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## CH - Physical & Chemical changes!

Q1 Classify the changes involved in the following processes as physical or chemical changes:

a) Photosynthesis : Chemical change.

b) Dissolving sugar in water : Physical change.

c) Burning of coal : Chemical change.

d) Melting of wax : Physical change.

e) Beating aluminium to make aluminium foil : Physical change.

f) Digestion of food : Chemical change.

Q2 State whether the following statements are true or false. In case a statement is false, write the corrected statement in your notebook.

a) Cutting a log of wood into pieces is a chemical change (False).

Corrected statement : Cutting a log of wood into pieces is a physical change.



b) Formation of manure from leaves is a physical change. (False).

Corrected Statement: Formation of manure from leaves is a chemical change.

c) Iron pipes coated with zinc do not get rusted easily. (True).

d) Iron and rust are the same substances. (False).

Corrected statement: Iron and rust are different substances.

e) Condensation of steam is not a chemical change. (True).

Q3 Fill in the blanks in the following statements:

a) When carbon dioxide is passed through lime water, it turns milky due to the formation of calcium carbonate.

b) The chemical name of baking soda is sodium hydrogen carbonate.



c) Two methods by which rusting of iron can be prevented are painting and greasing.

d) Changes in which only physical properties of a substance change are called physical changes.

e) Changes in which new substances are formed are called chemical changes.

Q4 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 → This is a chemical change as new products are formed.

Baking soda + lemon juice + carbon dioxide + other substance.

Q5 When a candle burns, both physical and chemical changes take place. Identify these changes. Give another example of a familiar process in which both the chemical and physical take place.

Ans → Physical change: Melting of wax  
 Chemical change: Burning of wax to form carbon dioxide and other product.



Q6. How would you show that setting of curd is a chemical change?

Ans → This is a chemical change because a new substance is formed. Also, this change cannot be reversed.

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Q7. Explain why burning of wood and cutting it into small pieces are considered as two different types of changes?

Ans → When we burn wood, a new substance coal is formed. It is a chemical change. When we cut wood only shape and size change. It is physical change.

Q8. Describe how crystals of copper sulphate are prepared?

Ans → Few drops of dilute sulphuric acid are added to water and heat it. When it starts boiling copper sulphate powder is added with stirring until the solution becomes saturated. It is filtered and allowed to cool. Crystals of copper sulphate separate out.



Q9 Explain how painting of an iron gate prevents it from rusting?

Ans By painting we prevent its contact from the air and moisture. Hence rusting is prevented.

Q10 Explain why rusting of iron objects is faster in coastal areas than in deserts.

Ans Because moisture is present in coastal area. Which causes rusting faster in desert.

Q11 The gas we use in the kitchen is called liquefied petroleum gas (L.P.G). In the cylinder it exist as a liquid. When it comes out from the cylinder it becomes a gas (Change-B). The following statements pertain to these changes. Choose the correct one.

i) Process - A is a chemical change.

ii) Process - B is a chemical change.

iii) Both processes A and B are chemical changes.

iv) None of these processes is a chemical change.

Q12 Anaerobic bacteria digest animal waste and produce biogas (Change - A) The biogas is then burnt as fuel (Change - B). The following



Statements pertain to these changes. Choose the correct one.

- i) Process - A is a chemical change.
- ii) Process - B is a chemical change.
- iii) Both processes A and B are chemical changes.
- iv) None of these processes is a chemical change.

*Answer*