Chapter 1 Study Guide

1. What student-provided materials are students required to come to class with each day?

2. When the bell rings, where should you be and what should be out on your desk?

3. Where should personal electronics and food be stored before walking through the classroom door?

4. Describe the hood policy and explain why cellphones, headphones, and wearing hoods are not allowed in the classroom?

5. When are Mr. Swart's office hours?

6. What is the web address for the class website?

7. How often should the class website be visited?

8. What should you do if you miss class?

9. When is it acceptable to talk with a classmate about something off-topic?

10. Describe the bathroom policy.

11. What percent of the overall grade comes from lab reports?

12. When are lab reports due?

13. How is the grade affected if a lab report is turned in late?

14. If a student is absent on a lab day, when must it be made up?

15. What is the drop / re-assessment policy for mini-quizzes, chapter tests, and unit exams?

16. What is the grading scale?

17. When is it OK to touch lab materials and equipment?

18. When is it OK to touch your eyes or mouth in the lab?

19. Explain the location of the following safety equipment: eyewash station, safety shower, fire extinguisher, fume hood, and safety blanket.

20. What personal protective equipment (PPE) should be worn to protect the following: eyes, clothes, hair, hands, feet.

21. How will you know which PPE should be worn during a lab?

22. What should you do in the event of an accident, regardless of the magnitude?

23. How can you safely determine if a recently heated piece of glassware is cool enough to handle?

24. You are using a hot plate when the fire alarm goes off. What should you do?

25. What materials are safe to dispose of down the sink? What do you do if you are unsure?

26. A student would rather not wear school-provided safety goggles (ANSI/ISEA Z 87+ D3). What are her options?

27. Is it ever safe to eat or drink in the chemistry lab?

28. How should your lab space look after finishing a lab?

29. What is a hood used for in the chemistry laboratory?

30. What is a fire blanket used for?

31. What is chemistry?

32. How do you know an observed change involves chemistry?

33. Describe how you could prove that air is matter.

34. Write down 3 things that are matter and three things that are not matter. Explain your reasoning.

35. Describe the proper way to read the volume of a liquid in a graduated cylinder.

36. Describe two ways to determine the volume of a solid object.

37. Can you predict the mass of an object just by looking at it? Explain.

38. Suppose you have two cubes of exactly the same volume. You weigh them and find a mass of 8.91 g for one cube and 8.88 g for the other cube even though they are made of the same material. How is this possible?

39. Two objects have a mass of 5.0 g. One has a density of 2.7 g/cm^3 and the other has a density of 8.4 g/cm^3. Which object has a larger volume. Explain your thinking.

40. Explain how density can be used to determine if the golden penny we created in the lab demonstration is made of solid gold.

41. How does the density of one penny compare with the density of four pennies?

42. Archeologists discover a silver crown in an ancient tomb. When they place the crown in a tub of water, it displaces 145 cm^3 of water. The density of silver is 10.5 g/cm^3. If the crown is really silver, what will its mass be?

43. Archeologists discover a silver crown in an ancient tomb. The mass is measured to be 54 g. The density of silver is 10.5 g/cm^3. If the crown is really silver, what will its volume be?

44. Archeologists discover a silver crown in an ancient tomb. When they place the crown in a tub of water, it displaces 238.1 cm^3 of water. The mass is measured to be 54 g. The density of silver is known to be 10.5 g/cm^3. Is the crown really silver?

45. How many milliliters are in one liter?

46. How many centimeters are in one meter?

47. How many grams are in one kilogram?

48. Which metric base unit (meter, liter, or gram) should be used to measure the following:
    a. Mass

    b. Distance

    c. Volume

49. Is density in intensive or extensive property? How do you know?