**Scientific Method Unit**

**Step 3: Hypothesizing**

A hypothesis is a special kind of prediction that forecasts (predicts) how changing one part of an experiment will affect the results. It is NOT a guess. It is an informed and well-thought out prediction that requires background information. You can also think of it as a cause-effect statement.

A hypothesis is best written in the “If ____________, then ____________.” format. After the “if” is the part the scientist will change on purpose. After the “then” is the result of the change.

Here is an example of a hypothesis:

If the temperature of sea water increases, then the amount of salt that dissolves in the water increases.

Not all questions lend themselves well to the “If ____, then ____.” format. However, almost all of the experiments we will do in this class will work in this format and I **expect to see this format used during the entire year**.

The following are some investigative questions followed by a hypothesis:

Q: What type of pizza is preferred by fourth graders?
H: If fourth graders are questioned about pizza preference, then they will prefer pepperoni.

Q: How does the amount of daylight affect how many eggs laid by a chicken?
H: If the amount of daylight increases, then the chickens will lay more eggs.

Use the given question to write a hypothesis. Remember to use the correct format.

Q: How does room temperature affect student performance?
H:

Q: How does the color of a surface affect its temperature?
H:
**Scientific Method Unit**  
**Hypothesis Writing Practice**

For each of the following questions, write a reasonable hypothesis using the correct format.

1. How will batting practice affect a player’s batting average?  
**HYPOTHESIS:**

2. How does the depth of the Lake of the Ozark affect its temperature?  
**HYPOTHESIS:**

3. How does advertising for can collection week affect the number of cans collected?  
**HYPOTHESIS:**

4. How does the size of a paper towel affect the amount of water it can hold?  
**HYPOTHESIS:**

5. Does fertilizer affect the growth of a plant?  
**HYPOTHEIS:**

6. Does the volume of a container affect how quickly water will evaporate from it?  
**HYPOTHESIS:**