Water Use Diary Lab

Purpose: To identify the amount of water used by a person in your household on average in a day, and compare that value to the national average.

Procedure:

Keep a diary of water use in your home for three days. In the data table below, record how often the various water use activities happen. Make sure you ask each member of your household to add their information as well. It may be helpful to print off this table and post it somewhere common in your house so all people can put in the information. Or you may choose to interview each person daily. Estimate values as best you can.

Data Table:

	Day 1	Day 2	Day 3
Number of persons			
Number of baths			
Duration of shower running in minutes			
Number of toilet flushes			
Number of hand-washed load of dishes			
Number of dishwasher runs			
Number of washing machine loads			
Minutes watering the lawn			
Number of car washes			
Number of cups for cooking			
Number of glasses of water in cups			
Minutes of water running in sink			
Add others as necessary			

Data Analysis:

1) Your teacher will provide you with a data table that lists the amount of water required for typical activities. Estimate the total water volume (in L) used by your household during the three days. It may be helpful to add another column to the table above to accomplish this.

2) How much water (in L) was used, on average, by one person each day?

3) Compile the data for the average per person per day water use for the entire class. Input the data in a Google spreadsheet and create a histogram. Insert the histogram below. Have about 10 different ranges in your data, and make sure the data table is titled and labeled on each axis.

Questions:

1) What is the range of average daily personal water use for your class?

2) Calculate the mean and median values for the class data. Which number is a better representation of the information?

3) How does your household's personal average compare to the estimated volume used by an American of 300 L? What explanations can you give for any differences in your data?

4) Which is closer, your average or the class average? What reasons can you give to support why that value is closer?

Conclusion: