

# Lab Report Template

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Project 4.3.5 Drink this.

## Problem

How different is the Indian creek water from other types of water?

## Hypothesis

There will be significant differences between the Indian Creek water and the other types of water.

## Materials

- Indian Creek water
- Dasani water
- Hose water
- Classroom Sink water
- Temperature sensor
- Dissolved oxygen sensor
- pH sensor
- Turbidity sensor
- Nitrate kit
- 4 50 ml beakers
- Rinse bottle
- 650 ml beaker
- Lab Quest

## Procedures

1. Collect 50 ml of each type of water.
2. Test each water type's temperature.
3. Test each water type's pH.
4. Test each water type's dissolved oxygen.
5. Test each water type's turbidity.
6. Test each water type's nitrates by dipping the stick into the water for 1 second then wait 30 seconds then compare to the colors on the bottle to ppm.

## Data Collection

Type of Water	Temperature	pH	Dissolved	Turbidity	Nitrate
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			oxygen		
Indian Creek	23.1 °C	7.14	83.6%	3.8NTU	1.5ppm
Dasani	22.3 °C	5.30	63.6%	2.9NTU	2ppm
Hose Water	21.6 °C	6.69	35.8%	1.7NTU	3ppm
Sink water	22.8 °C	7.39	76.4%	-3.39NTU	2ppm

## Analysis of Results

The results of the experiment show that our hypothesis was incorrect and that the Indian Creek water wasn't that much different from the other three types of water. The Indian Creek water was actually the 2<sup>nd</sup> least acidic water that we tested and had the least nitrates.

## Conclusions

Based upon the results that we gathered from our experiment we can infer that the Indian Creek water only has differences in the dissolved oxygen and turbidity. We predicted that there would be significant differences between the Indian Creek water and the other three types of water but there really wasn't. Errors that occurred were the turbidity sensor must have malfunctioned because one of our numbers was in the negatives and they shouldn't have been. A question I now have is why did the Indian Creek water have a neutral PH and why did it have the highest percentage of dissolved oxygen.