**SCIENTIFIC METHOD PRACTICE**

**Directions: List the constants for each experiment.**

1. A heard of goats is divided into two groups. Both groups are housed in the same buildings, fed at the same time each day, and given the same amount of H2O. One gas gets Brand X and the other Brand Y.
2. Place six cups of water in each of 4 identical coffee makers. Add one teaspoon of coffee to the first pot, two to the second pot, three to the third, and four to the last. Brew each batch of coffee for ten minutes.

**Directions: Identify the Variables**: *Circle the Independent Variable, Square the Dependent Variable*

1. Test the prediction: More light plants receive, the taller the plants will grow.
2. The greater amount of salt, the lower the temperature of the mixture.
3. The height of bean plants depend on the amount of water they receive.
4. The time it takes to run a kilometer depends on the amount of exercise a person gets.
5. The higher the temperature of water, the faster the egg will cook.
6. The temperature of the H2O measured at different depths of a lake.
7. An investigation was done to see if keeping the lights on for different amounts of time each day affected the number of eggs chicken laid.
8. Pulse rate increases as exercise is increased.
9. Amount of pollution produced by cars was measured for cars using gasoline containing different amounts of lead.
10. Lemon trees receiving the most water produce the largest lemons.
11. More bushels of potatoes will be produced if they are fertilized more.
12. An experiment was done with 6 groups of children to see if scores on their weekly selling test were affected by the number of minutes of spelling practice they had each day.
13. Will the number of nails picked up by an electromagnet be increased if more batteries are put in the circuit?
14. Your experiment. A person’s pulse rate will not remain the steady as the amount of exercise increases.

**Which of the following are hypothesis?**

1. As more salt is dissolved in water, the cloudier the water.
2. The earth’s crust contains 90 elements.
3. Magnetism and gravity are not the same.
4. If the length of a vibrating string is increased, the sound will become louder.

**Identify each of the statements below that it is stated as a hypothesis.**

1. Baking powder is used in biscuits.
2. The brighter the color of orange, the juicier the fruit.
3. Brass contains copper and zinc.
4. The more antifreeze, the lower the temperature.

**Classify these statements as hypothesis (H) or non-hypothesis (N)**

1. The more cabbage in the stew, the stronger the flavor.
2. Most apples are red.
3. The faster a river flows, the greater the erosion.
4. Dental floss is waxed.
5. As the temperature of its environment increases, the temperature of a cold-blooded animal increases.
6. Glass is harder than iron; therefore glass will scratch anything which is softer than iron.
7. A change in weather causes a change in mood.
8. If clouds act as insulators, then the earth should get colder on cloudless nights.
9. Leaves manufacture food, stems transfer food, and roots store the food in plants.
10. The colder the temperature, the slower the plants grow.
11. The deeper one dives, the greater the pressure.
12. Algae are living organisms.

**NOW** - Write a Hypothesis: write a statement that predicts the outcome if the **amount of**

**light** is one variable and the other is **plant growth**.