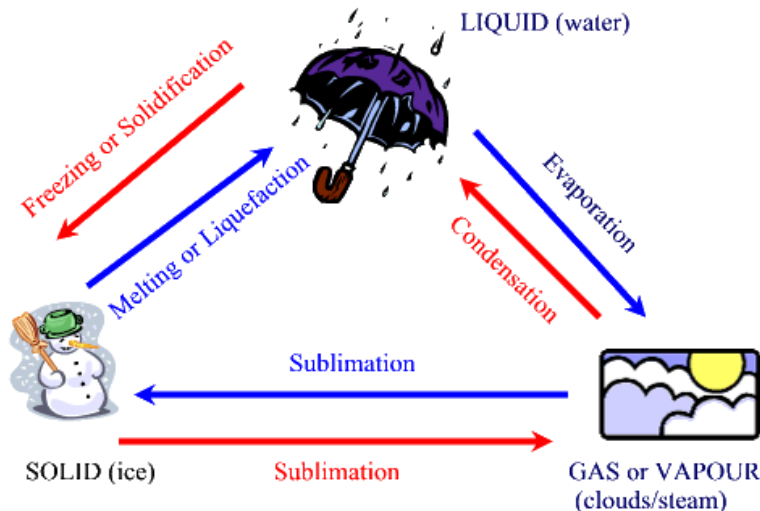


NAME: \_\_\_\_\_

# Properties of Matter Worksheet KEY

1. Fill out the picture below



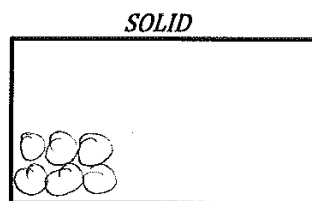
2. Iodine is a solid with somewhat lustrous, blue-black crystals. The crystals sublimes easily to a gas which is violet in color. Iodine, like chlorine, combines with many metals. For example, aluminum combines with iodine to give aluminum iodide.

Identify each of these characteristics of iodine as physical and chemical properties.

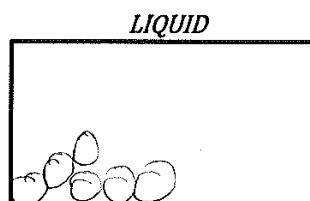
Physical properties of Iodine: solid, lustrous, blue - black, violet gas forms upon vaporization

Chemical Properties of Iodine: ability to react with metals, ability to react with aluminum

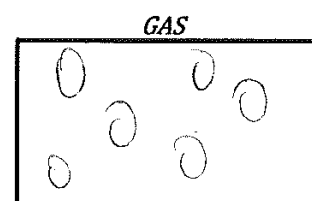
3. I



- PARTICLES ARE CLOSELY PACKED
- THEY ONLY VIBRATE, DO NOT MOVE
- FIXED VOLUME AND FIXED SHAPE



- PARTICLES ARE TOUCHING BUT THEY CAN MOVE A LITTLE (FLOW PAST EACH OTHER)
- FIXED VOLUME AND TAKE SHAPE OF A CONTAINER



- PARTICLES ARE SEPARATED BY LARGE SPACES AND MOVE FREELY
- TAKE SHAPE AND VOLUME OF A CONTAINER

4. Read each statement below, and identify if the statement deals with a chemical or physical property. Write PP (physical property) or CP (chemical property) next to the statements to give your answer. If it is a physical property, write whether it is an Extensive (E) or Intensive (I) property.

- a. Copper turns green when exposed to the environment. **CP**
- b. The density of water is 1.0 gram per cubic centimeter. **PP (I)**
- c. The tree is 8 meters high. **PP (E)**
- d. Copper conducts electricity. **PP (E)**
- e. The mass of the NaCl sample is 30 grams. **PP (E)**
- f. Vitamin C tablets react with water to produce gas. **CP**
- g. Iron reacts with oxygen and forms rust. **CP**
- h. Baking soda reacts with vinegar. **CP**
- i. Oxygen is a gas. **PP (I)**
- j. Nitrogen is a colorless gas. **PP (I)**
- k. The piece of metal is magnetic. **PP (I)**
- l. Silver necklaces tarnish and turn green. **CP**