





Name: _____ Date: _____




Independent and Dependent Variables Scenarios

(Manipulated and Responding)

Scenario		Independent Variable	Dependent Variable
1. A cow is given a growth hormone and then compared to another cow that was not given a growth hormone. Both cows were weighed at 2 years.			
2. Mosquito repellent is sprayed on one arm and the other arm is not sprayed. The number of mosquito bites is counted after 2 hours.			
3. One grape is placed in tap water and another grape is placed in salt water. The change in their mass is measured after a day.			
4. Two different cars are traveling at 60 mph. At a certain point, both cars slam on the brakes. The distance it takes for each car to stop is then measured.			




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6. A stapler is used to staple 100 papers, it jams 5 times during the trial. A different brand of stapler performs the same test; it jams 22 times.			
7. Cockroaches are exposed to a pesticide. After 3 hours, 95% of the insects are dead.			
8. Two plants are grown using the same light and pots. One plant is given water that has been microwaved and the other plant is given regular tap water. Their height is measured after 2 weeks.			

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<p>10. An apple is cut into slices. Half of the slices are sprayed with lemon juice. All slices are stored in a sealed plastic bag. After 4 days, they are observed to see how brown they turned.</p>			
<p>11. The respiration rate of a goldfish is measured. The goldfish is then placed in cold water and the respiration rate is measured again.</p>			
<p>12. Bacteria are grown in a petri dish. One side of the dish is sprayed with an antibiotic. After a week, the number of bacteria colonies are counted on each side.</p>	