***Matter and How it Changes - Chapter 13 pages 486-489 Study Guide***

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Homeroom: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Which is heavier – 20 cm3 of lead or 20 cm3 of mercury? Why?\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. How is matter defined? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Define physical property - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. **[True or False]** You can describe the physical property of a magnet as magnetic

5. What are the **three** physical properties that apply to ALL substances?

 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the amount of mass something has in relation to its volume.

7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the amount of space something takes up.

8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the amount of matter something has.

9. What are the two ways **mass** can be measured?

 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. What are the six ways that **volume** can be measured?

 1. \_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_ 3. \_\_\_\_\_\_\_\_\_\_\_\_

 4. \_\_\_\_\_\_\_\_\_\_\_\_ 5. \_\_\_\_\_\_\_\_\_\_\_\_\_ 6. \_\_\_\_\_\_\_\_\_\_\_\_

11. Write the mathematical formula to solve for density.

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12. **[True or False]** Any substance will float on a liquid that has a lower density than it does.

13. Describe how you could calculate the volume of a rock using the following materials: a rock, a cylinder and water.

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15. What is the density of helium? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

16. You have two objects both made of solid iron (Fe). Object A has a much greater volume than Object B. **How would the densities of the objects compare? Why?** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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17. How do you find the mass of an object? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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18. You have a stuffed animal that big, round, fluffy and adorable. Which of the traits mentioned are physical properties? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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19. How can you tell that air in a hot air balloon is matter? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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20. What happens if you keep breaking a pure substance down into smaller pieces? What do you eventually get? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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