

## Worksheet: Classifying Matter

1. Identify each as a pure substance (PS) or mixture (M). Include a reason for each.

- (A) lettuce & tomato salad: \_\_\_\_\_ because \_\_\_\_\_  
(B) air: \_\_\_\_\_ because \_\_\_\_\_  
(C) wood shavings: \_\_\_\_\_ because \_\_\_\_\_  
(D) pond water: \_\_\_\_\_ because \_\_\_\_\_  
(E) chalk: \_\_\_\_\_ because \_\_\_\_\_  
(F) sugar water: \_\_\_\_\_ because \_\_\_\_\_

2. Identify each as a solution (S) or heterogeneous mixture (HM). Include a reason for each.

- (A) grape juice: \_\_\_\_\_ because \_\_\_\_\_  
(B) toothpaste: \_\_\_\_\_ because \_\_\_\_\_  
(C) styrofoam container: \_\_\_\_\_ because \_\_\_\_\_  
(D) cottage cheese: \_\_\_\_\_ because \_\_\_\_\_  
(E) paper clip: \_\_\_\_\_ because \_\_\_\_\_  
(F) Italian salad dressing: \_\_\_\_\_ because \_\_\_\_\_

3. Indicate whether each statement is true (T) or false (F) according to the Particle Theory of Matter. If it is false, explain why.

- \_\_\_\_\_ (A) Matter is made of particles.  
\_\_\_\_\_  
\_\_\_\_\_ (B) All substances are made of the same kind of particles.  
\_\_\_\_\_  
\_\_\_\_\_ (C) The particles of matter are in motion.  
\_\_\_\_\_  
\_\_\_\_\_ (D) Cooling speeds up the motion of particles.  
\_\_\_\_\_  
\_\_\_\_\_ (E) Particles all move in one direction.  
\_\_\_\_\_  
\_\_\_\_\_ (F) The particles of matter are separated by air.  
\_\_\_\_\_  
\_\_\_\_\_ (G) The spaces between the particles get smaller as matter is heated.  
\_\_\_\_\_  
\_\_\_\_\_ (H) Particles of matter are attracted to each other.  
\_\_\_\_\_  
\_\_\_\_\_ (I) Cooling matter weakens the attractions between particles.  
\_\_\_\_\_  
\_\_\_\_\_ (J) As matter is cooled, the particles shrink.  
\_\_\_\_\_