Physical Science

1st Quarter Review Guide

Directions: Answer the following questions on a separate sheet of paper.

LAB SAFETY

1. State the 6 “ALWAYS” safety rules.

2. List the 6 most important “NEVER” lab safety rules.

3. Name the 4 items that are used for lab safety and their locations in the lab.

LAB EQUIPMENT

4. Draw the following lab tools:

a. beaker e. Erlenmeyer flask j. eyedropper

b. graduate/graduated cylinder f. Bunsen burner k. triple beam balance

c. thermometer g. test tube l. funnel

d. meter stick h. safety goggles m. ring stand

5. State the primary use of each item listed above in #4.

MEASUREMENT

6. State the meaning of the letters in SI.

7. List the 6 base prefixes of SI, their symbols, and the numbers they represent.

8. State the base units of ? in SI.

a. mass b. length c. volume d. temperature

9. List the SI unit of volume for a:

a. solid b. liquid c. irregular solid d. regular solid

10. State the memory clue for a:

a. gram b. Liter c. meter d. cubic centimeter.

11. Solve the following conversions:

a. 21.5 mL = ? L

b. 0.417 kg = ? cg

c. 72.3 cm = ? m

d. 5.06 g = ? mg

12. Choose the best estimate for the following measurements:

a. mass of a grain of salt a. 1g b. 1 kg c. 1 mg

b. capacity of an eyedropper a. 20 L b. 20 kL c. 20 mL

c. mass of a cement block a. 15 kg b. 15 g c. 15 mg

d. length of a pencil a. 1 m b. 1 dam c. 1 dm

e. volume of a gas can a. 5 L b. 5 mL c. 5 hL

f. length of a envelope a. 20 mm b. 20 cm c. 20 m

g. temperature of a room a. 98°C b. 98°F c. 98 K

h. temperature in a refrigerator a. 35°C b. 35°F c. 35 K

13. Solve the following problems.

a.) 125 / 4 b.) 15 / 72 c.) 0.228 x 1.6 d.) 2,500 ÷ 0.13

14. Write the following numbers as regular numbers from scientific notation.

a.) 1.47 x 10+8 b.) 4.8856 x 10+5 c.) 0.1296 x 10+1 d.) 2.00 x 10-3

15. Express the following numbers in scientific notation:

a.) 4,500 b.) 3,784 c.) 00.000253878 d.) 14,789,321,000

16. Write conversion factors using the following units:

a.) in, feet b.) fl oz., pt c.) oz, lb d.) yd, in

17. Perform the following conversions showing all work necessary.

a.) 725 gal = ? fl oz.

b.) 137 miles = ? in

c.) 737 min = ? hours

d.) 375 quarters = ? dollars

18. Write the following conversion factors:

a.) cm, mm b.) hg, dag c.) daL, dL d.) mg, g

19. Perform the following conversions showing all work:

a.) 237 g = ? kg

b.) 0.873 L = ? cL

c.) 245.8 daL = ? hL

3.) 145,000km = ? m

20. Perform the following conversions showing all work:

a.) 13.28 km = ? miles

b.) 978 ft = ? cm

c.) 276 gal = ? dL

d.) 8.35 hg = ? lb