

## Chapter 2 Practice Test: The Nature of Matter

Write the best answer and please print neatly. Be sure to be specific and complete in your answer.

1. What is matter?
2. What is a **Characteristic Property**? (General description)
3. List 3 **Physical Properties** of matter (use bullet points).
4. List 2 different **Chemical Properties** of matter (use bullet points).
5. How **many** properties should you study to identify a substance? Explain.
6. List 2 categories (types) of **Pure Substances** (use bullet points).
7. List 2 categories (types) of **Mixtures** (use bullet points).
8. Is it a **Mixture** or a **Pure Substance**? For the following things, write substance or mixture in the given space.
  - a. Grape Juice \_\_\_\_\_
  - b. Sand \_\_\_\_\_
  - c. Sugar \_\_\_\_\_
  - d. Gold \_\_\_\_\_
  - e. Seawater \_\_\_\_\_
9. What are 2 reasons why a **solution** is a **mixture** and **not** a pure substance? List 2 reasons (number list).
10. What is the **main** difference between a Physical Change and a Chemical Change?
11. Explain why changing the **state of matter** (liquid water to vapor) is **not a chemical change**?

12. According to the **Law of Conservation of Matter**, explain how a chemical reaction that forms a new product doesn't create or destroy any matter. Please use **ATOMS AND COMPOUNDS** in your answer.

13. What is Energy?

14. Explain how the **flow** of **thermal energy** transforms an ice cube into water.

15. List 3 different forms of energy **AND** provide a specific example of each type (use bullet points).

**Form of Energy**

**Example**

16. **List** all possible **energy transformations** (changes in energy form) that occur from the sun shining on a leaf during which Photosynthesis takes place, and a caterpillar eats the leaf. Please use bullet points.

**Use the diagram below to answer questions 18-20. Please use the diagram (shows various pictures of pure substances and mixtures) in your textbook on page 82 (Under Applying Skills section). Look at only pictures B, C, D.**

17. Which diagram represents a mixture? \_\_\_\_\_

18. Which diagram is a compound? \_\_\_\_\_

19. Which diagram represents an element? \_\_\_\_\_

20. What is temperature and how is it used to measure thermal energy?