

Chemical and Physical Change Lab Sheet

Background Theory:

Physical changes usually involve a compound's state of matter where heat energy is added or removed. For this reason, physical changes can be reversed. By contrast, chemical changes occur at the molecular level when two or more molecules are interacting. Chemical changes involve the bonds in a compound being broken and new bonds being formed during a chemical reaction. Since the reactants are no longer present, a chemical change cannot be easily reversed.

<https://www.youtube.com/watch?v=x49BtB5dOwg>

In this lab you will:

1. Identify chemical and physical changes by observing a variety of reactions.
2. Provide justification for identifying a reaction as chemical or physical.

Pre-lab Questions:

1. Give TWO key features of CHEMICAL changes
2. Give TWO key features of PHYSICAL changes

Instructions:

1. Working in groups of two or three, progress through each station in the lab to complete the results chart below.
2. At each station, read the instructions and then carry out the experiment, recording any observations as the experiment progresses.
3. Once all five stations have been completed, decide in your group whether each experiment is an example of a physical change or a chemical one.

Results:

Reaction	Observations	Type of Change
1. Iodine		
2. Magnesium		
3. Fizzy Pop		
4. Zinc Oxide		
5. Copper sulfate solution		

Name: _____ Period: _____ Date: _____

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Post-Lab Questions:

For each of the following activities, decide if it is an example of a physical or chemical change. Provide justification for your choice:

1. A log burning on the fire

Change:

Justification:

2. Boiling water

Change:

Justification:

3. Frying an egg

Change:

Justification:

4. An iron pipe rusting

Change:

Justification:

5. An iceberg melting

Change:

Justification:

6. Fruit rotting

Change:

Justification:

7. Shredding cheese

Change:

Justification:

8. A pond freezing

Change:

Justification: