

# Physical and Chemical Properties

## Engage

**Materials:** various colors and shapes of paper

### What To Do:

1. Take a look at the pieces of paper your teacher gives you.
2. List some characteristics that describe them in the space below.

3. Place the papers into groups.
4. How did you choose the group?

5. Place the papers into different groups.
6. How did you choose the group?

## Explore

**Materials:** **Part 1** - 1 sheet of paper, scissors, rubber band, unsharpened pencil, pencil sharpener **Part 2** - baking soda, vinegar, portion cup, plastic spoon, graduated cylinder, portion cup, whole milk, vinegar

### Part 1

#### What To Do:

1. Change the sheet of paper by crumpling it into a ball.

Do you still have paper? \_\_\_\_\_

What changed? \_\_\_\_\_

2. Open up the sheet of paper and fold it in half.

Do you still have paper? \_\_\_\_\_

What changed? \_\_\_\_\_

3. Use the scissors and cut the paper into 4 pieces.

Do you still have paper? \_\_\_\_\_

What changed? \_\_\_\_\_

4. Take the rubber band and stretch it out.

Do you still have a rubber band? \_\_\_\_\_

What changed? \_\_\_\_\_

5. Sharpen the pencil.

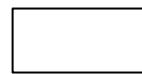
Do you still have a pencil? \_\_\_\_\_

What changed? \_\_\_\_\_

6. Shade in a shape on the paper with the pencil.

Do you still have paper and pencil? \_\_\_\_\_

What changed? \_\_\_\_\_



## Part 2

**Materials:** baking soda, vinegar, portion cup, plastic spoon, graduated cylinder

### What To Do:

1. Place 1 spoonful of baking soda in the portion cup.
2. Use the graduated cylinder to place 30mL of vinegar on the baking soda.
3. Describe what you observe below.

**Materials:** portion cup, vinegar, whole milk, plastic spoon

### What To Do:

1. Cover the bottom of the portion cup with the whole milk.
2. Use the graduated cylinder to place 30mL of vinegar in the milk.
3. Stir with the spoon.
4. Describe what you observe below.

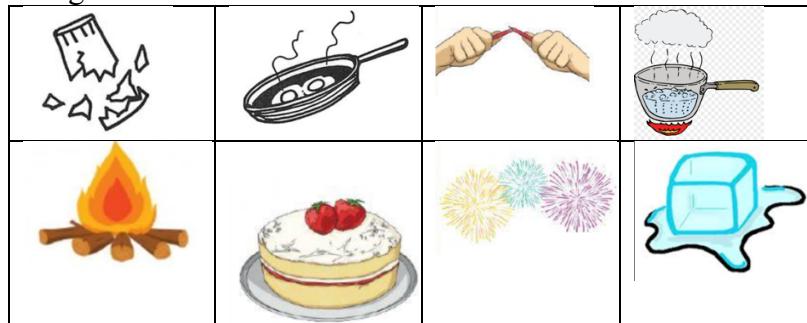
*Explain*

## CHANGES IN MATTER

### PHYSICAL CHANGE

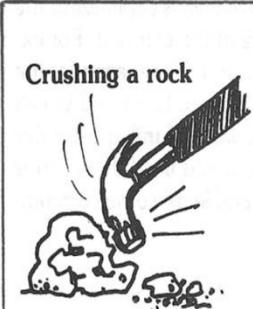
### CHEMICAL CHANGE

Cut out the pictures and glue them on to the correct type of change.



**Elaborate**

1. Determine if each pictures shows a physical or chemical change.
2. Circle the correct letter.



Crushing a rock



P or C



Rusting of iron



P or C



Seltzer tablet in water



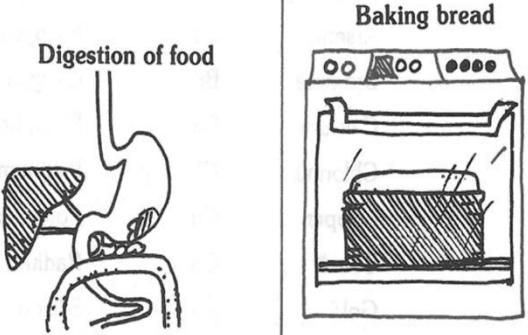
P or C



Slicing bread



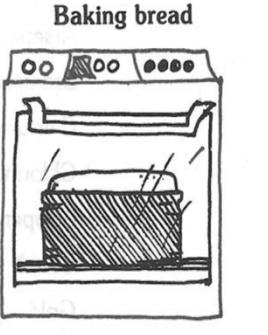
P or C



Digestion of food



P or C



Baking bread



**Evaluate**

Name \_\_\_\_\_ period \_\_\_\_\_

**EXIT TICKET**

Physical and Chemical Changes

**Question:**

Are physical and chemical changes the same thing?

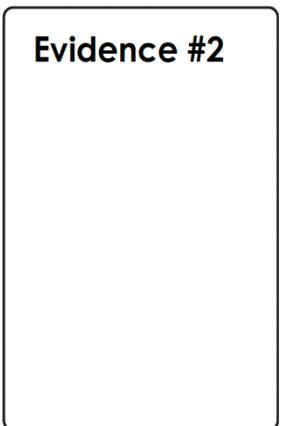
**Claim:**

I think

**Evidence #1**



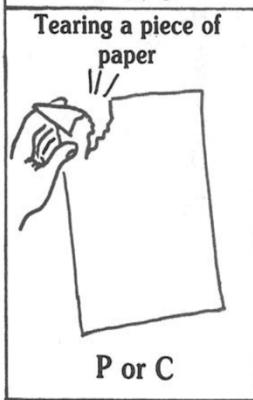
**Evidence #2**



**Evidence #3**



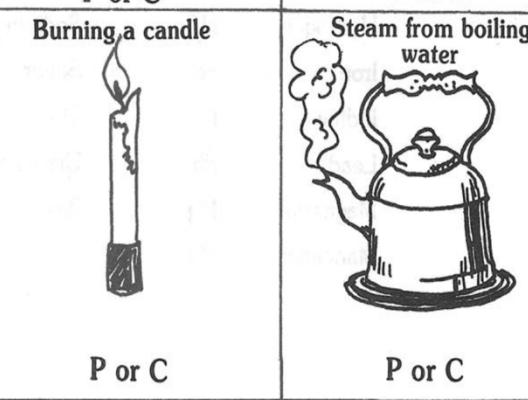
**Reasoning:**



Tearing a piece of paper



P or C



Burning a candle



P or C



Steam from boiling water



P or C