



# Properties of Matter

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Grade: Grade 5

## Part A: Fill in the Blank

Write the missing word or number on each line.

1. The law of conservation of mass states that matter cannot be created or \_\_\_\_\_.
2. In any chemical reaction the total mass \_\_\_\_\_ the reaction equals the total mass after.
3. When wood burns, the mass of the ash plus the mass of the \_\_\_\_\_ equals the mass of the original wood.
4. A physical change alters the \_\_\_\_\_ or state of matter but not its chemical makeup.
5. A chemical change produces a new substance with different \_\_\_\_\_ than the original.
6. Melting, freezing, and evaporating are all examples of \_\_\_\_\_ changes.
7. Rusting occurs when iron reacts with \_\_\_\_\_ and water to form iron oxide.
8. The total mass of reactants always \_\_\_\_\_ the total mass of products in a closed system.
9. Measuring the \_\_\_\_\_ of an object before and after a change helps prove conservation of mass.

## Part B: Matching

Match each item on the left to the correct answer on the right.

1. Match each item to its correct answer.

Ice melting



\_\_\_\_\_

Physical change  
– salt particles  
mix with water  
but remain salt

Baking soda and  
vinegar



\_\_\_\_\_

Physical change  
– solid water  
becomes liquid  
water but stays  
H<sub>2</sub>O

Dissolving salt

Chemical

## Answer Key · Properties of Matter · Grade: Grade 5

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### Part A: Fill in the Blank

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Write the missing word or number on each line.

1. The law of conservation of mass states that matter cannot be created or destroyed .
2. In any chemical reaction the total mass before the reaction equals the total mass after.
3. When wood burns, the mass of the ash plus the mass of the gases equals the mass of the original wood.
4. A physical change alters the appearance or state of matter but not its chemical makeup.
5. A chemical change produces a new substance with different properties than the original.
6. Melting, freezing, and evaporating are all examples of physical changes.
7. Rusting occurs when iron reacts with oxygen and water to form iron oxide.
8. The total mass of reactants always equals the total mass of products in a closed system.
9. Measuring the mass of an object before and after a change helps prove conservation of mass.

### Part B: Matching

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Match each item on the left to the correct answer on the right.

1. Match each item to its correct answer.

Ice melting	→ <u>Physical change — solid water becomes liquid water but stays H<sub>2</sub>O</u>	Physical change — salt particles mix with water but remain salt
Baking soda and vinegar	→ <u>Chemical change — produces carbon dioxide gas and a new compound</u>	Physical change — solid water becomes liquid