

Conservation of Mass Quiz

1. The amount of matter in an object is its _____.
2. State the law of conservation of mass.
3. True or false: Mass is conserved in physical but not chemical changes in matter.
4. When you burn a candle, all that remains is a small puddle of wax. The puddle of wax has less mass than the original candle. The rest of the original candle's mass was
 - a) destroyed.
 - b) changed to gases.
 - c) measured incorrectly.
 - d) none of the above
5. A puddle of water slowly shrinks in the sun. After a few hours, the puddle has dried up completely. Is this an exception to the law of conservation of mass? Why or why not?
6. True or false: An astronaut weighs much less on the moon than on Earth because he has much less mass on the moon.
7. Assume that 3 g of compound A react with 6 g of compound B. A solid is produced in the reaction, and some gas is also released. The solid has a mass of 2 g. What is the mass of the gas that was released in the reaction? How do you know?
8. Density is a measure of the amount of mass in a given volume of a substance. Assume that you freeze a given mass of liquid water. The ice that results has a lower density than the water did before it froze. What explains this difference in density?
9. True or false: Fire destroys the mass of the fuel that it burns.

10. True or false: The products of a chemical reaction can never have greater mass than the reactants.