



Chemical and Physical Changes

Name: _____

Date: _____

Grade: Grade 5

Part A: Multiple Choice

Circle the best answer for each question.

1. Mia wants to test if heating sugar causes a chemical change. Which result would best prove a chemical change happened?

- A) The sugar melts into a clear liquid that hardens again
- B) The sugar turns dark brown and gives off a burnt smell
- C) The sugar feels warm to the touch after heating
- D) The sugar dissolves quickly in water afterward

2. To test whether mixing two substances is a chemical change, which observation would be the strongest evidence?

- A) The mixture takes up less space than before
- B) The mixture feels colder when stirred
- C) Bubbles of a new gas form steadily as they mix
- D) The mixture appears slightly cloudy at first

3. Which experiment best tests whether dissolving salt in water is a physical or chemical change?

- A) Taste the water before and after adding the salt
- B) Evaporate the water and check if salt is recovered
- C) Measure how cloudy the salt water becomes over time
- D) Stir the mixture longer to dissolve all the salt

4. Leo wants fair evidence about whether a reaction conserves mass. What is the most important step in his experiment?

- A) Use a stopwatch to time how long the reaction takes
- B) Use the largest possible amount of each reactant
- C) Seal the container so no gas products can escape
- D) Stir the mixture quickly with a metal spoon

Part B: Fill in the Blank

Write the correct answer on each line.

1. In a fair experiment, you should change only one _____ at a time so you know what caused the result.

2. To prove a chemical change happened, look for clues like new color, gas bubbles, smell, or new _____ formed.

Part A: Multiple Choice

Circle the best answer for each question.

1. Mia wants to test if heating sugar causes a chemical change. Which result would best prove a chemical change happened?

- A) The sugar melts into a clear liquid that hardens again
- B) The sugar turns dark brown and gives off a burnt smell
- C) The sugar feels warm to the touch after heating
- D) The sugar dissolves quickly in water afterward

2. To test whether mixing two substances is a chemical change, which observation would be the strongest evidence?

- A) The mixture takes up less space than before
- B) The mixture feels colder when stirred
- C) Bubbles of a new gas form steadily as they mix
- D) The mixture appears slightly cloudy at first

3. Which experiment best tests whether dissolving salt in water is a physical or chemical change?

- A) Taste the water before and after adding the salt
- B) Evaporate the water and check if salt is recovered
- C) Measure how cloudy the salt water becomes over time
- D) Stir the mixture longer to dissolve all the salt

4. Leo wants fair evidence about whether a reaction conserves mass. What is the most important step in his experiment?

- A) Use a stopwatch to time how long the reaction takes
- B) Use the largest possible amount of each reactant
- C) Seal the container so no gas products can escape
- D) Stir the mixture quickly with a metal spoon

Part B: Fill in the Blank

Write the correct answer on each line.

1. In a fair experiment, you should change only one variable at a time so you know what caused the result.
2. To prove a chemical change happened, look for clues like new color, gas bubbles, smell, or new substance formed.
3. To check conservation of mass, weigh the reactants before mixing and weigh the products after they react.