

Name: _____

Homeroom: _____

Worksheet on Properties of Matter

LO: Describe types of matter according to their chemical & physical properties. SLE: Meet NGSS.

You are encouraged to consult your textbook (*Introduction to Matter*) and each other in completing this worksheet! Hint: physical properties and changes are covered in Section 2 of Chapter 1 (pages 10-15), while chemical properties and changes are covered in Section 3 of Chapter 1 (pages 16-21). You may have to hop around to answer questions that cover both physical and chemical issues.

(1) Physical and chemical properties! Complete the following table.

	Definition	2 examples
Physical property		
Chemical property		

(2) Characteristic properties!

(a) What is a **characteristic property**?

(b) Can a characteristic property be physical, chemical, either, or neither?

(c) Let's consider whether **density** qualifies as a characteristic property. Look at Table 1 on page 13 of your book. Based on this information, explain how you could use density to identify an unknown substance.

(3) Physical and chemical *changes!*

(a) Complete the following table.

	Definition	2 examples
Physical change		
Chemical change		

(b) Is each of the following a likely sign of a chemical (C) change or a physical (P) change, or both (C+P)?

- _____ Change in color
- _____ Change in odor
- _____ Creation of gas (fizzing, bubbling)
- _____ Change in temperature
- _____ Creation of light
- _____ Creation of sound (e.g., explosion)
- _____ Cannot easily be reversed

Homework: on a separate piece of paper, complete the following questions on pages 24 and 25:

- 5, 6, 7, 8, 9, 10, and 11
- 15, 16, and 17
- 22 and 23