Name:	Date:	Class:

Scientific Method Foldable Example

Scientific Method-

a series of steps in logical order scientists use to solve a problem.

Problem Step-

State the problem

Research the problem

What do I already know?

What do I want to find out?

Hypothesis Step-

Identify the variables

- -Independent Variable the variable the scientist is testing/changing
- -Dependent Variable (s)- the results
- -State the **Hypothesis** a testable statement based on research and prior knowledge.
- -When writing the hypothesis include the following: the Independent Variable, the Dependent Variable, and state how they will change.

Experiment Step

- -In a controlled experiment the scientist tests only ONE Independent Variable at a time.
- -There needs to be at least one **control group** the group that does not get tested with the Independent variable, it is treated 'normally.'
- -and at least one <u>experimental group</u>- the group that does get tested with the Independent Variable, it is treated 'differently'
- -Gather Qualitative Data- using the 5 senses
- -Gather Quantitative Data- using measurements
- -Gather data BEFORE, DURING, and AFTER the experiment
- -Analyze the data by putting it in a table or graph

Conclusion Step

-State the Hypothesis

evidence support is.

- -Using the data, the scientist will determine if his or hers hypothesis is correct.
- -Summarize the Experiment

Theory Step

If a scientist Hypothesis is test several times and under similar conditions with the same results, then this may lead to a theory. A **theory** is an idea that is accepted as true because so much

The Scientific -Hypothesis
-Experiment- Conclusion-