Integrated Science Unit 1 Study Guide   Name _____

Branches of Integrated Science
Matching
_____ 1.   The study of outer space   A. geology
_____ 2.   Uses the Metric System   B. all sciences
_____ 3.   Records & explains the motions of the Earth's atmosphere   C. astronomy
_____ 4.   Evaluates the laws of nature   D. physics
_____ 5.   Determines the best place to drill for oil   E. meteorology
_____ 6.   The study of matter   F. chemistry
_____ 7.   The study of hurricanes

Metric Conversions   (king Henry died by drinking chocolate milk)
8. Complete this metric line:

_____   hector   decka   base   _____   _____   milli

_____
_____   _____   10   _____   0.1   _____   _____

Calculate the following problems:
9.   4.6 liters = _____ milliliters   13.   4.2 l = _____ kl
10. 250 cm = _____ dm   14. 10.3 kl = _____ dal
11. 90 ml = _____ dl   15. 1 dg = _____ kg
12. 7 cm = _____ m   16. 1 hg = _____ g

Metric Measurements   (l x w) = square   (L x W x H) = solid volume
   17. _____ cm^2
   18. _____ mm
   19. _____ cm   18. _____
   20. _____ dm
   21. _____ mm^2 19. _____

                                                 20. _____

Density Measurements
22. A 100 gram rock has a volume of 70 cubic centimeters. What is its density? _____
23. A rock has a volume of 30 ml & a mass of 60 grams. What is its density?   _____
24. A rock has a density of 2.5 g/ml & a volume of 30 ml. What is its mass?   _____

Scientific Method
Matching
_____ 25. the question or problem you are trying to answer   A. conclusion
_____ 26. information obtained from observations   B. analysis
_____ 27. judgment or decision based upon your analysis   C. data
_____ 28. an educated guess   D. observation
_____ 29. an orderly process used to solve a problem or answer a   E. problem
             question.   F. experiment
_____ 30. an organized activity used to prove or disprove an hypothesis   G. hypothesis
                                                                        H. Scientific Method

31. List the 5 steps of the scientific method in order:

    1. _____   2. _____

    3. _____   4. _____

    5. _____

32. ***Scientific Notation***

    a. 0.012 = _____ x 10   b. 123.56   = _____ x 10

    c. 1.200034 = _____ x 10   d. 0.0000131 = _____ x 10

33. ***Conversion***

    a. 1.2 g = _____ kg   b. 567 hm = _____ mm

    c. 3.41 l = _____ dal   d. 0.230 cg = _____ dg

34. What depends on the # of atoms that makes up an object _____   A. density

35. This depends on mass ----- by volume (m/v) _____   B. volume

36. The displacement of an object is known as _____   C. mass

37. Significant Figures

    a. 1.60 has _____ significant figures

    b. 16.00 has _____ significant figures

    c. 1.6308 has _____ significant figures

    d. scientific notation of 1.1 x 10^3 has _____ significant figures

    e. 1.638 is more or less precise than 1.63 _____

38. Know the difference between precision & accuracy.