NCERT Solutions for Class 7 Science Chapter 6

Physical and Chemical Changes Class 7

Chapter 6 Physical and Chemical Changes Exercise Solutions

(a) False

(b) False

(c) True(d) False

Cutting a log of wood into pieces is a physical change.

Formation of manure from leaves is a chemical change.

Exercise: Solutions of Questions on Page Number: 65 Q1: Classify the changes involved in the following processes as physical or chemical changes: (a) Photosynthesis (b) Dissolving sugar in water (c) Burning of coal (d) Melting of wax (e) Beating aluminium to make aluminium foil (f) Digestion of food Answer: (a) Photosynthesis → Chemical change (b) Dissolving sugar in water \rightarrow Physical change (c) Burning of coal → Chemical change (d) Melting of wax \rightarrow 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. (True/False) (b) Formation of manure from leaves is a physical change. (True/ False) (c) Iron pipes coated with zinc do not get rusted easily. (True/False) (d) Iron and rust are the same substances. (True/False) (e) Condensation of steam is not a chemical change. (True/False) Answer:

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Iron and rust are different substances. Rust is iron oxide $({\rm Fe_2O_3})$.
(e) 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
(b) The chemical name of baking soda is
(c) Two methods by which rusting of iron can be prevented areand
(d) Changes in which only properties of a substance change are called physical changes.
(e) Changes in which new substances are formed are calledchanges.
A
Answer:
(a) When carbon dioxide is passed through limewater, it turns milky due to the formation of <u>calcium carbonate (CaCO₃)</u> .
(b) The chemical name of baking soda is <u>sodium hydrogen carbonate</u> .
(c) Two methods by which rusting of iron can be prevented are <u>galvanization</u> and <u>painting</u> .
(d) Changes in which only <u>physical</u> properties of a substance change are called physical changes.
(e) Changes in which new substances are formed are called <u>chemical</u> 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.
Answer:
When baking soda (Sodium hydrogen carbonate) is mixed with lemon juice (citric acid), bubbles are formed. The bubbles are formed due to the evolution of carbon dioxide gas. This is a chemical change.
In this change, citric acid contained in lemon juice reacts with sodium hydrogen carbonate which results in the evolution of carbon dioxide gas.
Lemon juice(Citric acid) + Baking soda (Sodium hydrogen carbonate) → Carbon dioxide + Other substances
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 changes take place.
Answer:
When a candle burns, both physical and chemical changes take place.
Physical change → Melting of wax Chemical change → Burning of wax

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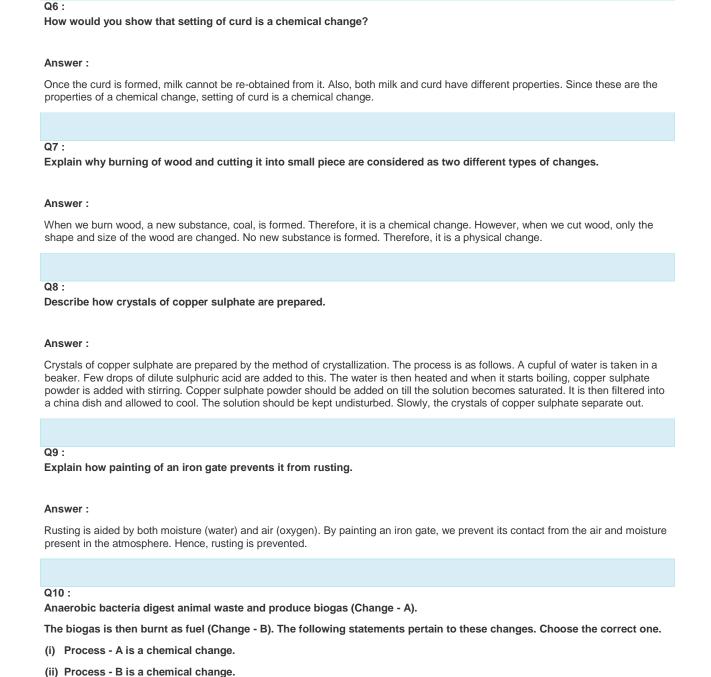
Eating of food is another example where both physical and chemical changes occur simultaneously.

Physical change → Breaking down of larger food particles into smaller particles

Chemical change → Digestion of food

(iii) Both processes A and B are chemical changes. (iv) None of these processes is a chemical change.

Answer:



www.ncrtsolutions.in (iii) Both processes A and B are chemical changes.