

PERFORMANCE - RELATED NUTRITION AND ENERGY BALANCE

Understanding the relationship between caloric intake & caloric expenditure

Co-curricular Module—Middle School (6-8th grades)
Part 2—Physical Education

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Adapted 5/2012 from *Tools For Learning Fuel for Moving PRNIM* (Draft February 2010) developed by the California Department of Education

Introduction

California’s State Board of Education adopted content standards for Science Education, Health Education, and Physical Education to provide clear descriptions of what students should know and be able to do in each content areas and grade level. All subject areas are either already connected or can synergistically connect to nutrition standards, which provide an opportunity to meet multiple objectives across many disciplines. Nutrition Education does not replace exciting standards in other disciplines, but builds a stronger context for application. California students need a content-rich, K-12 physical education program and a skills-based health education program at all grade levels. This curriculum entitled, *Performance-related Nutrition and Energy Balance*, creates a wonderful opportunity for middle school educators to teach about healthy eating and active living, which research has shown to be critical for student success and achievement.

With the Californian adoption of the National Common Core Standards for English Language Arts and Mathematics, public school educators in all disciplines are implementing learning experiences that support the new standards and address 21st Century skills. The materials and activities presented in this blended instructional unit support the Common Core standards and 21st Century skills, while maintaining the integrity and objectives of the individual disciplines of Science, Health, and Physical Education.

Families, community partners, and other key stakeholder groups can make significant contributions to our collective health by supporting and encouraging high quality instruction, assessment of student learning, and seizing any and every opportunity to encourage and support the learning of this vital content—healthy eating and active living.

These instructional materials were designed to provide teachers with specific lessons for a sample of the content standards but do not provide lessons for all of the content standards. The HEAL VUSD (Healthy Eating, Active Living) project in collaboration with the VUSD Food and Nutrition Services’ Healthy Schools Project (HSP) designed this curricular module using materials from the California Department of Health’s Network for a Healthy California, USDA My Plate, SPARK (Sports, Play and Active Recreation for Kids), and *Tools for Learning Fuel for Moving PRNIM* draft 2012 developed by the California Department of Education. This is a “working” document; it is the HEAL/HSP Projects’ intention that the teachers build on these lessons using their own professional knowledge and expertise.

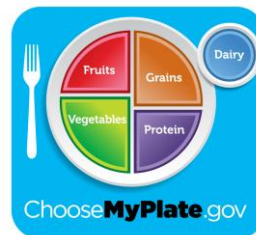


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Performance Related Nutrition & Energy Balance Middle School (6-8th grades)

Content Standards

Common Core Standards:

<i>CCSS.ELA-Literacy.RST.6-8.2</i>	Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.
<i>CCSS.ELA-Literacy.RST.6-8.4</i>	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 6–8 texts and topics</i> .
<i>CCSS.ELA-Literacy.RI.6.7</i>	Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
<i>CCSS.ELA-Literacy.W.6.1</i>	Write arguments to support claims with clear reasons and relevant evidence.
<i>CCSS.ELA-Literacy.W.6.1a</i>	Introduce claim(s) and organize the reasons and evidence clearly.
<i>CCSS.ELA-Literacy.W.6.1b</i>	Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.
<i>CCSS.ELA-Literacy.W.6.1e</i>	Provide a concluding statement or section that follows from the argument presented
<i>CCSS.ELA-Literacy.RST.6-8.8</i>	Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.
<i>CCSS.ELA-Literacy.RST.6-8.9</i>	Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Math I

Creating Equations

- Create equations that describe numbers or relationships.

Reasoning with Equations and Inequalities

- Understand solving equations as a process of reasoning and explain the reasoning.

CA Science Standards:

6th Grade-

- 3b: Students know that when fuel is consumed, most of the energy released becomes heat energy.
- 6: Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation.
- 6a: Students know the utility of energy sources is determined by factors that are involved in converting these sources to useful forms and the consequences of the conversion process.

CA Physical Education Standards:

6th Grade-

- 3.4: Participate in Moderate to Vigorous physical activity a minimum of 4 days per week.
- 3.6: Monitor heart rate during physical activity.
- 4.2 Develop a one-day personal physical fitness plan specifying the intensity, time, and types of physical activities for each component of health-related physical fitness.
- 4.7: Compile and analyze a log noting the food intake/calories consumed and energy expended through physical activity.
- 5.1 Participate productively in group physical activities.
- 5.2 Evaluate individual responsibility in group efforts.

7th Grade-

- 3.1 Assess one's own muscle strength, muscle endurance, aerobic capacity, flexibility, and body composition by using a scientifically based health-related fitness assessment.
- 3.3 Develop individual goals, from research-based standards, for each of the five components of health-related physical fitness.
- 3.5 Participate in moderate to vigorous physical activity a minimum of four days each week.
- 4.5 Describe the role of physical activity and nutrition in achieving physical fitness.
- 5.2 Accept responsibility for individual improvement.
- 5.3 Demonstrate an acceptance of differences in physical development and personal preferences as they affect participation in physical activity.

8th Grade-

- 3.1 Assess the components of health-related physical fitness (muscle strength, muscle endurance, aerobic capacity, flexibility, and body composition) by using a scientifically based health-related physical fitness assessment.
- 3.2 Refine individual personal physical fitness goals for each of the five components of health-related physical fitness, using research-based criteria.
- 3.4 Participate in moderate to vigorous physical activity a minimum of four days each week.
- 3.5 Assess periodically the attainment of, or progress toward, personal physical fitness goals and make necessary adjustments to a personal physical fitness program.
- 4.5 Explain the effects of nutrition and participation in physical activity on weight control, self-concept, and physical performance.
- 5.2 Organize and work cooperatively with a group to achieve the goals of the group

CA 7th & 8th Health

Essential Concepts

- 1.1.N Describe the short- and long-term impact of nutritional choices on health.
- 1.2.N Identify nutrients and their relationships to health.
- 1.3.N Examine the health risks caused by food contaminants.
- 1.4.N Describe how to keep food safe through proper food purchasing, preparation, and storage practices.
- 1.5.N Differentiate between diets that are health-promoting and diets linked to disease.
- 1.6.N Analyze the caloric and nutritional value of foods and beverages.
- 1.7.N Describe the benefits of eating a variety of foods high in iron, calcium, and fiber.
- 1.8.N Identify ways to prepare food that are consistent with current research-based guidelines for a nutritionally balanced diet.
- 1.9.N Analyze the harmful effects of engaging in unscientific diet practices to lose or gain weight.
- 1.10.N Identify the impact of nutrition on chronic disease.
- 1.11.N Analyze the cognitive and physical benefits of eating breakfast daily.
- 1.12.N Examine the role of lifelong fitness activities in maintaining personal fitness, blood pressure, weight, and percentage of body fat.
- 1.13.N Explain how to use a Body Mass Index (BMI) score as a tool for measuring general health.
- 1.14.N Identify ways to increase daily physical activity.
- 1.15.N Explain that incorporating daily moderate or vigorous physical activity into one's life does not require a structured exercise plan or special equipment.
- 1.16.N Differentiate between physical activity and exercise and health-related and skill-related fitness.
- 2.2.N Evaluate internal and external influences on food choices.
- 3.1.N Distinguish between valid and invalid sources of nutrition information
- 4.2.N Practice effective communication skills with parents, guardians, or trusted adults regarding healthy nutrition and physical activity choices.
- 8.1.N Encourage nutrient-dense food choices in school.
- 8.2.N Support increased opportunities for physical activity at school and in the community.
- 8.3.N Encourage peers to eat healthy foods and to be physically active.

Sample Block Plan / Pacing Science

<p>--Intro PowerPoint</p> <p>--Bill Nye Video 1 0--7:55 minute w/guided notes and Cornell Notes</p> <p>--MyPlate Activity</p> <p>--Essential Question Review</p> <p>--Homework (HW): Energy Article and questions & start Vocab Cards</p>	<p>--MyPlate Warm-Up &Review</p> <p>--Bill Nye Video #2 7:55-15 minute w/ guided notes and Cornell Notes</p> <p>--Nutrition Facts Label Reading Activity</p> <p>--Essential Question Review</p> <p>--HW: Balancing Act Article and questions & finish Vocab Cards</p>	<p>--Nutrition Fact Label Warm- Up</p> <p>--Bill Nye video #3 15 minute w/ guided notes and Cornell Notes</p> <p>--Portion Size Matters Activity w/ PPT</p> <p>--Essential Question Review</p> <p>--HW: Food For Fitness Article /Summarize & create questions and answer for article. Study vocab and review previous articles</p> <p>--Wellness Walk (optional)</p>	<p>--Energy Balance Warm- Up</p> <p>--Computer MyPlate Scavenger Hunt (food groups) <i>Supertracker account set up (optional)</i></p> <p>--Essential Question Review</p> <p>--HW: Vocabulary Worksheet</p>	<p>--Rethink Your Drink Warm- Up—<i>Ingredients for a Dynamic Demonstration</i></p> <p>- ReThink Your Drink 2- minute video</p> <p>--Sugar Savvy Students activity</p> <p>--Essential Question Review</p> <p>HW: 3 Day Food Log-Fill out Breakfast together (3 consecutive days)</p>
<p>--Measuring Calories in Food--Experiment</p> <p>--OR BRAIN POP Nutrition Activity on computers</p>	<p>--Complete or Review Experiment/Brain Pop</p> <p>-- Healthy Snack Activity (taste test) Must be scheduled with FNS 2 weeks prior!</p> <p>--HW: Bring in Healthy Snack Recipe</p>	<p>--Warm-Up—Healthy Recipe “share out”</p> <p>--Weight of the Nation for Kids- Quiz Ed w/guided notes and Cornell Notes</p> <p>--HW: Reverse the Trend Written Reflection</p>	<p>--Review and Assign Media Campaign project</p> <p>--Review Brainstorm and Story Board worksheets</p>	<p>--Work on Media Campaign Project</p> <p>--Submit Food Logs & Review</p>
Project Work	Project Work	Media Campaign Project Presentations	Media Campaign Project Presentations	Test Portfolios

Sample Block Plan / Pacing Physical Education

100 Calorie Warm Up Out To Lunch	100 Calorie Warm Up Review Energy Balance Concepts with Pair Shares -Skill Based/Sport Day	100 Calorie Warm Up Nutrition Decoder #1 Fat Transfer	100 Calorie Warm Up Review Energy Balance Concepts with Pair Shares -Skill Based/Sport Day	100 Calorie Warm Up Nutrition Decoder #2 Name That Food AR
100 Calorie Warm Up Burn Em Up	100 Calorie Warm Up Review Energy Balance Concepts with Pair Shares -Skill Based/Sport Day	100 Calorie Warm Up PACER or Mile w/ reflection	100 Calorie Warm Up Review Energy Balance Concepts with Pair Shares -Skill Based/Sport Day	100 Calorie Warm Up Nutrition Trivia AR
100 Calorie Warm Up Energy Balance Circuit	100 Calorie Warm Up -Skill Based/Sport Day Review Energy Balance Concepts with Pair Shares	100 Calorie Warm Up Nutrition Decoder #3 Start Create 200 Calorie Routine/work out	100 Calorie Warm Up Or Work on 200 Calorie Routine -Skill Based/Sport Day Review Energy Balance Concepts with Pair Shares	Create and Perform 200 Calorie Routine/work out

Sample Daily Assessment/Discussion Questions

The questions below can be used to facilitate class dialogue related to physical education lessons and assess student understanding.

1. On the rate of perceived exertion scale (RPE) of 1-10, show me on your fingers how intense your activity was today in class.
2. Based on the game or sport played today, did the class spend 50% or more of the time in moderate-vigorous physical activity (mvpa)?
3. Estimate how many minutes were you moderately to vigorously active today in class? Then determine how many calories you burned, using the general formula 100 calories for every 10 minutes of mvpa.
4. Share with your partner what you had for breakfast or lunch. How did it compare to the MyPlate model? Did you meet the guidelines? Did you lack a food group?
5. Tell your neighbor what portion distortion is and give them an example.
6. Tell your neighbor why they need to “re-think” their drink. What is the healthiest drink choice? (answer: water!)
7. Name 3 reasons why it is important to eat healthfully and be physically active daily?
8. Name 3 diseases that are often times caused by chronic physical inactivity and unhealthful eating. (answer: heart disease, diabetes, obesity)
9. Explain what happens to calories in the body. (answer: calories are used or stored based on the energy balance equation)
10. What type of activities burns the most calories? Why?

100 Calorie Warm Ups

SPARK: Choose Aerobic SPARK activities that require little to no equipment. Scaffold them to make 10-15 minutes or the equivalent of 100 calories of energy/work.

SAMPLES:

1. Partner Warm Ups/Work Out Buddies (Repeat Sequences with partner)

- Jumping Jacks
- Mountain Climbers
- Push Up Low Fives
- Jumping High Tens
- Skier Jumps
- Hop Right
- Hop Left
- Other.....?

2. Calorie Tag

- Designate 3-5 Taggers with Noodle
- If a student gets tagged they have to go to the teacher or cone(s) with task cards for their calorie burning activity.
- Play several 1-2 minute games.

3. Fruit & Veggie Tag

- Everybody is It
- They can make themselves safe by doing jumping jacks and reciting off the names of fruits and vegetables
- If they get tagged they must freeze in a push up position until the round is over.
- Play several 1-2 minute games

4. Meet Me In the Middle

- Pairs start on endline opposite their partner
- On teachers' signal they jog and meet at half court
- Teacher adds movements for them to do at half court before they go back
- Similar to work out buddies but adds some jogging

5. ALL PLAY Grab the Apple (Old steal the bacon)

- 1 Bean Bag between 2 people set on ground at half way point.
- On teachers' signal, students race to pick up bean bag (apple) and take it back to their safety line.

6. 3 Way Rock Paper Scissors Run

Students in groups of 3

Set up 1 on each endline and 1 on the half court line of a basketball court.

Middle student is runner.

Runner jogs to partner and challenges rock paper scissors

Success= 20 Jumping Jacks

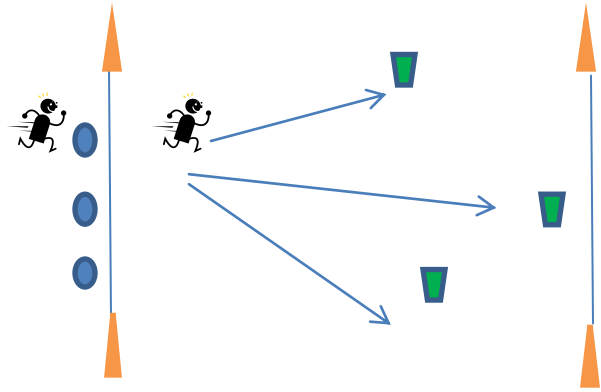
Try Again = jog to other partner and play rock paper scissors

7. SPARK Dances

Pick any aerobic SPARK dance and perform it 3 or more times.

5,6,7,8, California Strut, Virginia Reel, Cupid Shuffle, Troika etc.....

Out to Lunch



Prep

- 3-5 Grab Bags with Food/Calorie Cards
- Cones to Mark Boundaries
- 1 Poly Spot per 2-3 students to mark homebases
- 1 Clip board per group of 2-3 students with Student Accountability Log and pencil per group
- 2-3 Activity Expenditure Charts

Set

- Set up two endlines with cones
- Place home bases behind one endline
- Assign groups of 2-3 students a home base and clipboard with log
- Place Grab bags in different areas of boundaries(different distances)

Teach

1. In Out to Lunch your group will work together to select the foods you will be eating for lunch.
2. You do that by taking turns running to the grocery bags and picking ONE food item.
3. You cannot look in the bag, you must “grab and go” so the person behind you can safely get a food item.
4. On the stop cue, after 1-2 minutes, your group will add up the calories of your meal. A healthy, balanced lunch should be between 400-700 calories.
5. Write down your calorie total on the accountability log.
6. Record how many calories you are over/under in your meal.
7. Than write how much activity (from expenditure chart) you must do to burn those extra calories.

Think About

8. What surprised you in this activity? What foods in these bags do you eat regularly? Will you continue eating them? Why or Why Not?

Assessment

9. Completed Accountability log.

Extension

10. Have students build a healthy meal from all of the items in rounds 1-4 using the *My Plate* model. Students can record on another sheet of paper

Out To Lunch Student Accountability Log

Class Period

Group Names:

Round 1

FOOD ITEM	Calories

Total Calories _____

circle

Our meal is **Over / Under** our goal by: _____

Activity

Minutes

To burn these extra calories we would have to do: _____

Round 2

FOOD ITEM	Calories

Total Calories _____

circle

Our meal is **Over / Under** our goal by: _____

Activity

Minutes

To burn these extra calories we would have to do: _____

Round 3

FOOD ITEM	Calories

Total Calories _____

circle

Our meal is **Over** / **Under** our goal by: _____

Activity

Minutes

To burn these extra calories we would have to do: _____

Round 4

FOOD ITEM	Calories

Total Calories _____

circle

Our meal is **Over** / **Under** our goal by: _____

Activity

Minutes

To burn these extra calories we would have to do: _____

Follow Up Questions: (Answer in complete questions after discussing them with your group.)

1. What surprised you about the food and calories in this activity?
2. What foods in this activity do you eat regularly?
3. What changes will you make in your eating as a result of this activity?

Estimated Calorie Expenditure For Healthy Weight 11-13 year old

Minutes	Activity	Calories
10	Fast Jump Rope	90
30	Full Court Basketball	160
30	Bike Riding Medium Speed	180
30	Competitive Field Sport	220
30	Martial Arts	320
30	Rollerblade Casual	200
15	Jogging Medium (no walking)	140
30	Fast Walking	160
30	Weight Training Intense	190
30	Heavy Yard Work	200
15	Dancing Fast	100
30	Tumbling & Gymnastics	120
30	Tennis Singles	180
30	Swimming Vigorous (competition)	600
30	Slow Walking	120
30	PE Class (vigorous-high effort)	220
30	PE Class (casual-low effort)	150

NUTRITION DECODER

Prep

- 10 cones
- 6 *Decoder Code Keys* (SPARKfamily.org)
- 1 *Decoder Game Sheet* per 2 students (SPARKfamily.org)
- 1 pencil per 2 students
- Tape

Set

- Place 4 cones, 4 paces apart to create starting line.
- Post each *Decoder Game Key* at a different location around the activity area.
- Place a cone 5' to the left of each key.
- Create pairs, each pair with 1 *Decoder Game Sheet* and a pencil.

Teach!

1. The object of *Decoder* is to decode the game quote. Do this by running to a *Decoder Game Key*, then return to your partner remembering the information on the key in order to record it on your *Game Sheet*.
2. RULES:
 - Pairs take turns running to the Decoder Game Keys for clues.
 - Running partner gives a high-5 to partner behind line sending partner for another clue.
 - Be sure to use the correct Key # for each game quote.
 - Keep clues a secret with your partner – no sharing or stealing.
 - All letters must be written legibly.
 - Carry nothing with you when running.
3. WRAP IT UP:
 - Why was cooperation important in this activity?
 - Who can tell me one way we improved our health and fitness levels today?

Standards Addressed:

- Aerobic Capacity
- Social Responsibility, Cooperation

Notes:

Decoder Key

KEY #1

A	B	C	D	E	F	G	H	I	J	K	L	M
1	18	20	14	8	3	4	19	2	22	26	17	11
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
6	16	13	5	9	21	23	12	7	25	24	15	10

Key #2

A	B	C	D	E	F	G	H	I	J	K	L	M
8	6	16	20	2	13	19	26	10	15	18	7	21
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
24	11	23	17	14	22	25	4	12	9	3	5	1

Key #3

A	B	C	D	E	F	G	H	I	J	K	L	M
1	17	12	8	18	24	13	2	19	16	6	20	9
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
3	15	23	25	10	4	21	26	7	14	22	11	5

Nutrition Decoder

Group Names: _____ Period _____

Game 1

15	16	12		1	9	8			
25	19	1	23		15	16	12		
8	1	23							

Game 2

25	26	2	14	2		8	14	2	
25	26	10	14	25	11				
13	10	12	2						
26	4	24	20	14	2	20			
16	8	7	11	14	10	2	22		
10	24		8		23	11	4	24	20

Game 3

9	15	7	18		4	19	22	21	11
9	19	3		1		8	1	11	

FAT TRANSFER

Prep

- 4 hoops (representing the blood vessels)
- 1 beanbag per student (representing High-Density Lipoprotein – HDL)
- 1 larger ball per student (representing Low-Density Lipoprotein – LDL)

Set

- Create a large (30X30 paces) activity area with a hoop in each corner.
- Create 4 equal groups of students; 1 per hoop.
- Place 1 beanbag and 1 large ball into each hoop for each student in the group.

Teach!

1. The object of *Fat Transfer* is to remove all the LDLs (large balls) from your blood vessel (hoop) and fill it with HDLs (beanbags).
2. On signal, take one of your LDLs and jog to another group's hoop. Leave your LDL there and take an HDL back to your blood vessel (hoop).
3. Repeat at other groups' hoops until the stop signal.
4. RULES:
 - You may only take 1 item at a time.
 - When placing an HDL in your hoop, you must have 1 foot in the hoop (to prevent throwing beanbags).
 - No one can stay back to "defend" their team's hoop.
5. CHALLENGES:
 - How many other hoops can you visit before the signal?
6. WRAP IT UP:
 - What were some of the strategies used today?
 - Who can tell me one way we improved our health and fitness levels today? How about another one?

Standards Addressed:































- Aerobic Capacity
- Regular Physical Activity
- Social Responsibility, Cooperation

Notes:

NAME THAT FOOD (Adventure Race)

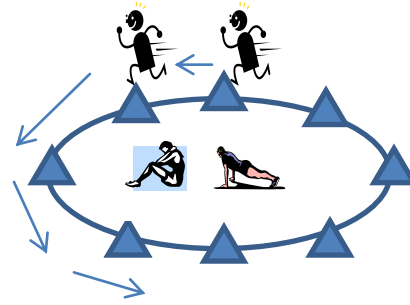
Group Members: _____ Class Period _____

Directions: With your group, walk/jog/run to the different food stations marked by cones. At each cone there will be a picture of a food. You have to decide if it is a fruit, vegetable, protein, grain, or dairy product. Also circle it a Carbohydrate, Protein, Fat or Empty Calories. Then guess how many calories the food is worth. When you are done, get the answer sheet from your teacher, then circle correct/incorrect.

Type of Food	C P F EC <i>(circle)</i>	Calories	Correct/Incorrect <i>(circle)</i>	
1. _____	C P F EC	_____		
2. _____	C P F EC	_____		
3. _____	C P F EC	_____		
4. _____	C P F EC	_____		
5. _____	C P F EC	_____		
6. _____	C P F EC	_____		
7. _____	C P F EC	_____		
8. _____	C P F EC	_____		
9. _____	C P F EC	_____		
10. _____	C P F EC	_____		
11. _____	C P F EC	_____		
12. _____	C P F EC	_____		
13. _____	C P F EC	_____		
14. _____	C P F EC	_____		
15. _____	C P F EC	_____		

Bonus Credit: What is the role of vitamins and minerals in food?

Burn'Em Up



Prep

- 1 Cone per 2-3 students (to create loop)
- 1 Pedometer per 2- 3 students
- Mats/Towels optional for push- ups/sit ups
- Music
- 1 Clipboard/pencil for each group with accountability log

Set

- Create a grid or loop using cones.
- Assign each group of 2-3 a “home cone”, a pedometer, pencil, and accountability log.

Teach

1. In Burn'Em Up you will work with your group to burn the most calories possible. Your goal is to burn 100 or more calories between the 2-3 of you.
2. You do that by taking turns running around the track counter-clockwise wearing the pedometer.
3. When you are not running you must perform push- ups or sit ups inside the track.
4. Keep track of how many push- ups or sit- ups you do each interval/round.
5. On the signal, begin running or push- ups/sit- ups. (*Tallest person runs first*)
6. At the end of 2/3 minutes we will add up your calorie burn. Write down your total calorie burn for each interval/round on the accountability log. We will celebrate after 3-5 intervals/rounds!

1 Push- Up/Sit-Up = $\frac{1}{4}$ of a Calorie

100 Steps = 5 Calories

7. Cues

- Pace yourself so you can run an entire loop.
- Pass classmates on the outside (their right shoulder)

8. Challenges

- Try to increase your steps every interval to burn more calories. (more loops per person)
- Try to do more push / ups or sit ups each interval to burn more calories.

9. Think About...

- How many steps would it take to burn off a McDonalds cheeseburger, fries and regular coke? (850 calories)? A large bag of peanut mm's (500 calories)?
- Medium Size Apple (50 calories)? 2 Cups of dark green lettuce (25 calories)?

10. Assessment (*students can do this verbally or they can record their answers on the back of the log*)

- Pair Share: What is a calorie? What do you think about the amount of energy it takes to burn 100 calories? How will this impact your food decisions?
- Sample Card for Student Accountability (see below)*

Burn'Em Up

Student Accountability Log

Student Names: _____
 Class Period _____

Use this space for math

Round 1			Calorie Equivalent
Steps	_____	=	_____
Push Ups	_____	=	_____
Sit Ups	_____	=	_____
Round 1	Total Calories		_____

Round 2			Calorie Equivalent
Steps	_____	=	_____
Push Ups	_____	=	_____
Sit Ups	_____	=	_____
Round 2	Total Calories		_____

Round 3			Calorie Equivalent
Steps	_____	=	_____
Push Ups	_____	=	_____
Sit Ups	_____	=	_____
Round 3	Total Calories		_____

Round 4			Calorie Equivalent
Steps	_____	=	_____
Push Ups	_____	=	_____
Sit Ups	_____	=	_____
Round 4	Total Calories		_____

Round 5			Calorie Equivalent
Steps	_____	=	_____
Push Ups	_____	=	_____
Sit Ups	_____	=	_____
Round 5	Total Calories		_____

Think About...

How many steps would it take to burn off a McDonalds cheeseburger, fries and regular coke? (1,200 calories for the meal) _____? Or a large bag of peanut mm's (550 calories)? _____ Medium Size Apple (65 calories)? _____ 2 Cups of dark green lettuce (20 calories)? _____

Student Pair Share: Answer Questions in 1-3 Sentences each.

What is a calorie?

What do you think about the amount of energy it takes to burn 100 calories?

How will this impact your food decisions?

Name _____ Period _____ Teacher _____

PACER/MILE
Student Reflection

Directions: After completing your aerobic capacity test, fill out this form so your teacher knows how well you performed. Be sure to answer all questions for full credit. If you do not know your current Body Mass Index (BMI) then ask your teacher to measure your height and weight so you can check the BMI chart.

1. What is *your personal* Healthy Fitness Zone (HFZ) passing score for the:

PACER _____

Mile _____

*For these answers you must know your height, weight, and body mass index (BMI).
(circle test)*

2. Your PACER / MILE score today was _____

3. Did you meet the HFZ passing score for this test? **Yes No** (circle)

4. If you did not meet the HFZ passing score then name 3 things you can do to improve for your next test. (*write in complete sentences*)

A.

B.

C.

What is your goal score/time for your next PACER/MILE test? _____

Name _____ Period _____ Teacher _____

PACER/MILE
Student Reflection

Directions: After completing your aerobic capacity test, fill out this form so your teacher knows how well you performed. Be sure to answer all questions for full credit. If you do not know your current Body Mass Index (BMI) then ask your teacher to measure your height and weight so you can check the BMI chart.

5. What is *your personal* Healthy Fitness Zone (HFZ) passing score for the:

PACER _____

Mile _____

*For these answers you must know your height, weight, and body mass index (BMI).
(circle test)*

6. Your PACER / MILE score today was _____

7. Did you meet the HFZ passing score for this test? **Yes No** (circle)

8. If you did not meet the HFZ passing score then name 3 things you can do to improve for your next test. (*write in complete sentences*)

A.

B.

C.

What is your goal score/time for your next PACER/MILE test? _____

NUTRITION TRIVA Challenge

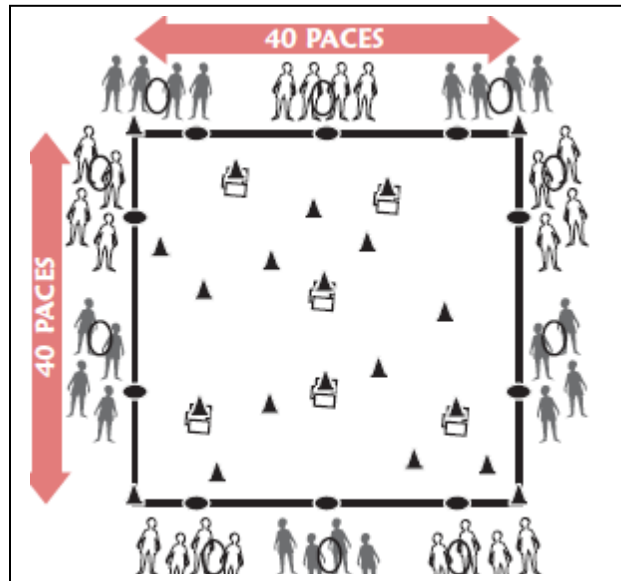
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Prep

- 4 cones (for boundaries)
- 1 spot marker per 3-5 students
- 1 hoop per 3-5 students
- 15-20 cones (to cover cards)
- Print 1 set of *Nutrition Challenge Cards* per 3-5 students (SPARKfamily.org)
- Print 1 set of *Nutrition Answer Cards* per Answer Judge (SPARKfamily.org)

Set

- Create large (40X40 paces) activity area.
- Scatter 15-20 cones throughout area.
- Scatter spot markers along perimeter.
- Group *Nutrition Challenge Cards* by color and place 3-5 cards of the same color under a cone. Use 6 cones to house 1 color each and leave the remaining cones empty.
- Form groups of 3-5 students at each spot along perimeter. All members of each group must be holding hoop with at least 1 hand.
- Designate 2-4 students as Answer Judges, each with *Nutrition Answer Cards* and scattered throughout area. (Teacher and students with physical limitations are great Answer Judges.)
- Assign each group a color to begin game: yellow, green, red, blue, purple, and orange.



Teach

1. The object of *Nutrition Team Challenge* is to correctly answer as many questions on the *Nutrition Challenge Cards* as possible.
2. On signal, your group runs to the cones until you find the cone housing the cards with your assigned color. Select a card and bring it to an Answer Judge to answer the question.
3. If correct, score 1 point then find a color you haven't already answered.
4. If incorrect, return to the same cone, exchange that card for another, and try again. (If you select a card you have already answered, choose another.)
5. Continue until signal.
6. **Cues**
 - Stay together with 1 hand on the hoop.
 - Pick-up cones you may have knocked over.
7. **Challenge**
 - How quickly can your group correctly answer 10 questions?
8. **Think About...**
 - What nutritional fact did you learn today that you did not know before?

Energy Balance Circuit

Combine SPARK's Aerobic Circuit with Body Composition Circuit. Task Cards are in the SPARKfolio

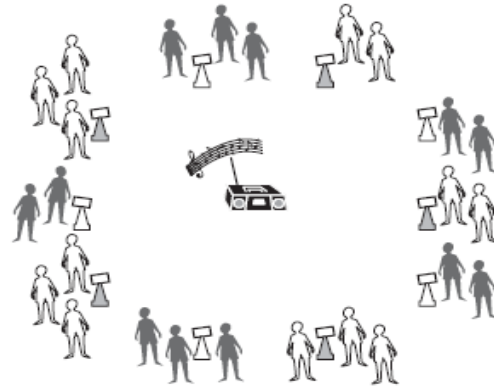
SPARK
ACTIVITY


BODY COMPOSITION CIRCUIT



Prep

- 10 cones (for stations)
- Interval music (1 minute on/10 seconds off) and player (*SPARKfamily.org*)
- 20 Skill Cards: 3 *Aerobic Capacity Skill Cards*, 3 *Flexibility Skill Cards*, 4 *Strength and Endurance Skill Cards*, and 10 *Body Composition Skill Cards* (*SPARKfamily.org*)
- Read through Skill Cards for specific equipment needs
- 10 Shoulder Folders (optional)



 = Fitness Skill Cards

 = Body Composition Skill Cards

Set

- Create circuit by placing 1 *Body Composition Skill Card* and 1 other *Skill Card* at each cone and/or in *Shoulder Folders* to form stations. Keep at least 15 paces between stations (greater distance = more aerobic activity).
- Place needed equipment at each station.
- Disburse students equally among stations.

Teach

1. Today you will learn about body composition by moving through a *Body Composition Circuit*. Body composition is the amount of fat compared to lean body mass you have in your body. Lean body mass is the nonfat tissue made up of muscles, bones, ligaments and tendons. It is important to have a healthy amount of body fat: not too much and not too little.
2. (*Describe and have students demonstrate all stations with a focus on proper technique.*)
3. As you arrive at a station, read the *Body Composition Skill Card*. While answering the question, complete the task on the other *Skill Card*. When music stops, rotate to the next station clockwise.
4. Continue until stop signal.
5. **Cues**
 - Work with others at your station to answer the question.
 - Focus on your body cues. Is your heart beating faster? Are you breathing faster and harder? Can you still talk with your group?
6. **Challenges**
 - If you finish before it's time to rotate, can you expand on your answer?
7. **Think About...**
 - How did the exercises at the stations improve your body composition? (*Increase muscle and burn calories.*)
 - (*Review and ask students to answer questions on Body Composition Skill Cards.*)

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MIDDLE SCHOOL

FITNESS

Use ALL 14 Body Composition Cards and Aerobic Cards. Use tape or shoulder folders to put 1 BC card and 1 Aerobic Card at each station. The Student Accountability Card has 14 spaces for the BC answers. Be sure to number your cones or cards so that the students answers line up with the proper questions.

Energy Balance Circuit

Student Accountability

Group Names: _____ Period _____

Directions: Write the answers to the Body Composition Questions in the Energy Balance Circuit.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.

CREATE a 200 Calorie Fitness Routine

Group Names:

Guidelines:

1. Develop a fitness routine designed to burn 200 calories.
2. Assume that 10 minutes of continuous activity burns 100 calories.
3. Include at least 6 different exercises/activities in your routine.
4. Activities must address all 5 components of health fitness. (AC, MS, ME, F, BC)
5. The routine should be 20 minutes and have smooth transitions from activity to activity.
6. Skills and movements must be performed with good/proper technique.
7. Involve all group members equally; choose activities all group members can perform equally.
8. Be creative.
9. Write out the routine on this sheet. Include your equipment list at the bottom.

Activity	Minutes	Calories

Equipment Needed: