Name_____ Lab # _____

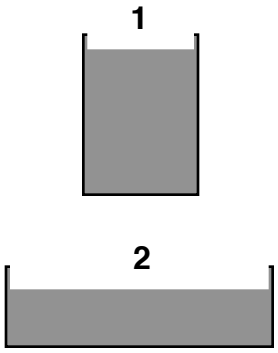
Laboratory Investigation
Evaporation Rates

**Problem**: What factors affect the rate at which water evaporates

**Introduction**: Twelve containers of different shapes and sizes were filled with water. The containers of water were then subjected to different conditions. The amount of water that evaporated from each container was determined and data charts were prepared.

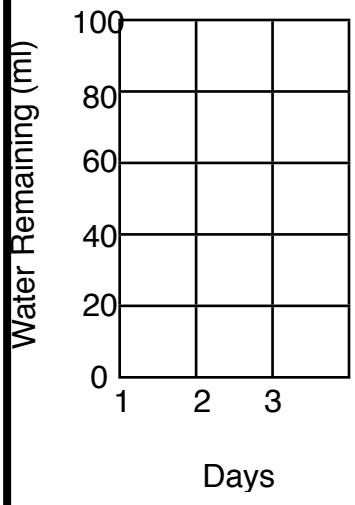
**Procedure:** Use the following information to:
a. draw the appropriate graphs (all values are in ml)
b. answer the questions

**Surface Area**

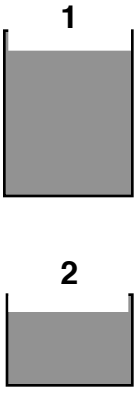



**Surface Area**

| Day | H2O Left 1 | H20 Left 2 |
|---|---|---|
| 1 | 100 | 100 |
| 2 | 90 | 80 |
| 3 | 80 | 60 |

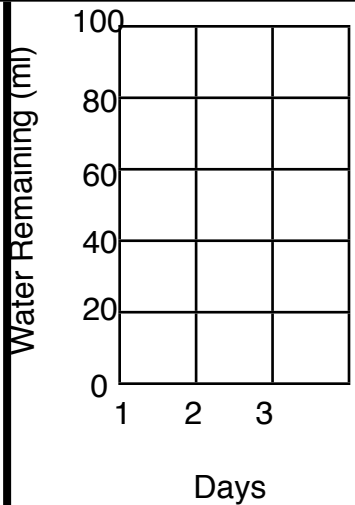



**Volume**




**Volume**

| Day | H2O Left 1 | H2O Left 2 |
|---|---|---|
| 1 | 100 | 50 |
| 2 | 90 | 40 |
| 3 | 80 | 30 |



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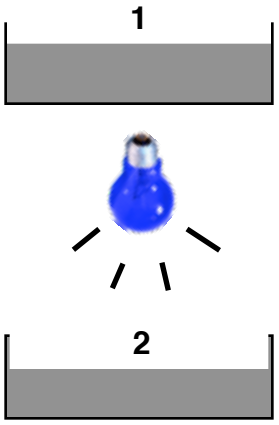
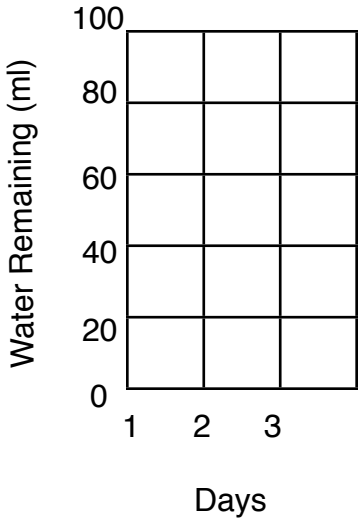
## Heat

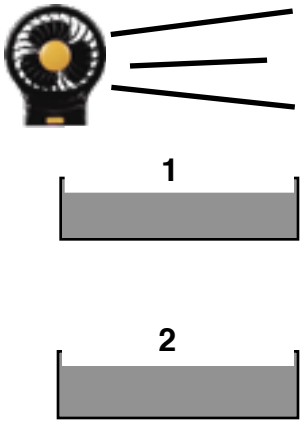



## Heat

| Day | H2O Left 1 | H2O Left 2 |
|---|---|---|
| 1 | 100 | 100 |
| 2 | 90 | 80 |
| 3 | 80 | 60 |

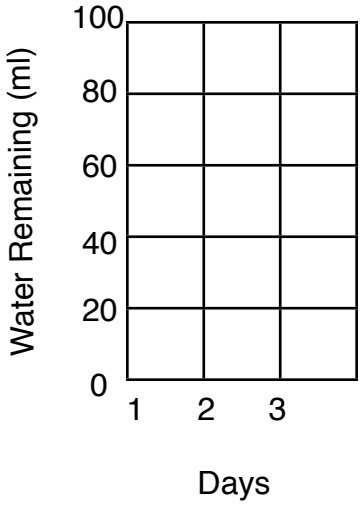



## Wind

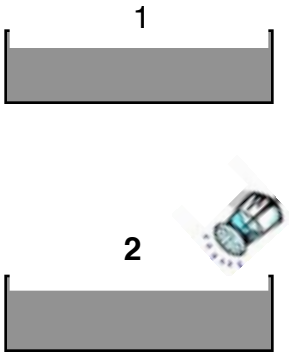



## Wind

| Day | H2O Left 1 | H2O Left 2 |
|---|---|---|
| 1 | 100 | 100 |
| 2 | 70 | 90 |
| 3 | 40 | 80 |

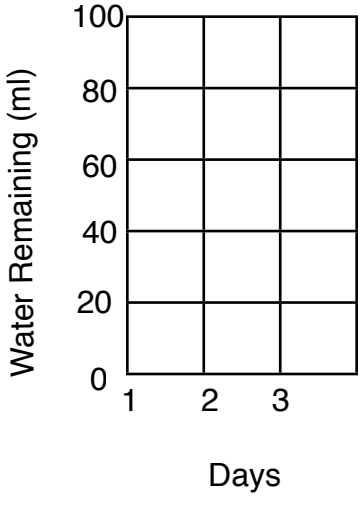



## Dissolved Substances




## Dissolved Substances

| Day | H2O Left 1 | H2O Left 2 |
|---|---|---|
| 1 | 100 | 100 |
| 2 | 90 | 95 |
| 3 | 80 | 90 |



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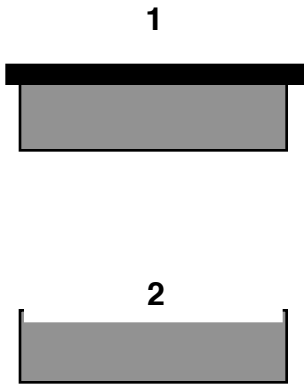
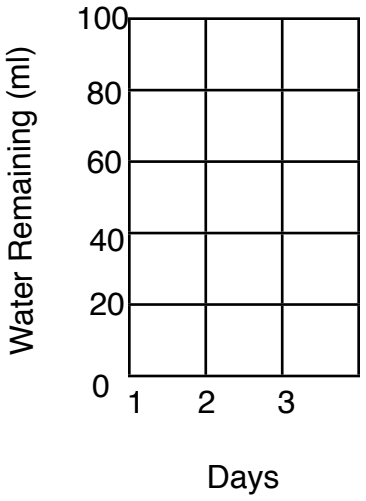
**Covered vs. Uncovered**




**Covered vs. Uncovered**

| Day | H2O Left 1 | H2O Left 2 |
|---|---|---|
| 1 | 100 | 100 |
| 2 | 100 | 90 |
| 3 | 100 | 80 |




*****Remember that Steeper Slope = Greater the rate of change!!!!!!**

Questions

1. As the slope of a graph increases, the rate of change _____
2. From which container did the water evaporate at the fastest rate? _____
3. From which container did the water evaporate at the slowest rate? _____
4. The process by which water gets into the atmosphere is _____
5. Is energy gained or released during evaporation? _____
6. How much energy is required for this phase change? _____
7. As the speed of wind increases, the evaporation rate will _____
8. As the temperature increases, the evaporation rate will _____
9. As the surface area of evaporating water increases, the evaporation rate will _____
10. As the volume of evaporating water increases, the evaporation rate will _____
11. As the amount of cover thats placed over evaporating water increases, the evaporation rate will _____
12. As the humidity (amount of water) in the air above the evaporating water increases, the evaporation rate will _____
13. What type of day would be best for drying wet clothing?

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