Playing with the METS

Ever wonder how many calories you burn while playing your favorite sport? Health scientists have devised a method that allows you to estimate how much energy it takes to do a wide variety of activities. In this activity, you'll learn how to use Metabolic Equivalents, or METs.

What to Do:

1. Choose an activity in the table below and multiply the number of METs by 3.5.
2. Multiply the number in step 1 by your weight in kg (1 kg = 2.2 lbs).
3. Divide the number you get in step 2 by 200.
4. Enter the activity and the number of minutes you do the activity per day into a data table. Multiply that number by the number you obtained in step 3. This will give you the total number of calories burned for the activity. Enter that number into the data table.
5. Complete the data table to figure out how many calories you burn from your daily activities.

Sample data table

Sport/ Activity	Minutes per Day	Calories Burned
	Total	

How It Works:

The Metabolic Equivalent (MET) is the ratio of your work metabolic rate to your resting metabolic rate. One MET is 1 kilocalorie/kg/hour. It is roughly the equivalent of the energy you use while sitting quietly. One MET also equals 3.5 milliliters of oxygen (O_2) per kg of body weight per minute. This is the oxygen rate your body requires at rest.

METs are only an approximation of your body's energy use. The exact amount of energy you expend in an activity depends on many variables, such as your age, gender, amount of body fat, and environmental conditions (for example, climate).

FYI...

Olympic gold metalist Michael Phelps consumes 12,000 calories a day to fuel his rigorous swimming regimen. For breakfast alone Phelps eats three fried egg sandwiches with mayo, a five-egg omelet, a bowl of grits, three pieces of French toast with powdered sugar, and three chocolate chip pancakes.

Phelps, at 6 ft 4 in, weighs 200 pounds. Can you calculate how many hours a day he needs to swim to burn off 12,000 calories?

MET Activity Table

Sport/Activity	Metabolic Equivalents (METs)	Sport/Activity	Metabolic Equivalents (METs)
sleeping	0.9	baseball	5.0
watching television	1.0	skateboarding	5.0
eating	1.5	social dancing	5.0
talking on phone	1.5	track (general)	6.0
sitting in a classroom	1.8	wrestling	6.0
driving a car	2.0	basketball	7.0
showering	2.0	jogging/swimming laps	7.0
light housework	2.5	tennis	7.0
weight lifting	3.0	bicycle riding	8.0
walking	3.5	football/soccer	8.0
gymnastics (general)	4.0	hockey (field and ice)	8.0
volleyball	4.0	running fast	10.0
golf	4.5	roller blading	12.0

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