Name: _____ Date: _____

Physical and Chemical Change

Q1. When baking soda is mixed with lemon juice, bubbles are formed with the evolution of a gas. What type of change is it? Explain.

Ans. _____

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Q2. Why are chemical changes important in our daily lives?

Ans. _____

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Q3. In addition to new products, what else may accompany a chemical change?

Ans. _____

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Education with Fun

Physical and Chemical Change

Q1. When baking soda is mixed with lemon juice, bubbles are formed with the evolution of a gas. What type of change is it? Explain.

Ans. When baking soda is mixed with lemon juice, bubbles are formed with the evolution of a gas.

We can write the reaction as:

Lemon juice (Citric acid) + Baking soda (Sodium hydrogencarbonate) → Carbon dioxide + other substances

It is a chemical change.

Q2. Why are chemical changes important in our daily lives?

Ans. Chemical changes are very important in our lives because all new substances are formed as a result of chemical changes. For example, if a metal is to be extracted from an ore, such as iron from iron ore, we need to carry out a series of chemical changes. A medicine is the end product of a chain of chemical reactions. Useful new materials, such as plastics and detergents, are produced by chemical reactions. Indeed, every new material is discovered by studying chemical changes.

Q3. In addition to new products, what else may accompany a chemical change?

Ans. In addition to new products, the following may accompany a chemical change:

i. Heat, light or any other radiation (ultraviolet, for example) may be given off or absorbed.

ii. Sound may be produced.

iii. A change in smell may take place or a new smell may be given off.

iv. A colour change may take place.

v. A gas may be formed.