departments in your district of the innovative things happening your program? Or update your school community on your program's successes and/or special events - and recognize student achievement?
- **iPods, iPads, & iTunes:** Whether you have a Nano budget or have the iTouch with funding, there's an iPod or iPad to help you manage your classes and motivate pumping hearts. There are also great assessment tools optimized for iPad at www.sparkfamily.org. Learn more through videos and support documents from the Apple experts at www.apple.com/support/ipod/
- **iPad Apps:** Create custom music mixes and intervals, learn new fitness exercises, show students how the beating heart works. It's safe to say, "There's an app for that." Check physical education-based app reviews at www.sparkfamily.org.

Omnikin® Tag Ball

SPARKfamily.org GYM Activities

Ready...

- 2-4 Omnikin® Balls (33" – 48")

Set...

- Students lock arms with a partner and scatter in the activity area.
- 2 or more pairs are designated as "Taggers" and begin with an Omnikin® Ball.

GO!

1. The object of Tag Ball is to roll the ball and tag another group by touching them with the ball.
2. Lock elbows with a partner and spread out inside the boundaries.
3. The group with the ball is it and unlocks their arms.
4. When tagged you and your partner get the ball.
5. One variation is to have the game continue until the music stops or a freeze signal is given.

GYM Connection

Every heartbeat pumping in your students' fitness zones is pumping nutrient-rich blood to the brain. This creates a class full of ready and active learners. Getting smart is fun!

Movement prepares the brain for optimal learning – Physical activity and exercise change the learning state into one appropriate for retention and retrieval of memory by moving blood, oxygen, and glucose to the brain. During exercise the body/brain goes into a homeostatic state more conducive to learning by balancing brain chemicals, hormones, electricity, and system functions. Learning readiness declines when the body/brain is out of balance due to lack of physical activity.

Aerobic fitness aids cognition – Researchers found that subjects who were the most aerobically fit had the fastest cognitive responses, measured by reaction time, the speed that subjects processed information, memory span, and problem solving. Aerobic activity not only increases blood flow to the brain, but also speeds recall and reasoning skills.

Exercise reduces stress – Research suggests that mental stress and anxiety can rob the brain and body of adequate oxygen by interrupting normal breathing patterns. However, studies also indicate that proper breathing exercises can enhance oxygen flow, thereby reducing heart rate and anxiety. Students who exercise in active physical education classes can reduce stress and anxiety naturally.



Prep

- Music (interval) and player (optional)
- 1 heart rate monitor per student (optional)



Set

- Students on designated roll-call numbers.
- Play music.



Teach

1. *Aerobic Basics* is the warm-up for our fitness activities today.
2. As you arrive, move to your roll-call numbers and begin moving.
3. **Aerobic Basic Exercises** - Do each of these until the signal to change. (*Allow 30 seconds each and extend as it becomes easier.*)
 - **Knee Taps** – Lift your knees up to your palms held hip-high, alternating L and R.
 - **Imaginary Jump Rope** - Pretend you are jumping rope. Get as tricky as you like!
 - **Jumping Jacks** – Jump to straddle and back on beat, with arms straight moving up and back.
 - **Mountain Climbers** – Put hands on ground and form a wide, inverse “V” with your body. Move to lunge your legs, alternating front foot.
 - **Push-ups** – From your knees or your feet.

ASAP EXTENSIONS

- * **1 – Get in the Zone**
Check your heart rate, working to get and stay in Zone 3. (*See Fitness Activity: Gotta Have Heart for details.*)
- * **2 – Student Routines**
(*Students submit routines with 5 - 10 exercises to be performed during roll-call.*)

STANDARDS ADDRESSED

NASPE

- #3, 4 Aerobic capacity
- #5, 6 Cooperation, enjoyment

Your State (Write in here)

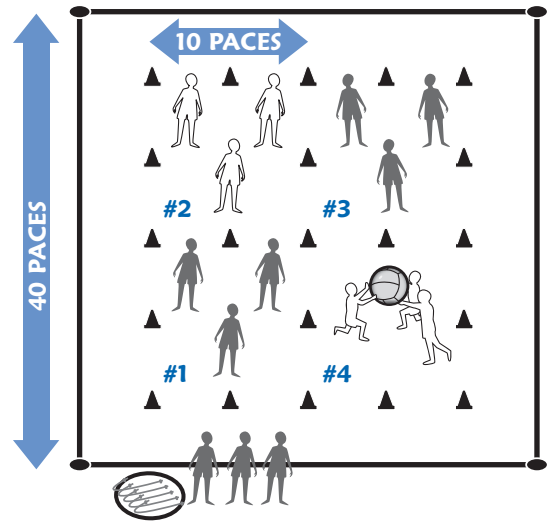


Prep

- 24 cones or spot markers per 15-25 students (for boundaries)
- 1 OMNIKIN® UltraBall or Kin-Ball® (36" or larger) per 15-25 students
- 1 hoop per 15-25 students
- 5 jump ropes per 15-25 students

Set

- Create large (40X40 paces) activity area per group of 15-25.
- Within each area, create 4 medium grids (10X10 paces) and number each 1-4.
- Create re-entry station by placing jump ropes in hoop outside area.
- Form 5 groups of 3-5. One group in each of the 4 grids, 5th group at re-entry station.



Teach

1. The object of *Kin-Ball® 4-Square* is to catch and serve the Kin-Ball® successfully without the ball touching the ground.
2. Play starts with ball in #4 square. This group serves to any other square. All but 1 player in the serving group touch ball with both hands, hold it high overhead, and drop to 1 knee. Server uses 2 fists to punch ball into another square.
3. Ball must be hit up and travel at least 3 paces. No spikes are allowed.
4. The receiving group must control the ball, then gather together and “serve” it to another square using this same serving method.
5. A group commits a fault and goes to the re-entry area if:
 - ball hits the grounds in their square.
 - any player touching the ball steps on a boundary line.
 - ball is hit out of bounds (all lines are out).
 - ball is spiked from high to low or does not travel 3 paces.
 - ball is hit before every member touches and controls it with 2 hands.
6. Groups at the re-entry station jump rope until another group commits a fault. Groups re-enter into the #1 square. Other groups rotate to the next highest # square.
7. Play continues until signal.
8. **Cues**
 - Work together to serve and receive the ball.
9. **Challenges**
 - How many times can your group make it to the #4 square before the signal?
10. **Think About...**
 - Why do you think it is important to communicate as a team?

KIN-BALL® 4-SQUARE

EXTENSIONS

3-Second Rule

As soon as the ball is touched in your square you will have 3 seconds to serve it away. Listen for a 3-count (groups in other squares act as counters).

Kin-Ball® Volleyball

Today we're going to use our *Kin-Ball® 4-Square* rules and play a game of volleyball. Two groups will play over a net (or cones) using the same serving and receiving rules and techniques.



MULTICULTURAL INTEGRATION

Legend has it that 4-Square is a British game. But, 4-Square rules were first published in 1900 in an American book on games. We do know that Kin-Ball® is definitely a Canadian game created in 1986 by a physical education professor named Mario Demers. Blending the 2 games together is a great example of multicultural respect! Let's take what's cool with you, blend it with what's cool with me, and make something cool together. Now that's hot!



STANDARDS ADDRESSED

NASPE

- #1, 2 Motor skill development, defending open space
- #5, 6 Communication/cooperation, appreciation of diversity, accepting challenges

Your State (Write in here)



TEACHING TIPS

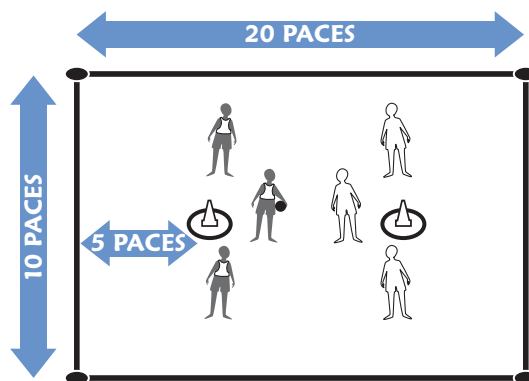
- Teach a 2-handed straight punch to avoid injuries to wrists, arms and hands.
- Focus on teamwork. Every member of each group must be involved.
- Reduce time spent giving instruction by stating the desired outcome first, then 1 or 2 steps to achieve it.

NOTES



Prep

- 4 spot markers per 6 students (for boundaries)
- 2 tall cones per 6 students
- 2 hoops per 6 students
- 1 pinnie per 2 students
- 1 6" foamball per 6 students



Set

- Create long, narrow (20X10 paces) grid per group of 6.
- From the center of each endline, take 5 paces toward the center of the grid and place 1 tall cone in the center of a hoop.
- Form groups of 3; 2 groups and 1 ball per grid. Pinnies begin on Offense.

Teach

1. Today you will learn another lead-in for *Team Handball* called *Defenders of the Cone*. The object is to knock over the other group's cone with an underhand throw.
2. **The Rules**
 - Play begins with pinnie group on Offense and passing ball from their endline.
 - To score, the ball must knock the cone over from an underhand throw.
 - Principle of 3s in effect:
 - o 3 passes must be made before a shot
 - o Defense must stay 3 paces away from Offense
 - o Offense has 3 seconds to pass/shoot/dribble
 - o Only 3 steps/dribbles are allowed
 - All players play both offense and defense. There is no Goalie.
 - Ball may not be kicked. Physical contact with others is not allowed.
 - Ball changes possession if it is knocked down or intercepted by a Defender; if it is hit/ thrown out of bounds.
 - After a score, groups switch roles and the new Offense passes in from their endline.
3. **Cues**
 - Offense: move to open space, give and go, look up the field, and take shots.
 - Defense: mark the Offensive player nearest you; block passing lanes; pressure the ball.
4. **Challenges**
 - How many times can you score after all players in your group have touched the ball?
 - Defense, how few scores can you allow?
5. **Think About...**
 - Which skills and strategies are used that are similar to other sports that we play?
 - Which offensive and defensive strategies did your team use while playing?

DEFENDERS OF THE CONE

EXTENSIONS



Add a Cone

(Need additional hoop and cone per group.) Let's challenge the Defense by adding a 2nd cone for each group to defend.



Overhand Action

Now we'll add an overhand shot to our game. This will allow you to shoot accurately from longer distances.



WELLNESS INTEGRATION

What is "skill transfer" – you ask? Great question! Skill transfer is the ability to learn a skill used in one task, sport, or job, then use it to perform well in another new task. Here's why it's important to wellness. We don't have time to try and learn every activity on the globe – but you might get an opportunity in the future to try something new. The skills you're learning now can transfer to future activities – just like passing in basketball transfers to passing in team handball.



STANDARDS ADDRESSED

NASPE

- #1, 2 Passing, receiving, throwing, defending
- #2 Strategy transfer
- #3, 4 Aerobic capacity
- #5, 6 Team play, cooperation, sportsmanship, appreciation of diversity, accepting challenges

Your State (Write in here)



TEACHING TIPS

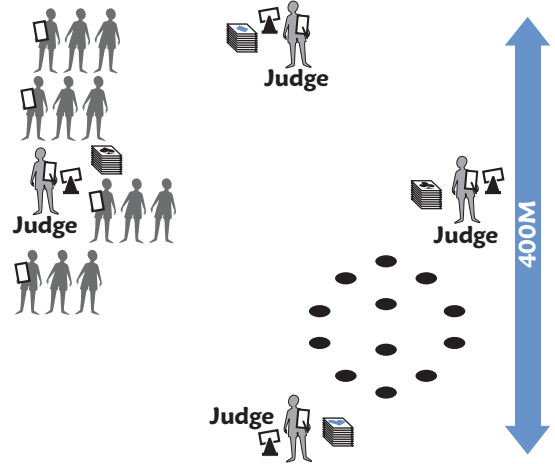
- Teach students to settle disagreements before going to the teacher (e.g., use Rock, Paper, Scissors).
- Pinnies Rule: Group wearing pinnies begins on Offense.

NOTES



Prep

- 4 cones (1 each for 4 stations)
- *Poker Adventure Race Skill Cards: Push-Ups, Rock Hop, Jumping Jacks, Curl-Ups (SPARKfamily.org)*
- 1 *Poker Adventure Race Task Card* per 3 students
- 1 spot marker per student (for Rock Hop)
- 2 decks of playing cards per 12 students
- 4 Shoulder Folders (optional)



Set

- Create a large (400M) loop, placing 4 cones equal distant for the tasks around the loop. See *Poker Adventure Race Task Card* for task details.
- Create 4 stations, 1 at each cone using Shoulder Folders with *Poker Adventure Race Skill Cards* placed in each. See *Poker Adventure Race Task Card* for task details.
- Place 1 Judge at each of the stations and provide each with a stack of playing cards.
- Allow students to create Adventure Racing Groups of 3-4. Provide each group with a *Poker Adventure Race Task Card*.

Teach

1. Today you will use your cooperative skills and improve your fitness in an Adventure Race. The object is to collect as many playing cards as possible and have the best 5-card poker hand at the end of the time limit (*simplify by making the object to collect as many cards of the same suit as possible*). Give each group member a role before the race.
2. **The Rules**
 - Follow instructions on *Poker Adventure Race Task Card*.
 - Groups must stay together the entire race.
 - On your 1st loop you must run around without stopping at any stations.
 - After your 1st loop, you will continue, completing all Task Stations for each of the loops made.
 - Get a playing card at each station.
 - Complete as many loops as possible in the time limit.
3. **Think About...**
 - When did your group cooperate and communicate?
 - Did everyone in your group have a role? What was it?
 - How did you encourage each other?

POKER ADVENTURE RACE

EXTENSIONS

Double 1 Task

Every loop your group must perform double the repetitions needed for either the Jumping Jacks, Push-Ups or Curl-Ups Stations. Your group can change the Double-Up Station every loop.

Pedometer

(Need 1 pedometer per 3 students.) One group member wears a pedometer. Your group will receive 1 extra playing card for every 1000 steps on the pedometer.



WELLNESS INTEGRATION

All members of an Adventure Racing Group have to do their jobs to be successful. The same goes for personal wellness. Three key players include:

- 1) Physical Activity – Get at least 60 minutes a day.
- 2) Nutrition – Eat whole foods like fruits, vegetables, whole grains, and lean proteins. Limit empty foods like soda and candy.
- 3) Rest – Get at least 8 hours of sleep a night.



STANDARDS ADDRESSED

NASPE

#1, 2 Exercise techniques

#3, 4 Muscular strength and endurance, cardiovascular fitness

#5, 6 Cooperation, encouragement, following rules, social interaction

Your State (Write in here)



TEACHING TIPS

- Have a discussion with the class before the activity on how you can hear and see people showing appreciation toward each other. Encourage them to practice this skill during the activity.
- Modify tasks depending on student needs.
- Encourage everyone to jog in place while reading or strategizing.

NOTES

3-MINUTE HEART RATE RECOVERY ASSESSMENT

Prep

- 1 jump rope per student
- 3-Minute HRR Assessment Music and player (*SPARKfamily.org*)
- SPARKfit Heart Rate Monitor Log (*SPARKfamily.org*)

Set

- Use the same activity area as for the rest of the lesson.
- Scatter students in activity area, each with a jump rope.

Teach

1. Recovery heart rate is an important indicator of overall cardiovascular health. Today you will complete a *3-Minute Heart Rate Recovery Assessment* and record the result in your fitness portfolio.
2. Stand with the jump rope in ready position, prepare for a 2-foot basic jump.
3. When the music begins keep pace with the beat. As the beat's tempo increases, your jumping pace becomes faster.
4. After 2-minutes of jumping a signal prompts you to stop jumping and record your heart rate, that number is your peak rate.
5. Breathe deeply and concentrate on slowing your heart rate for 1 minute. On signal, record your 1-minute recovery rate.
6. Subtract your recovery rate from your peak rate. This is your *1-Minute Heart Rate Recovery Score*.
7. A normal, healthy recovery score is ≥ 18 (*Source: American Heart Association*).

JUMP AND STRENGTHEN

Prep

- 4 cones (18")
- SPARK Fit Circuit Training Cards
(Biceps curl, two foot basic jump, two foot twister, triceps extension)
- 4 Shoulder Folders (optional)
- 2 Jump ropes per student in a group
- 2 Medium resistance exercise bands (approx. 48") per student in a group
- Circuit music and player
- LCD Projector with video iPod and Stretch and Strengthen videos (optional)

Set

- Divide a large activity area (40 X 40 paces) into 4 equal stations.
- Create circuit by placing the SPARK Fit Circuit Cards – Jump and Strengthen around perimeter on cones and in shoulder folders to form stations.
- Place needed equipment at each station.
- Distribute students equally to all stations.

Teach

1. Today we're going to work on our health-related fitness by performing the exercises in this SPARK Fit Circuit. Let's watch quick video demonstrations of each exercise. (Show video demonstrations.)
2. Each exercise is also explained on a SPARK Fit Circuit Card. You'll also be able to view demonstration videos while you work.
3. On the music, work at your station. When the music stops, rotate clockwise to the next station. On music, begin again. (Start the music and begin the circuit. Allow students to complete this circuit 3 to 5 times.)
4. **Cues**
 - Remember to work with good posture and form, using smooth movements.
 - Respect each other's space and work safely.

Standards Addressed

NASPE

#3, 4 Cardiovascular endurance, flexibility, muscular strength, muscular endurance

#5, 6 Participates, respects others

Your State (Write in here)

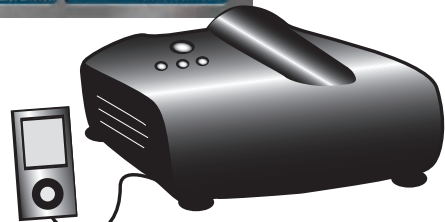
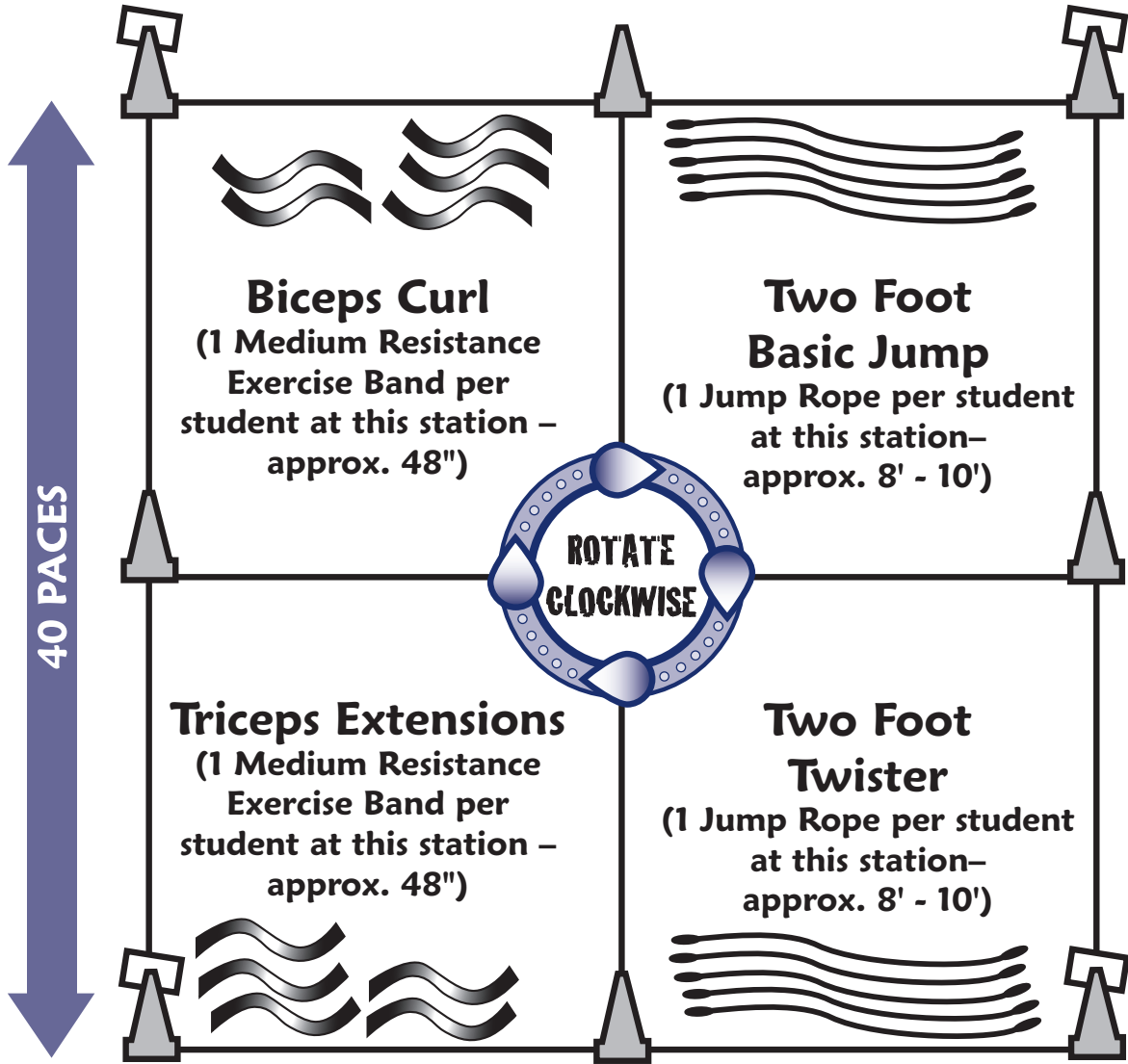
Fitness Testing Component Addressed

- Aerobic Capacity
- Muscular Strength and Endurance

CIRCUIT TRAINING

JUMP AND STRENGTHEN CIRCUIT MAP

CIRCUIT TRAINING



- **See the SPARK website for free resources: www.sparkpe.org**
- **Call SPARK to inquire about hosting a workshop or attending an Institute: 1-800 SPARK PE**
- **Write SPARK with any questions: spark@sparkpe.org**