

Name _____

Date _____

Period _____

Living Environment

Lab #2: Bottled or tap water?

Challenge Question Part 1: How can we determine which water students prefer?

Materials:

- 4 types of water
- sharpie markers
- dixies cups

Procedure:

1. Pour a very small amount of the four types of water each into a separate mini-cup.
2. Taste each type of water
3. Rank the water 1,2,3,4. With 1 as your favorite, 2 as 2nd favorite, 3 as 3rd favorite, and 4 as least favorite.
4. Write down your rankings in the data table.

Data

Water Type	Fiji	Poland Spring	Market Pantry	Water Fountain
Your Ranking				
Table Average				

Challenge Question Part 2: How can we eliminate experimental bias in testing water preferences?

State your hypothesis for this experiment.(if, then, because):

Procedure(first find a partner at your table):

1. Pour a very small amount of the four types of water each into a separate mini-cup.
- 2.
3. Taste each type of water given to you by your partner
4. Rank the water 1,2,3,4. With 1 as your favorite, 2 as 2nd favorite, 3 as 3rd favorite, and 4 as least favorite.
- 5.

Water Type	Fiji	Poland Spring	Market Pantry	Water Fountain
Your Partner's Blind Ranking				
Table Average				

Analysis Questions

1. What variable did you change between experiment 1 and experiment 2? How does this change eliminate bias in your experiment?
2. For experiment 1 and 2 which type of water was preferred the **most** at your table? Which type of water was preferred the **least** for each experiment?
3. Calculate the difference between the averages(by your table) for experiment 1 and experiment 2 for each type of water.
4. Is your hypothesis correct? Why or why not?(use the averages and calculations you made to justify your answer).