

Name _____ Period _____ Date _____ Seat _____

Mass & Change/ Experimental Design Study Guide

Objectives: Explain the following:	Define or give an example
1. constants	
2. variables	
3. experimental group	
4. control group	
5. The experimental control	
6. data table	
7. independent variable	
8. dependent variable	
9. cause	
10. effect	
11. hypothesis	
12. inductive reasoning	
13. inference	
14. observation	
15. phenomenon	
16. qualitative data	
17. quantitative data	
18. mass	
19. matter	
20. reactant	,
21. product	
22. $A + B \rightarrow C + D$	
23.	

Explain the following	Use words or drawings or both. You may use examples. Yes and no are not acceptable answers.
24. I can explain what the following statement means in terms of cause and effect: The effect of dog food on the growth of a puppy.	
25. I can explain how an experiment is controlled so that the only the independent and dependent variables change.	
26.3. Represent class data using a histogram; use the histogram to interpret trends in the data. Sketch a sample at right	
27. I can interpret data tables	
28. I can express data graphically.	
29. I can formulate an experimental hypothesis based on the independent and dependent variables.	
30. I can compare and contrast an open system and a closed system.	
31. I can defend a conclusion recognizing whether or not it supports or rejects a hypothesis.	
32. Develop, from experimental evidence, the law of conservation of system mass.	
33. I can distinguish between physical and chemical changes	dissolving salt in water _____, burning wood _____, cooking an egg _____, rusting iron _____, boiling water _____, milk goes sour _____, six things from the mass & change experiment: