

HPE Activities and Assessments Task Force

High School Physical Education – Fitness

Lesson Title: Cross-Curricular Fitness Training Circuit

Objective: Students will solve a variety of problems (e.g., muscles, bones, body systems, skill-related fitness, health-related fitness, math) while completing a fitness training circuit.

Grade Level: 9-12

GLEs: PA2a9-12, PA1c9-12, PA1d9-12

Content Standard(s): HPE1, HPE2, HPE4, MA1

Process Standard(s): 3.2, 4.6

National Standards: NPE4, NH1, NPE1

Time needed to Teach this Lesson/Unit: 1 – 50 minute class period

LEARNING TARGETS:

1. Students will complete a fitness activity after demonstrating cross-curricular knowledge through problem solving.
2. Students will monitor heart rate through the use of heart rate monitors, pulse sticks, or self-test (pulse check) after completing the circuit.
3. Students will work together and encourage one another while completing the circuit.
4. Students will identify muscles most involved in the circuit activity.

LESSON DESIGN:

1. Class will be divided into 4 teams and each chooses their territory (4 hoops spread out).
2. Cones will be in each corner of the gym with signs indicating what a specific color (orange, green, blue & purple).
3. 48 index cards with a cone assignment will be spread out in the middle of the floor (see below).
4. One team member will run (or any locomotor skill chosen by the teacher) to the center of the floor, grabs a card and calls out what is on the card. The **entire** team must go to the cone and perform the task. If the team needs to complete that task they will run to the correct cone and perform the task. After performing the task students will return home and record answer to the problem on their team answer sheet.
5. Second person runs to choose a card. If a card was chosen that has already been completed the team member leaves the card on the floor and returns to the team, tags a new team member who will go pick another index card.
6. Each team must collect/complete 12 different cards. The first team to complete all tasks wins.

Index cards – 4 sets of cards labeled with color and number (blue 1, blue 2, blue 3, green 1, green 2, etc.)

Following tasks **examples** assigned to each cone.

Muscles for Resistance Training

Cones	Problem	Answer	Activity
Blue 1	Muscle that flexes elbow	Biceps	15 on each arm Resistance bands or dumb bell biceps curls
Blue 2	Muscle that extends elbow	Triceps	12 triceps extensions With bands or dumb bells
Blue 3	Triangular muscle in the shoulder	Deltoid	25 arm circles forward , 25 back
Orange 1	Large muscle in front of thigh	Quadriceps	1 min wall sits
Orange 2	Calf muscle	Gastrocnemius	30 heel raises
Orange 3	Large muscle in the back of thigh	Ham strings	10 squat jacks
Green 1	Largest muscle in the body	Gluteus Maximus	10 step lunges
Green 2	Large muscle down the center of the body	abdominals	30 crunches
Green 3	Muscle that allows you to twist	obliques	20 to each side Medicine ball oblique twists with partner
Purple 1	Chest muscle	Pectoralis Major	15 push ups
Purple 2	Triangular back muscle	Trapezius	15 each side Bent rows with dumb bells
Purple 3	Major back muscle	Lattisimus Dorsi	15 overhead lat pull downs with dumb bells

Math -Cardio Training

Cones	Problem	Answer	Activity
Blue 1	25×3	75	Jump ropes
Blue 2	$25 \times 2 + 50$	100	Step ups 50 each
Blue 3	$60/5$	12	Cone jumps
Orange 1	$72 - 59$	13	Line slides
Orange 2	$-5 + 47$	42	Scissors jumps
Orange 3	$7^2 + 3$	52	Line jumps
Green 1	$3 \times 9 - 5$	22	Wall mountain climbers
Green 2	$\frac{11 + 3}{2}$	7	Squat, thrust, jump (Burpees)
Green 3	9×5	45	High knees in place
Purple 1	$4^2 + 10$	26	Jumping jacks
Purple 2	13×3	39	Butt kicks in place
Purple 3	$8x - 5 = 19$	3	Cone run (free throw line to free throw line)

Variations:

1. Change curricular questions (e.g., bones, body systems, skill-related fitness, sport skills)
2. Students will compare and contrast heart rates and perceived rate of exertion after completing a resistance training circuit versus cardiovascular training circuit.

ASSESSMENT: Team Circuit Worksheet (attached)

Technology and Materials Needed: heart rate monitors, dumb bells, resistance bands, cones, stop watch, jump ropes, medicine ball, steps, pencil and team score sheet at each home base

Writer(s) of this Lesson/Unit: Amy Merritt, Annette Slattery, Brenda Goodwin, Christi Hopper