

# Water in the Window

Ben observed that puddles outside seem to appear more quickly when it is a sunny day.

He decided to test this by setting up an experiment in which he placed a graduated cylinder with 10 ml of water in a dark closet and a graduated cylinder with 10 ml of water by the window. Each day he measured the amount of water. His data is shown below.

Amount of Water Each Day	Water on the Windowsill	Water in the Dark Closet
Day 1 (ml)	10 ml	10 ml
Day 2 (ml)	9 ml	10 ml
Day 3 (ml)	7 ml	10 ml
Day 4 (ml)	4 ml	9.5 ml

## Your Turn

1. Write a testable question this experiment would answer.
2. Identify the independent variable in this experiment.
3. What is the difference between volume of water in the windowsill on Day 4 and the volume of water in the closet on Day 4?
4. Use the data to write a conclusion for this experiment.
5. Identify one constant or controlled variable for this experiment.

Independent Variable - Placement of water

dependent variable - Amount of water.

Hypothesis - At the end of a certain amount of time ~~the~~ the water in the light will evaporate much quicker than in the dark.

Observation  
9.5 ml closet  
4.0 ml window  

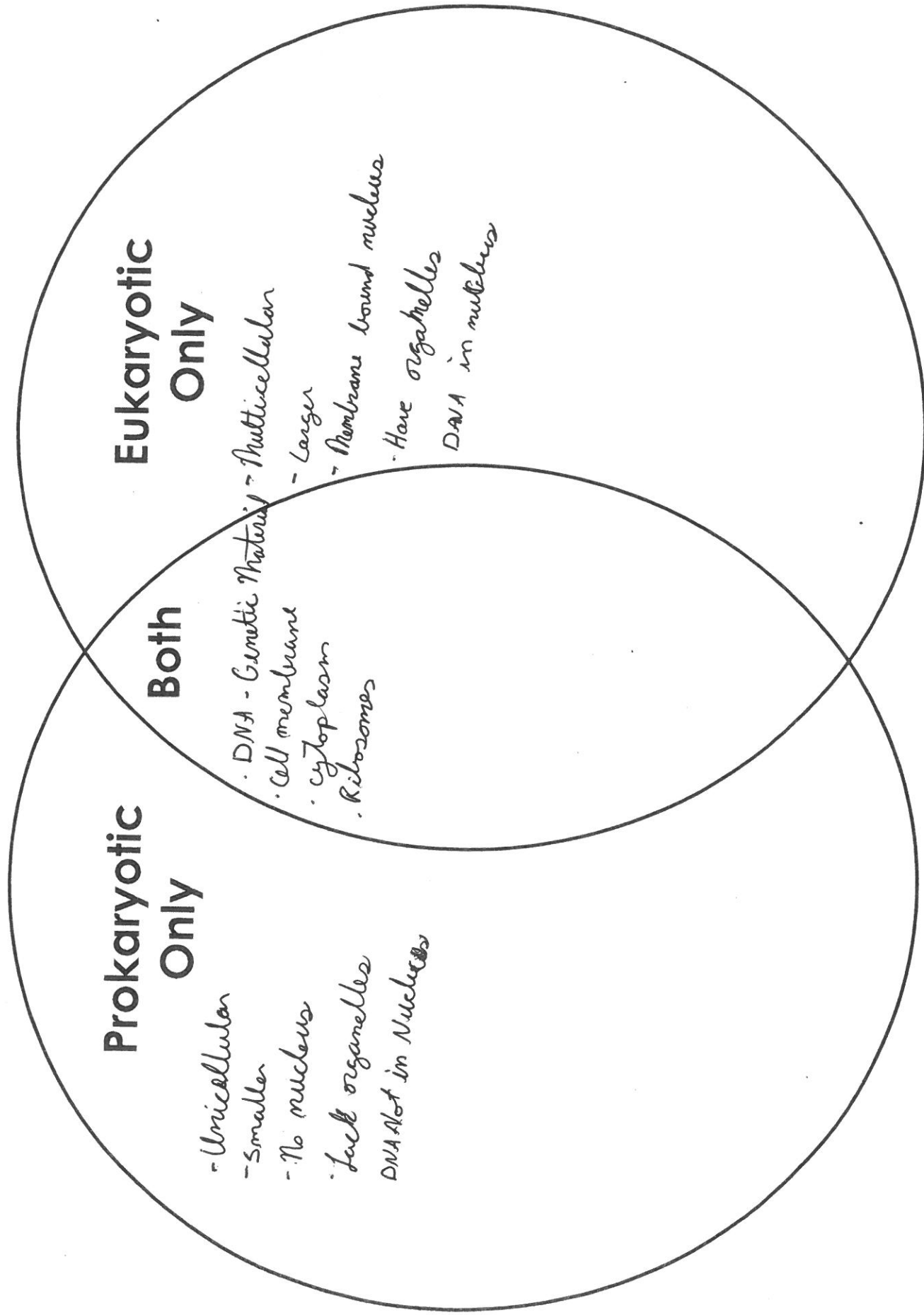
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3.5 ml difference

Conclusion: the hypothesis is supported.

Controlled Variable - the cylinder

Venn Diagram



## Observations

### ① Rabbit testes

- multiple pink ovals
- look like fingerprints

### ② Honey Bee worker leg composite

- Brown
- Hairy
- almost see-through
- Straight hair all in the same direction

### ③ Dog Stomach Secoutary

- Maroon, Pink
- Jingular Cells
- Spaces in between cells

### ④ Dog's cardiac muscle

- purple Specs
- Blurry

Phenylthiocarbamide/chemical PTC 2/20/19

### Hypothesis

I do not believe I am a taster, I will not detect the chemical PTC from a piece of paper.

### Experiment

I put a piece of paper in my mouth.

### Observation & collect data

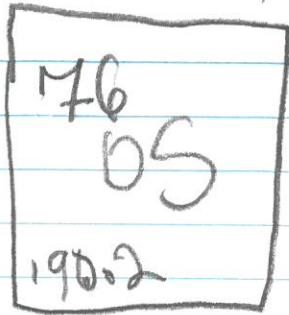
I could not taste PTC from the paper.

6 people tried & 4 people could taste it.  
2 people could not.

### Conclusion

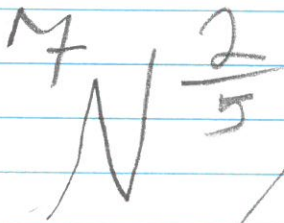
I am not a taster. My conclusion was exactly predicted as stated in my hypothesis.

How many neutrons

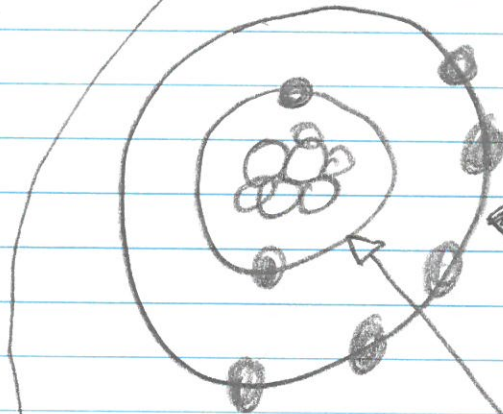


Osmium

$$190 - 76 = 114 \text{ neutrons}$$



Preferred is  $\frac{2}{8}$



The electrons orbit

The outer/second electron orbit will always have 8 slots just cuz it's preferred

The electrons that are closer to the nucleus will always have 2

Osmium is the exception