Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_ Ast: \_\_\_\_\_

**CLASSIFYING MATTER STUDY GUIDE**

**8th Grade Science**

Respond to the following prompts on your own sheet of notebook paper:

1. **TYPES OF MATTER**
2. Why do we say that “everything” is made of “matter”? (*What role do atoms play?*)
3. What are the three types of matter.
4. How are the three types of matter related to one another?
5. Identify the following examples as one of the three types of matter:
	1. Beach Sand (*a collection of small particles of various kinds of rock & sediment*)
	2. Ocean Water (*a solution of H2O and NaCl [aka: saltwater]*)
	3. Limestone Rock (*a rock made of calcium carbonate [*CaCO3*]*)
	4. Aluminum Can (*an object made of Aluminum [*Al*]*)
	5. Spring Water (*a liquid consisting of* H2O)
	6. Steel Boat (*a solid object consisting mostly of iron* *[*Fe*], carbon [*C*], and other metals*)
6. **PROPERTIES OF MATTER**
7. How do we observe physical properties?
8. Describe the following physical properties:
	1. Conductivity (thermal or electrical)
	2. Solubility
	3. Magnetism
	4. Melting Point & Boiling Point
9. Which of the above physical properties are independent of the sample size (they do NOT depend on the amount of the sample)?
10. **STATES OF MATTER**
11. Explain how the motion of the particles in a substance affects the state/phase of matter.
12. How is the shape and volume of a substance influenced by the state (solid, liquid, gas)?
13. Explain how the diagram below communicates the ideas of solid, liquid, and gas states of matter.
14. How can you use the term, “viscosity,” to describe a liquid?