

Name: _____

Date: _____ Per: _____

Chemistry
Scientific Method WS

- I. *For each of the following situations, list and describe each aspect of the scientific method that is being used and list any aspects that are not used:*
1. Louis Pasteur noticed that soup broth that had been boiled and was placed in an open container would eventually grow bacteria, but when broth was placed in a container with a downward-facing opening, no bacteria would grow.
2. Some of the people that attended a party the previous night became very ill. A doctor thought it may have been caused by spoiled potato salad. She tested the potato salad for bacteria.
3. You try to start up your computer, but when you turn on the power, it beeps three times and the screen stays black. You think the monitor may have gone bad.
4. A college student notices that the grocery store sells a much cheaper 'generic' detergent and wonders if it will clean his clothes as well as the more expensive 'name brand' detergent he uses. He purchases the generic detergent and washes some of his clothes with it and some of his clothes with his original name brand detergent only to find that there is no noticeable difference between how clean they are. He figures if it works just as well, he might as well buy the less expensive generic detergent.

- II. *For each of the following observations, develop a hypothesis and describe a possible experiment that could be performed to support or disprove your hypothesis:*
5. When you leave school to go home in the afternoon, you notice that there is a dent in your car that wasn't there before. There are some streaks of red paint inside the dent.

 6. You find that you tend to get sick when you forget to take your daily vitamins.

 7. You notice that some people are regularly late to Chemistry class while others are always on time.

 8. You notice that a loaf of bread stored in the refrigerator takes longer to develop mold than a loaf of bread stored in the pantry.

 9. Grass growing in your front yard, which has no trees, begins to grow sooner in the spring and turns yellow sooner in the fall. Grass growing in your back yard, which has several trees, takes longer to grow and stays green all year round.