Name_____ Date_____

Science _____ LAB: Scientific Method

Problem/Question:

Will more drops of water fit on the head OR the tail of a penny?

Hypothesis: *(Remember, you are proposing an answer to the problem above.)*

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Experiment/Procedure:

1. Gather the following materials for your group: **penny, pipette, glass beaker filled with tap water, paper towel, and pencil**.
2. Drop water droplets onto the <u>head</u> of a dry penny, counting as you go, until any amount of water spills over the side of the penny. Repeat this step 3 times.
3. Drop water droplets onto the <u>tail</u> of a dry penny, counting as you go, until any amount of water spills over the side of the penny. Repeat this step 3 times.
4. Record data in the table below.

Organize and Analyze Data:

Drops of Water on a Penny

	Trial #1	Trial #2	Trial #3
Head			
Tail			

1. Calculate the average number of drops from the 3 trials:

   a. Head _____ b. Tail _____

2. Did the number of drops differ from head to tail? _____
3. Explain WHY you think it did or did not. Restate & use complete sentences!

_____

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Conclusion:

4. Does your data support your hypothesis? _____

5. State your CONCLUSION using complete sentences. *(Remember, this is a summary of your quantitative data. It will either support or disprove your hypothesis.)*

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Questions:

1. What was the independent/manipulated variable? _____

2. What was the dependent/responding variable? _____

3. What factors were controlled? _____

_____

4. What factors should have been controlled, but were not? (*Challenge*: Try to come up with at at least 10 variables that SHOULD have been controlled!)

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

5. How could you redesign this experiment to obtain more accurate results? Restate and use complete sentences.

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