

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.
