

PHYSICAL EDUCATION LESSON PLAN

Health and fitness is an important part of our every day lives. Although some parts may be intimidating, there are easy ways to get started on the right track. Here are some key terms and formulas that can help you get started!

Food Groups & Nutrition:

Paying attention to the foods you put into your body is essential to keeping a healthy and happy lifestyle. There are countless charts and pyramids to help you determine the right amounts of each food group that you should consume on a daily basis. Although the serving sizes are recommended, everyone's dietary needs are different so the amounts may vary from person to person. Below you will find the suggested serving sizes based on the 5-2-1-0 Program.

1/2 of your plate should consist of vegetables and/or fruits.

1/4 of your plate should consist of grains, rice, and/or bread.

1/4 of your plate should consist of proteins such as meat, poultry, and/or fish.

The 5-2-1-0 Program promotes the idea that everyone should:

Eat 5 servings of fruits and vegetables every day.

Limit your screen time to 2 hours or less.

Get at least 1 hour of physical activity in per day.

Limit your intake of sweetened drinks to θ .

<u>Basic Metabolic Rate</u>, also known as BMR, is what your body burns in calories, while at rest, on a daily basis. BMR is different for everyone and can be calculated using your age, height, weight, gender, and general level of activity and exercise.

Formula: (w: weight (lbs) h: height (inches) a: age (years)

Males: $66 + (6.23 \times w) + (12.7 \times h) - (6.8 \times a)$ Females: $655 + (4.35 \times w) + (4.7 \times h) - (4.7 \times a)$

Now multiply your BMR by the amount of physical activity you do per week.

Sedentary (BMR x 1.2) Lightly Active (BMR x 1.375) Moderately Active (BMR x 1.55) Very Active (BMR x 1.725) Extra Active (BMR x 1.9)

<u>Resting Metabolic Rate</u>, also known as RMR, is similar to BMR. This is what your body burns on a daily basis without the extra physical activity involved.

Formula: w: weight (lbs) h: height (inches) a: age (years)

Males: $4.5 \times w + 15.9 \times h - 5 \times a + 5$ Females: $4.5 \times w + 15.9 \times h - 5 \times a + 161$

The difference between the two is the testing conditions. Although there are formulas for easy at-home calculations, you can also get tested at gyms and other facilities where they alter your surroundings to get an accurate total.

Steps to Calories:

A good way to keep track of some of the calories you burn per day is to use a pedometer. By using a pedometer, you can track how many steps you take and convert them into the number of calories you've burned.

Formula:

Casual Walking at 2 mph:

- Multiply your weight by .57 to determine the amount of calories you burn per mile. Ex: Calories Burned per Mile = 0.57 x 150 lbs = 85.5 calories per mile
- Casually walk for 1 mile and record the number of steps it took you to finish the mile. Ex: 2,200 steps
- Divide calories burned per mile by the number of steps it takes to casually walk a mile. Ex: Conversion = 85.5 calories per mile / 2,200 steps per mile = 0.039 calories per step
- Multiply calories per step by the number of steps on your pedometer. Ex: 7,500 steps x 0.039 calories per step = 292.5 calories burned per mile

Power Walking at 3.5 mph:

- Multiply your weight by .05 to determine the amount of calories you burn per mile. Ex: Calories Burned per Mile = 0.5 x 150 lbs = 75 calories per mile
- Walk briskly for 1 mile and record the number of steps it took you to finish the mile. Ex: 1,400 steps
- Divide calories burned per mile by the number of steps it takes to briskly walk a mile. Ex: Conversion = 75 calories per mile / 1,400 steps per mile = 0.054 calories per step
- Multiply calories per step by the number of steps on your pedometer. Ex: 7,500 steps x 0.054 calories per step = 405 calories burned per mile

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Calories:

A calorie is a way to measure how much energy you are putting into your body. Just like a car needs gas to run or a cell phone needs battery power to function, we need calories to get through our day-to-day lives. We get calories from the foods we eat and the beverages we drink. Although we need calories to survive, that doesn't mean that we can eat whatever we want all the time. Eating a healthy balanced diet will keep us moving and grooving in our daily activities.

IN-CLASS ACTIVITY

Keep track of your calorie intake and physical activity for one day then answer the following questions using the formulas from the info sheet provided.

Description of Food	# of Calories	Activity	# of Calories Burned

Total Calories Consumed:

Total Calories Burned: _____

IN-CLASS ACTIVITY

Using the space below, calculate your BMR/RMR. How many calories do you need per day?
Did you go above or below your BMR/RMR?
Did you eat the proper amount of servings of each food group? If not, what do you need to eat more or less of?
For every one pound there are about 3500 calories. If you wanted to lose one pound per week you would have to eat 500 calories less per day. What could you subtract, add, or eat less of to reach that goal?
Before your trip to Canobie Lake Park, calculate how many calories you burn per mile of walking. Use the space below to show your calculations.

In-Park Activity

Answer the following questions using your calculations from your in-class activity and your experience at Canobie Lake Park. Some of the questions involve tracking your steps. This can be done by simply counting them yourself, using a pedometer, or downloading a free pedometer application on your phone.

List food consumed while at Canobie Lake Park:	List of Physical Activities and number of steps while at Canobie Lake Park:		

About how many steps/miles did you walk today?

How many calories did you burn from walking around the park?

Track how many steps it takes to get from the Timber Splash to Untamed. There are about 580 calories in the average funnel cake with powdered sugar on top. How many times would you have to walk from the Timber Splash to Untamed to burn the exact calories from eating a funnel cake?

IN-CLASS ACTIVITY

For Younger Athletes!

Below are some of the foods we eat on a daily basis with their calorie amounts listed next to them. Use the chart to answer the first question and use the 5-2-1-0 Program to answer the rest.

Hamburger <i>350</i>	Broccoli 24	Waffle 82	Soda 150
Hot Dog 440	Macaroni & Cheese 400	2 Pancakes 110	Diet Soda 0
Slice of Cheese Pizza 360	Grilled Cheese 230	Apple 55	Juice 125
Salad 43	Grilled Chicken 110	Banana 90	Sports Drink 125
Spaghetti & Sauce 340	Cereal 110	Yogurt 208	
Steak 213	Scrambled Eggs 140	Chips <i>152</i>	
French Fries 170	3 Slices of Bacon 126	Water 0	
Baked Potato 290	3 Sausage Links 170	2% Milk <i>122</i>	

Make up your own breakfast, lunch, and dinner with the foods you see above. Write them down and add the number of calories from each meal, then add the total amount of calories you would consume.

List the 5 vegetables and fruits you are going to eat today.

How are you going to spend your screen time for 2 hours or less? How can you cut down your screen time if you go over?

What are you going to do for your 1 hour (or more!) of phsyical activity?

Distance in Steps Around the Park

(Leaving the Main Gate heading toward the Sky Wheel, along the outside of the park)

Main Gate to Log Flume 162 Boston Tea Party to DaVinci's Dream 255

Log Flume to Haunted Mine 150 DaVinci's Dream to Untamed 137

Haunted Mine to Castaway Island 291 Untamed to Midway Stage 195

Castaway Island to Boston Tea Party 285 Midway Stage to Front Gate 269

If Molly the Mouse walked from the Main Gate to Castaway Island to meet Timmy the Shark, how many steps did she take? If they then walked from Castaway Island to Untamed to meet Bruno the Bear, how many more steps did Molly take?

Map your own route to walk at least 1,000 steps. You can use the steps provided above, or count your own.

How many steps would it take to get around the entire park?

If it is a half-mile from the Main Gate to DaVinci's Dream, estimate how many miles you think you walked today.

PHYSICAL EDUCATION REPORT CARD

Each student presenting this report card may receive a stamp by a designated Canobie Cast Member following the applicable presentations:

