

PHYSICAL AND CHEMICAL CHANGES

SUBJECT-CHEMISTRY

CHAPTER NO- 2

How will you know that chemical change has taken place?

PERIOD-6

CHANGING YOUR TOMORROW

LEARNING OBJECTIVE

Students will be able to

- Understand the concept of chemical change
- Familiarize with the changes that occur in a chemical change
- Sensitize different ways by which one can know that chemical change has taken place.



WARM UP QUESTIONS

Recapitulation of the previous topic by asking following questions

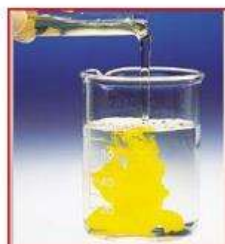
- Write the characteristics of chemical changes
- Give some examples of chemical changes

HOW WILL YOU KNOW A CHEMICAL CHANGE HAS TAKEN PLACE?

Signs of chemical changes

- In most chemical changes, more than one sign is present.

1. Change in color (sometimes)
2. Change in odor
3. Production of heat
4. Bubbling
5. Fizzing or foaming
6. Sound or light given off
7. Gas given off
8. **Precipitate** formed (solid substance formed in solution)



Change in Property	Example
Radiation or absorption of heat	Burning of a substance such as coal, wood or candle results in production of heat and hence is a chemical change. Similarly, melting of ice results in absorption of heat and therefore it is a chemical change.
Production of sound	Bursting of fireworks is a chemical change. It results in production of sound, heat, radiation as well as gas.
Change in the colour of the substance	Raw fruits and vegetables when cut and left in open air start acquiring brown color due to a chemical change. Similarly, rusting of iron results in change of color of iron to reddish brown is also a chemical change.
Formation of a gas	When antacids are mixed in water bubbles are formed indicating the production of a gas and therefore it is a chemical change.
Change in the smell of the substance	When food gets spoiled, it produces foul smell. This is because of a chemical change in food. Rotten eggs often produce a bad odour due to production of sulphur.
Formation of Solids	Two liquids combine with each other and form a solid called precipitate. For Example, shells of animals are precipitates formed by chemical change.

Demonstrate activity 14 in class for the better understanding of concept.

HOME ASSIGNMENT

Exercise- fill in the blanks(1),

- state whether the following are physical or chemical changes (2)
- How will you know that a chemical change has taken place?

THANKING YOU
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