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COMPETENCY-BASED WORKSHEET

Chapter 5: Changes Around Us – Physical and Chemical

Subject: Science | Class: VII | Session: 2026-27 | Prepared by: Pooja Sahu

Name: _____	Roll No.: _____	Date: _____	Marks: _____

SECTION A – Multiple Choice Questions (MCQ) [30 Questions] [Marks: 30]

Choose the correct option for each question. (1 mark each)

1. Which of the following is an example of a **physical change**?

(a) Burning of wood (b) Rusting of iron (c) Melting of ice (d) Curdling of milk

2. A chemical change always results in:

(a) Change in colour only (b) Formation of a new substance (c) Change in size (d) Change in shape

3. When lime water is exposed to carbon dioxide, it turns:

(a) Yellow (b) Milky white (c) Blue (d) Transparent

4. Which of the following is a **chemical change**?

(a) Folding a paper (b) Boiling of water (c) Burning of magnesium ribbon (d) Crushing chalk

5. The component of air that supports combustion is:

(a) Nitrogen (b) Carbon dioxide (c) Oxygen (d) Argon

6. What is the minimum temperature at which a substance catches fire called?

(a) Boiling point (b) Melting point (c) Ignition temperature (d) Freezing point

7. Rusting of iron is a chemical change because:

(a) Iron changes shape (b) Iron oxide (rust) is formed (c) Iron melts (d) Iron becomes lighter

8. Which process represents a physical change?

(a) Baking a cake (b) Cooking food (c) Evaporating water (d) Making popcorn

9. The reaction between vinegar and baking soda produces:

(a) Oxygen gas (b) Nitrogen gas (c) Carbon dioxide gas (d) Hydrogen gas

10. A chemical reaction in which a substance reacts with oxygen producing heat and/or light is called:

(a) Erosion (b) Combustion (c) Weathering (d) Condensation

11. Which of the following changes can be **reversed**?

(a) Burning of paper (b) Cooking an egg (c) Melting of wax (d) Rusting of iron

12. Substances that undergo combustion are called:

(a) Inert substances (b) Combustible substances (c) Non-reactive substances (d) Soluble substances

13. When a candle burns, the melting of wax is a:

(a) Chemical change (b) Both physical and chemical change (c) Physical change (d) No change

14. The process of breaking of rocks into smaller pieces by natural forces is called:

(a) Erosion (b) Rusting (c) Combustion (d) Crystallisation

15. Which of the following is a **desirable** change?

(a) Rusting of iron (b) Decay of food (c) Ripening of fruits (d) Burning of forest

16. Which statement is TRUE about physical changes?

(a) New substance is always formed (b) The change cannot be reversed (c) No new substance is formed (d) Chemical reaction takes place

17. Chopping vegetables is a physical change because:

(a) New substance is formed (b) Only size and shape change (c) Heat is produced (d) Gas is released

18. The burning of magnesium ribbon produces:

(a) Magnesium chloride (b) Magnesium sulphate (c) Magnesium oxide (d) Magnesium carbonate

19. Which of these is an example of bioluminescence?

(a) Burning candle (b) Glowing fireflies (c) Rusting iron (d) Melting ice

20. What happens when a glass tumbler is placed over a burning candle?

(a) The candle burns faster (b) The candle keeps burning (c) The candle is extinguished (d) More smoke is produced

21. Erosion is an example of a:

(a) Chemical change (b) Both physical and chemical change (c) Physical change (d) Undesirable change only

22. Which of the following changes cannot be reversed?

(a) Boiling water (b) Melting of ice (c) Making popcorn from corn (d) Inflating a balloon

23. When baking soda is added to lemon juice, the fizzing sound is due to:

(a) Oxygen gas (b) Nitrogen gas (c) Carbon dioxide gas (d) Water vapour

24. Weathering of rocks produces:

(a) Minerals (b) Water (c) Soil (d) Air

25. Which of the following does NOT support combustion?

(a) Oxygen (b) Carbon dioxide (c) Air (d) None of these

26. A chemical equation represents:

(a) Physical change of a substance (b) A change in shape only (c) A chemical reaction in short form (d) Erosion of rocks

27. The product formed when carbon dioxide reacts with lime water (calcium hydroxide) is:

(a) Calcium chloride (b) Calcium carbonate (c) Calcium sulphate (d) Calcium nitrate

28. Which of the following is used to test the presence of carbon dioxide?

(a) Tap water (b) Salt water (c) Lime water (d) Distilled water

29. The three requirements for combustion are fuel, oxygen, and:

(a) Water (b) Heat (c) Light (d) Carbon dioxide

30. Decomposition of leaves into compost is:

(a) A physical change only (b) A chemical change (c) A reversible change (d) An undesirable change

SECTION B – Fill in the Blanks [20 Questions] [Marks: 20]

Fill in the blanks with the correct word/term. (1 mark each)

1. A change in which only physical properties such as shape, size, and state change, and no new substance is formed, is called a _____ change.

2. A change in which one or more new substances are formed is called a _____ change.

3. When lime water is exposed to carbon dioxide, it turns _____ in colour.

4. The process by which a substance reacts with oxygen to produce heat and/or light is called _____.

5. Substances that undergo combustion reactions are called _____ substances.

6. The minimum temperature at which a substance catches fire is called its _____.

7. Rusting of iron is a _____ change because iron oxide (rust) is formed.

8. The burning of a magnesium ribbon produces a white powder called _____.

9. The turning of lime water milky is used as a test for the presence of _____ gas.

10. Melting of ice is a _____ change because it can be reversed.

11. The physical and chemical changes that break rocks into smaller pieces and eventually form soil are collectively called _____.

12. The process by which rock pebbles and sediments are moved from one place to another by wind and flowing water is called _____.

13. The three requirements for combustion are: a combustible substance, oxygen, and _____.

14. When wax melts in a burning candle, this is an example of a _____ change.

15. Chopping vegetables is a physical change because only the _____ and size of vegetables change.

16. A chemical reaction can be represented in short form as a chemical _____.

17. Making popcorn from corn is a change that cannot be _____, so it is an irreversible change.

18. Light produced by fireflies through a chemical change (without heat) is called _____.

19. When baking soda is mixed with vinegar, the gas produced is _____.

20. Decomposition of food waste into compost is an example of a _____ change that can also be considered desirable.

SECTION C – One Word Answer Questions [10 Questions] [Marks: 10]

Answer each of the following in one word. (1 mark each)

1. Name the type of change in which a new substance is formed.
   Answer: _____

2. What do we call the minimum temperature at which a substance catches fire?
   Answer: _____

3. Name the white insoluble substance formed when carbon dioxide reacts with lime water.
   Answer: _____

4. What is the name of the brown deposit formed on iron when it is exposed to moisture and air?
   Answer: _____

5. What type of change is the melting of ice?
   Answer: _____

6. Name the process by which rocks are broken down and transported by wind and water.
   Answer: _____

7. What is the component of air that supports combustion?
   Answer: _____

8. Name the type of change that involves chemical reaction and cannot usually be reversed.
   Answer: _____

9. What is the light produced by fireflies (without heat) in living organisms called?
   Answer: _____

10. Name the combined process of physical and chemical breakdown of rocks leading to soil formation.
    Answer: _____