Homework tonight: yes. (have someone at your table check on their phone *right now*: genest.weebly.com)

Purpose :

How can particle pictures show the Law of Conservation of Mass?

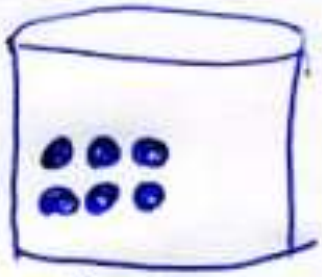
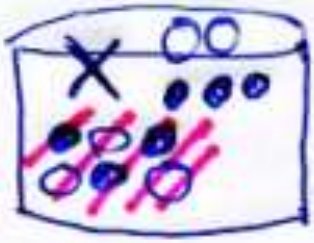
Warmup:
copy

fluffing up some steel wool	
before	after
	

After this change the mass stayed the same.

The Law of Conservation of Mass says
1) the total mass of a closed system cannot change.
The mass of all your matter must be the same before and after.
2)If the mass seems to change, you overlooked some part of the system!

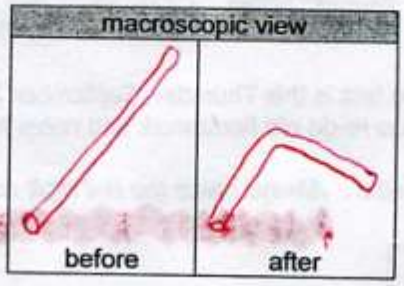
A particle picture of food rotting in a can
● = good food O = rotten food X
X = GAS

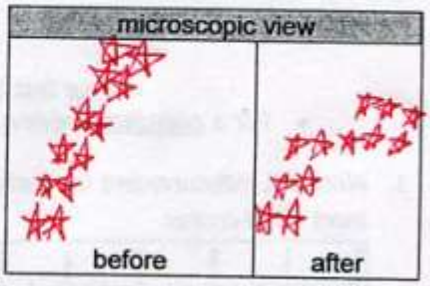
day 1	day 1000	day 1001
		
205 grams	205 grams	199 grams

IMPORTANT In problems #7 - #9, pay special attentionto have the number of particles in the microscopic before and after explain the weight change that is described in each case.

7. Bending a straight wire into a 90° angle [Your drawing should explain why the total mass stays the same.]

Symbols that I used:
☆ = iron





announcements: sign up after class to meet with me for five minutes

Test this Thursday

What to study everything in notes and homework since September 2.

How to study cover up your answers, try to re-do the homework. Memorize notes.

Office Hours I'm always here after school Tuesdays and Thursdays. I'm here at all lunches, the whole lunch.

Are elements on the test? No.

The Law of Conservation of Mass says

1) the total mass of a closed system cannot change.

The mass of all your matter must be the same before and after.

2)If the mass seems to change, you overlooked some part of the system!

Your Period____ Name _____

ANS.

Either use your 6 rules from the textbook OR use today's Atlantic-Pacific rules. Both work.

FOR EACH PROBLEM DETERMINE HOW MANY SIGNIFICANT FIGURES ARE IN THE MEASUREMENT

1) 3.0800 sec five
2) 0.00418 m three
3) thirty dirty birds infinite
4) 91,600 people three
5) 0.003005 meters four
6) 1 pound of bird feces one (not infinite)!
7) 250 kg two
8) 780,000,000 m two
9) 0.0101 sec three
10) 0.00800 g three
11) 0.0078 cm two
12) 1.090 grams four
13) 78900 grams three
14) 25 cents in a quarter ∞
15) 2200000 meters two

Multiplying/Dividing with Measurements

The product or division will never have any more precision then the measurement with the least number of significant figures.

For each problem determine the significant figures (SF) of each number and then circle the lowest number of SF. Round the answer to that many SF.

Model:

32.90 grams [4] 25.2 ml (3) = 1.3055556 = 1.31 grams / ml

1. 12.8 [3] x 5.2 [2] = 66.56 ≈ 67
2. 100 [1] x 8.57 [3] = ~~857~~ 15.789 ≈ 900
3. 6008 [4] / 8.724 [4] = 688.67 ≈ 688.7
4. 72 [2] / 7 [1] = 10.2857 ≈ 10
5. 600 [1] / 38 [2] = ~~22800~~ ≈ 20000
6. 0.00005 [1] x 538 [3] = 0.0269 ≈ 0.03