## Agenda

- Start Measure a Bean lab
- Class time to work on study guide



## Measure a bean objective

- The purpose of this lab is for you to become familiar with the names and uses of the laboratory equipment.
- Record all measurements and data on the data table on page 4.



## Day one materials per lab group

1. Five beans in a paper cup
2. One sharpie marker
3. One classroom ruler
4. One beaker of water
5. One graduated cylinder
6. One paper towel
7. One electronic balance (shared among the entire class)



## Day one procedure

1. Number 5 beans 1-5 with a sharpie.
2. Measure the length and width of each bean in $\boldsymbol{m m}$ with a metric ruler.
3. Use beaker to fill a graduated cylinder to the 10 mL mark
4. Add all 5 beans to the graduated cylinder. To determine the volume of the beans, see how many mL the water raised. Don't forget to subtract the 10 mL you started with!
5. Dry your beans with a paper towel. Record the mass of all 5 beans using an electronic balance.
6. Write your team name on the cup with a sharpie, place all five beans in the cup, and fil it with 50 mL of water.
7. Place your cup of beans and water on the back table.
8. Return your lab equipment where you got it and clean up your area.
9. Work on the day one lab questions.

##   Wensuramisin



## Data tables

DATA TABLES (20 points, 10 points each)

|  | DAY ONE |  |
| :---: | :---: | :---: |
| Bean \# | Width (mm) | Length (mm) |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| Mean |  |  |
| Volume of <br> all 5 beans <br> (mL) |  |  |
| Mass of all <br> 5 beans (g) |  |  |


| DAY TWO |  |
| :---: | :---: |
| Width (mm) | Length (mm) |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## How to use the electronic balance

1. Make sure the balance is on
2. Press the On/Zero button and wait until you see 0.0 on the screen
3. Place your beans on the balance
4. Be careful not to lean on the table
5. Record your data


## READ THE DAY ONE PROCEDURE!!!!!



## FINISHED WITH THE DAY

 1 QUESTIONS ANDCLEANED UP???

1. Work on your study guide
2. Metric system word searches
3. Quiet white board review
