

FUNctional Fitness Blasts

Training Strategies for Elementary



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Designing Musical Fitness Circuits

Introduction

Circuit training can be done anywhere and with limited equipment and space – all you need is a little imagination and motivating music. By manipulating the length of music and pauses in between songs, you can cater your circuit to fit the needs of your classes, students, athletes, or clients regardless of athletic ability.

What can be assessed by teacher and/or student?

- Heart rate and breathing in relation to student target heart rate zone
- Participation in activity for sustained periods of time
- Safety

Here is the minimal amount of equipment that you will need to get started:

- CD player, with enough volume to be heard outside or in a gymnasium
- Gymnasium, hallway, open classroom or outside (weather permitting)
- Music with pauses incorporated (Roxio Easy CD/DVD Creator 6 for PC, Garageband for Mac)
- Mats
- For resistance, all you need is your own body
- Imagination to create exercises

Settings

- Gymnasium
- Hallway
- Classroom
- Stairwell
- Outside – open field, hill, etc.

Some simple equipment

- Paper plates
- Towels (Beach)
- Hockey sticks or doweling
- Skipping rope, staircase

More equipment ideas

- Active Living Fitness Charts
- Agility ladders
- Surgical tubing
- Medicine balls
- Stability balls
- Body bars
- Balance boards
- Bosu ball
- Barbells, dumbbells, bikes, treadmills, resistance machines, etc.
- Reaction ball

Basic Fitness Circuit Design

Preparation and Equipment

- You will need radio-edit music – 30 second music intervals with 12 second pauses.
- Choose a large open space, ie. classroom, gymnasium, field.
- Use pylons with slits to hold fitness charts in place. For outdoors, garden borders work well and can stick in grass.
- Choose 5 Fitness Charts – 1 upper body, 1 lower body, 2 core (abs and back), 1 cardio card. Here are some sample Fitness Charts including modified options:
 - #30 Modified Push-Up (Option 2 – #23 Push-Up)
 - #26 Chair Squats (Option 2 – Chair Squat then jump to stand)
 - #5 McGill Crunches (Option 2 – #18 Partner Sit-Ups)
 - #18 Bird Dog (Option 2 – #17 Side Planks)
 - #32 Wall Runner (Option 2 – #25 Rebounder)

Instructions

- Place the upper/lower and core fitness charts in different areas of classroom, gym, field, etc.
- Divide class into five groups.
- Assign each group to different area/fitness chart.
- Set repetition range for each chart.
- Explain and demonstrate each activity with level options for each activity.
- Play music while students complete repetitions. When music pauses, students rotate to a different activity.
- All groups should complete circuit 2 or 3 times, depending on fitness level of class.
- Introduce other fitness cards as students' fitness levels increase.

Community Fitness Fair

A great way to raise community awareness of what your students are learning in H&PE and to promote healthy active living is to organize a community fitness fair. Invite students and their families and the community to participate in a Fitness Fun Fair led by your students. Students will be the H&PE ambassadors, demonstrating activities as personal trainers.

You can encourage this event outside of school, as well, to truly make this a community affair. Coordinate the Fitness Fun Fair in your neighbourhood. A community that is fit together, stays healthy together!

Preparation

- Contact a local registered dietitian, naturopath, nutritionist, or family doctor and ask them to help design fruit smoothie recipes for the smoothie bar.
- Go to your local grocery store and request donations of fresh or frozen fruit, frozen yogurt for smoothies, and paper cups. * Be careful of allergies.
- Choose 6-8 Fitness Charts and each chart will be a fitness station.
- Create a music playlist that includes 30 seconds of music and incorporate 12 second rest pauses between songs.
- Select 1-2 students for each station. They will demonstrate the activity and help parents/guardians to complete the circuit.
- Create a flyer to promote the event (see attached mock flyer). Display flyers throughout the school and have students take them home to their parents/guardians.

Minimal Equipment Required

- Active Living Fitness Charts
- Loud music system with CD player – microphone optional
- Playlist with music intervals
- 1-2 blenders
- Fresh fruit or frozen ie. bananas, strawberries, blueberries, mangoes, etc.
- Frozen yogurt, milk, soymilk (discuss with nutritionist/dietitian)
- Paper cups for smoothies
- Pylons with slits or garden borders to display Fitness Charts
- Optional – fishbowl for donations

Instructions

- In a large open area (gymnasium or open field), display chosen Fitness Charts in different areas, ensuring enough space between each chart.
- Divide participants into 6-8 groups.
- Assign each group to fitness station.
- Set repetition range for each chart.
- Have the student personal trainers explain and demonstrate each activity with level options for differentiation.
- Play music while participants complete repetitions.
- When music pauses, instruct participants rotate to a different fitness station.
- All groups should complete circuit 2 or 3 times, depending on fitness levels.
- Open Smoothie Bar for refreshment break.

* *Be sure to ask about allergies.*

JOIN US FOR A
COMMUNITY
FITNESS FAIR!

*Communities that get fit together,
stay healthy together!*

LOCATION: NOTRE DAME
ELEMENTARY SCHOOL
DATE: SATURDAY, SEPTEMBER
5th, 2009
TIME: 12:00pm – 2:00pm

FOR MORE INFORMATION, CONTACT:
INSERT CONTACT DETAILS HERE

INSERT YOUR OWN PICTURE
OR SCHOOL LOGO HERE.

EVENT DETAILS

- Participate in a fun fitness circuit lead by **SCHOOL NAME** personal fitness trainers.
- Promote healthy living in your community.
- Learn how to set up your own circuits at home!
- Enjoy healthy snacks and fresh smoothies provided by local businesses.

DPA Activity – Students Keeping Students Fit

Organize a fitness buddy system within your school, where older students go into lower grade classes and conduct the DPA activities.

Instructions

- Select 2-3 students (“fitness buddies”) from the higher grades (5-8) who have good form when performing activities from Fitness Charts.
- Select 4 strength cards (muscular endurance, flexibility, anaerobic, muscular strength) and 1-2 cardio cards.
- Fitness Buddies will go into lower grade classes to lead the DPA.
- Spread Fitness Charts out in the class to create fitness stations.
- The Fitness Buddies will explain and demonstrate each activity with level options for differentiated learning.
- Begin DPA by playing music.
- Have students perform each activity for 30-60 seconds. Fitness Buddies will perform exercises with the students, ensuring safety and proper form.
- Pause music when rotating between activities.
- Students continue circuit for 20 minutes or the designated time for DPA.

Ladder Drills

Ladder drills help develop agility, coordination, and cardiorespiratory fitness. Illustrated below are some ladder drills that can be used for a fitness blast or as a part of a circuit.

Instructions

Some key points to remember when teaching beginners ladder drills:

- Start off slowly and under control at all times.
- Initially allow students to look down to see where they are stepping.
- Use simple patterns.
- Allow adequate space between each student as they work through the ladder patterns (i.e, 4 squares between each student before the one behind starts).
- Push off from the balls of your feet.
- Keep your elbows at 90 degrees at all times.
- Keep your arms, shoulders, and hands relaxed.
- Pump your hands from 'cheek to cheek' (facial cheeks to butt cheeks).
- Try to keep your head still as much as possible.

The letters R and L represent the right foot and left foot respectively.

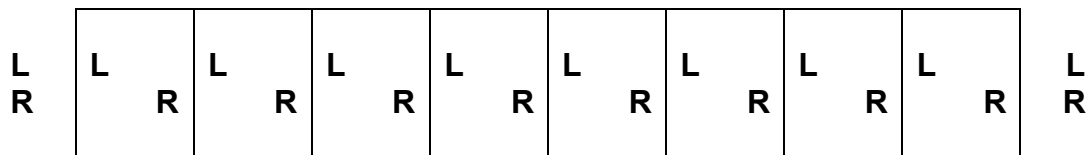
Marching A's

- Walk with knees high, placing only one foot in each square.
- As students get better they can jog and eventually sprint through.
- Repeat this pattern for the full length of the ladder.



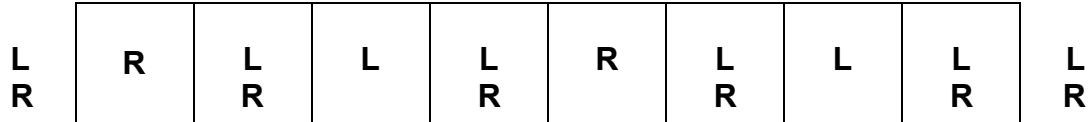
Typewriter

- Begin by placing your right foot in the first square followed by your left foot slightly behind.
- Repeat this pattern for the full length of the ladder.
- Walk back to the beginning around the ladder and this time lead with your left foot.



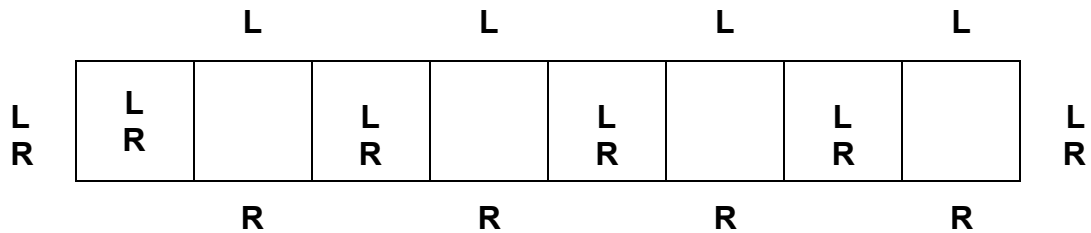
Hop Scotch

Jump up with both feet and land on the right foot only in the first square. Instantly push off with your right foot and land with both feet in the second square. Instantly push off with both feet and land on your left foot only in the third square. Repeat this pattern for the full length of the ladder. Walk back to the beginning around the ladder and this time lead with your left foot.



In and Out

Step into the first square with your left foot immediately followed by your right foot. Now step outside to the left the second square with the left foot, then immediately step outside to the right of the second square with the right foot. Step back into the third square with your left foot first, followed by your right foot. Repeat this pattern for the full length of the ladder. Walk back to the beginning around the ladder and this time lead with your right foot.



Fitness Blast Warm-Ups – Can't Touch This

Partner Tag

- Teach students how to do a single-leg squat (Fitness Chart # 29) or select another card of your choice. (This is a great way to introduce all the charts over time.)
- Find a partner, one person decides to be "It." All "Its" go to one side of the gym and the other partner ("not it") goes to the other side of the gym.
- Allow students to choose to walk, jog, or run.
- On "Go," the It partner tries to tag their partner. Once partner is touched, they perform 3-6 single-leg squats (or card of choice) at the nearest wall they can find. This way they will not be in the way of the other players.

Reaction "21" / Catch the Bait

- You will need several reaction balls, depending on class size. You can also use tennis balls or balls that are really bouncy.
- Select a court size that will allow the reaction ball adequate room to bounce.
- Place students into groups of 2 to 4 players.
- The object of the game is to get as many points as possible by catching the reaction ball after as many bounces (max 5 bounces = 5 points) before it gets out of bounds. The first player to make it to 21 points wins.
- Player 1 drops for player 2, 2 drops for 3, 3 drops for 4, and 4 for 1.
- Player 1 starts the game by dropping the reaction ball with arm fully extended from shoulder height, then vacates the playing area along with all of the other players so the player trying to catch the ball is left in the playing area alone.

Pass the Bass "50"

- You will need a wide open space, ie. gymnasium or outdoor field.
- Split the class into 2 equal teams.
- One team is holding a "rubber bass" or "chicken."
- To start the game, the player with the bass yells, "Chuck the Bass" and throws it across the gym/field.
- The other team runs to get the bass, forms a straight line, and performs "over under" (over the head, though the legs) until the bass reaches the last person in line who then yells "stop."
- Meanwhile, the team that threw the bass forms a tight circle or 'cocoon.' The player who threw the bass runs around the circle trying to run as many revolutions around the team as possible until the other team yells "stop."
- The object of the game is to be the first team to reach 50 revolutions.

Fitness Blast Warm-Ups – All Heart

Clothes Pin Tag

- Object of the game is to collect and pin as many clothes pins to the back of your shirt as possible.
- Hand out 3 or more clothes pins to each person in the class and have the players attach them to the back of their t-shirts – spaced well apart.
- Players are not allowed to grab shirts, wrestle, or hold players while trying to steal pins.
- Players are not allowed to hide or protect their pins and can't put their backs up against the walls.
- To begin, space players well apart in the gym, yell "Go," and players run and try to get clothes pins from the other players.
- Clothes pins that are taken from the other player is pinned on the back of their shirts.

Tennis Ball Drills

- Divide class into partners. Each team has 1 to 2 tennis balls.
- Choose several Fitness Charts and place on each end of gym.
- Players start off on one side of the gym, facing each other, about 2 to 3 metres apart.
- Each player performs the Fitness Chart exercise before starting the relay.
- Tennis ball is tossed back and forth to each other, catching and passing with one hand for the length of the gym then repeat using the other hand.

Drop It

- Object of the game is to toss the tennis ball where the other player isn't.
- In partners, students create an invisible net using 2 pylons.
- To score a point, ball must bounce inside opponent's court and not be returned.
- All throws must be underhand and be thrown immediately from where ball was caught.
- Play someone new after scoring 5 points.
- Variations: Use a reaction ball instead of a tennis ball. Allow the ball to bounce once, keeping the ball going continuously by using your hand as the racquet.

Fitness Blast Warm-Ups – In the Zone

Triangle Tag

- The object of the game is to try to touch the “targeted” player by running around the personal protectors.
- Place students in groups of 4 with 3 of them holding hands to form a triangle.
- The player that is left out is the “runner.”
- Pick one of the triangle players to be the target.
- Players holding hands run, walk, or jog in a circular motion to protect targeted player. The triangle cannot move from spot to spot. (Have students imagine a pole in centre of triangle – they can spin around the “pole,” but they can’t touch it.)
- On “go,” the runner tries to touch the targeted player without jumping over or crawling under the triangle.
- Allow 7 to 10 seconds for the runner to tag the target.
- Switch target and runner after each timed round.

Rock Paper Scissors (RPS) Football

- The object of the game is to keep possession of the tennis ball (bean bags, or any other small implement would work), to score a touch down.
- Select a large playing area in the gym or outside.
- Place students in teams of 4.
- Divide the teams in opposite ends of the gym/field (about 20 to 30 metres). Place teams behind their goal line, single file.
- The first player of one team has the tennis ball in his/her hand.
- When you say “HUT!”, front players briskly walks or jogs toward each other. (Running is not a good choice at the beginning, wait until the students get used to the walk.)
- When the 2 players come face to face, they stop and play RPS. If the person who has the ball wins, they continue on towards opponent’s goal line. The other player jogs back to the end of their own line.
- Next player in line of the opposing team immediately heads toward the ball carrier. Once they meet face to face, they play RPS.
- If the ball carrier wins and within 1 metre of the opponent’s goal line, a touchdown is awarded. If the non-ball carrier wins, the ball is taken and they briskly walk or jog toward opponent’s goal line.
- The teammate from the other team walks to meet them.
- Ball must be handed to the other team when you score.
- All losing players jog back to their line and continue to play until you decide the game is over.

Safety Guidelines

As a way of avoiding injury and ensuring that every student gets the most out of each circuit, be sure to keep the following in mind:

Charts/Cards

Make sure students can perform each exercise with proper technique before you use them in a circuit.

Before Exercising

Students should complete a thorough warm up and cool down before starting and finishing each workout.

Equipment

Students should not use any exercise equipment that is too heavy for them or that they have not had proper instruction to use.

- Check to ensure that all equipment is in proper working order.
- Frequently check tubing for tears, dispose of all torn tubes or dynabands.

Resistance

Allow students to increase resistance when they can perform 10 to 15 repetitions with any apparatus with perfect form and technique.

Posture

Always ensure that proper posture and form is maintained throughout exercises.

Breathing

Make sure students understand how to breathe during resistance training.

- The general rule is to exhale slowly on exertion and to inhale during the return phase of the exercise.

Pain

Students should stop exercising if feeling discomfort, pain, or lightheadedness.

Range of Motion (ROM)

Make sure students complete the entire ROM during each exercise.

Space

Allow adequate space between each “pit” and “conditioning” stations.

Supervision

Students should always be under supervision, especially when equipment is used.

General Resistance Training Guidelines for Circuit Design

Resistance Training Guidelines From The American College of Sports Medicine (ACSM 2000)					
Individuals	Recommended Intensity	Number of Repetitions	Number of Sets	Frequency	Duration of Program
Strength (Beginner)	70-80% of 1-RM or 8 to 12-RM	8-12	Greater or equal to 1	3 times per week	6 weeks or more
Strength (Expert)	85-100% of 1-RM or 1 to 6-RM	1-6	Greater or equal to 3	5-6 times per week	12 weeks or more
Toning	60-70% of 1-RM or 12 to 15-RM	12-15	Greater or equal to 1	3 times per week	6 weeks or more
Endurance	Less or equal To 60% of 1-RM Or 12 to 20-RM	15-20	Greater or equal to 1	3 times per week	6 weeks or more
Hypertrophy (Expert)	70-75% of 1-RM or 10 to 12-RM	10-20	Greater or equal to 3	5-6 times per week	12 weeks or more
<p>The ACSM recommends that older adults and children use multijoint exercise and exercise programs for children and adolescence should be supervised by qualified fitness personnel. Adapted from Hayward 2002.</p>					

Appendix I – Strength Exercises

Legend

BW = body weight

MB = medicine ball

PP = paper plates

ST = surgical tubing

T = towel

BB = balance board

SB = stability ball

BSB = bosu ball

BBar = body bar

Exercises – Add ST, MB, BB, BSB or SB to make all exercises more challenging!

1. Push-ups (chest, triceps, deltoids, hip flexors)
 - a) wall
 - b) modified
 - c) modified one leg
 - d) modified alternating legs
 - e) modified with upward leg thrust
 - f) standard
 2. Arms/shoulders
 - a) bicep (BBar, MB, ST, T with partner)
 - b) triceps (BBar, MB, ST, T with partner)
 - c) shoulder raises (BBar, MB, ST, T with partner)
 3. Sit-ups
 - a) abdominal roller (T)
 - b) McGill (BW)
 - c) chin-ups (BW, MB)
 - d) rollovers (BW, MB)
 - e) HLV thrusts (BW)
 - f) stability ball
 - g) stability ball with (ST)
 4. Back
 - a) one hand partner pull (T)
 - b) two hand partner pull (T- crossed)
 - c) seated row with partner (ST-crossed)
 - d) standing bent-over cross ST raises
 5. Legs
 - a) squats (BW, ST, MB)
 - b) forward, side, diagonal, lunges (BW, MB)
 - c) calf raises (BW, MB)
 - d) hamstrings (MB, SB, PP)
 - e) bear crawl (T, PP)
 6. Hips
 - a) hip thrusts (PP, MB, SB, ST with partner)
 7. Core stability
 - a) body plank
 - b) McGill
 - c) kneeling plank-arm and opposite leg up
 - d) lateral body plank
- Agility and reaction drills
- Reaction ball
 - Dot drill
 - Step-ups (BB)

Appendix II – Sample Circuit Template

Circuit Name: Total Body Blaster

Area of Fitness Focus: Health and Skill Related

Pit and Conditioning Stations	Body Part	Equipment Used	Fitness Component
1a. Medicine Ball Lunges 1b. Skipping	Legs Heart & lungs	Medicine Ball Skipping Rope	Muscular Endurance Cardiovascular
2a. Isometric Curl 2b. Lateral Shuttle	Abdominals, Back Legs	Mat Pylons	Muscular Endurance Agility
3a. Side Plank 3b. Stairs	Abdominals, Back Heart & Lungs	Mat Stairs	Muscular Endurance Cardiovascular
4a. Front & Lateral Delt. Raise 4b. Jog	Shoulders Heart & Lungs	Tubing Gym	Muscular Endurance Cardiovascular
5a. Partner Row 5b. Jog / Sprint Straight	Back Heart & Lungs	Tubing / Beach Towel Gym	Muscular Endurance Cardiovascular
6a. Balance Board Squats 6b. Dot Drill	Leg/Stability Legs	Balance Board / Med-ball Dot Drill Pad	Proprioceptors / Muscular Endurance Agility
7a. Stability Ball Hip Thrust 7b. Skipping	Hip Flexors Heart & Lungs	Stability Ball Skipping rope	Muscular Endurance Cardiovascular
8a. Stability Ball Leg Curls 8b. Lateral Shuttle	Legs Legs	Stability Ball Pylons	Muscular Endurance Agility
9a. Kneeling Partner Press 9b. Stairs	Chest Heart & Lungs	Tubing Stairs	Muscular Endurance Cardiovascular
10a. Triceps Extensions 10b. Jog	Arms Heart & Lungs	Tubing Gym	Muscular Endurance Cardiovascular
11a. Body Bar Tubing Squat 11b. Jog / Sprint straight	Legs Heart & Lungs	Body Bar / Tubing Gym	Muscular Endurance Cardiovascular
12a. Ab Roller 12b. Dot Drill	Abdominals Legs	Towel Dot Drill Pads	Muscular Endurance Agility

Resources

BOOKS

Exercise Science: Introduction to Health and Physical Education, Temertzoglou and Challen (Thompson Educational Publishing), Sections 13 & 14 PP 187 to 239

Website: <http://www.thompsonbooks.com/hpe>

Toll-free: 1-877-366-2763

Healthy Active Living: Keep Fit, Stay Healthy, Have Fun, Temertzoglou (Thompson Educational Publishing), Chapter 8

Website: <http://www.thompsonbooks.com/hpe>

Toll-free: 1-877-366-2763

Carlos Santana Book (Human Kinetics), Drills for Speed, Agility, and Quickness Book/Video Package

<http://www.humankinetics.com/PRODUCTS/SHOWPRODUCT.CFM?ISBN=0736036946>

WEBSITES

Ladder Drills

http://www.uop.edu/AthleticPerformance/exercise%20videos/ladder%20drill%20videos/ladder_drillweb2.htm

Sample circuits for various body parts

Go to “**Bodyworks**” under main menu

Website: <http://www.netfit.co.uk/menu.htm>

Pedometers

<http://www.speakwell.com/ipedcanada/>

EQUIPMENT

Lettuce Make Thyme

Email: lynn@lettucemakethyme.com

Website: www.lettucemakethyme.com

Toll free: 1-877-304-6774

Steps Count (Pedometers)

Email: info@stepscount.com

Website: stepscount.com

Toll-free 1-866-342-2328

Can't Touch This

1. PARTNER TAG

- SINGLE-LEG SQUATS X 4 REPS

F

CR

AN

MS

ME

2. REACTION "21"

F

CR

AN

MS

ME

3. PASS THE BASS "50"

F

CR

AN

MS

ME

All Heart

1. CLOTHES PIN TAG

F CR AN MS ME

2. TENNIS BALL DRILLS

- 1 HAND • 1 HAND BOUNCE
- 2 BALLS RIGHT/LEFT

F CR AN MS ME

3. LADDER RELAY

- 2 IN - 2 OUT • 2 IN-LATERAL
- STRIDE JUMP
- ALL 3 REACTION BALL CATCHES

F CR AN MS ME

In the Zone

1. TRIANGLE TAG

F

CR

AN

MS

ME

2. ROCK PAPER SCISSORS FOOTBALL

F

CR

AN

MS

ME

3. REACTION RELAY

F

CR

AN

MS

ME