

Dimensional Analysis Lab: This will get you moving ☺ Name: _____ Period: _____
Choose one group member to perform each of the following tasks. Everyone should help and perform the calculations. They are set up for you, just plug in the conversion factors including the one you figure out.
 20 pts

#1 Standing Long Jump: (4 pts)

Using a meter stick measure your [standing long jump](#) in cm.

_____ cm = 1 jump

Now Convert: How many long jumps it would take for you to “jump” from DRRHS to Dunkin Donuts on Rte 118. (From DRRHS to Dunkin on Rte 118, via County Street, is 4.2 miles).
 Start with 4.2 miles, then convert to your jumps....

Some conversions	1 mi = 1.6 km	100 cm = 1 m	1000 m = 1 k
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jumps = _____

#2 Walking: (4 pts)

Calculate how long it takes you to walk 10 meters in seconds.

10 m = _____ s

Now Convert: How many hours would it take you to walk to visit Mount Rushmore? (From DRRHS, MA to Mt Rushmore, SD, nonstop, is 1956 miles).

Some Conversions	1000 m = 1 km	1 miles = 1.609 kilometers	60 second = 1 min	60 min = 1 hour
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hours = _____

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#3 Candy Chew: (4 pts)

Find the mass of a candy. _____ g

Record the time it takes to chew one candy until it is gone.

Candy gone in _____ s

Record the grams chewed per second

Grams chewed = _____ g
 second _____ s

Now Convert: How many minutes would it take you to eat 1 Kg of candies? (one piece at a time).

Some Conversions	1000g = 1 kg	60 s = 1 min	60 min = 1 hour
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min = _____

4 Throw the ball: (4 pts)

Find the distance, in inches, you can throw the ball.

1 throw = _____ inches

Now Convert: How many throws would you need to reach the moon.

Some Conversions	Earth to Moon is 384,400 km	1000 m = 1 km	1 miles = 1.609 kilometers	1 m = 100 cm	2.54 cm = 1 in
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throws = _____

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#5. You design the problem. (4 pts)

It is your turn. You design a problem that involves some activity and a measurement. You can make it as simple or as complex as you would like. Write your problem below (be sure to give the instructions), list any conversion factors and have your partner solve your problem.

Your Problem	
Conversion factors needed	
Solution (Be sure to enter the name of the student that solved (attempted to solve) your problem.	