**SCIENCE NOTES**

**Class-VI**

**Chapter-6**

**How Things Change**

Very short answer type question

Q-1 Give one example of a change from your surroundings?

Ans-Change of weather.

Q-2 Are physical changes irreversible?

Ans –No, Physical changes are reversible.

Q-3 Give an example of a chemical change?

Ans –Burning of paper.

Q-4 Give an example of a natural change?

Ans-Formation of day and night.

Q-5 Which method is used to cover the wooden wheels of bullock carts with iron rims?

Ans – Method of heating and cooling.

Short answer type question

Q-1 Give two examples where expansion and contraction of metals is utilized?

Ans-The two examples where expansion and contraction of metal is utilized are as follows:-

1) Fixing of iron rims on bullock cart wheels.

2) Wooden handles are fitted by heating tools such as plough and shades which are used for digging soil.

Q-2 Chemical changes are irreversible .Justify the statement by giving two examples?

Ans-The changes in which new substances are formed due to change in their composition are called chemical changes. Such changes are called irreversible changes. For example:-

1)Cooking a chapatti out of dough, Curdling of milk, Burning of paper, Boiling on Egg, burning of candlewick etc.are irreversible chemical change.

2) When an iron nail is kept in humid air for some days a brown substances deposits on it. This brown substance deposits on it this brown substance is called rust. Rusting of iron nail is another example of irreversible change.

Q-3 Give an example of a change caused by mixing of things?

Ans-Changes can be brought about by mixing things are For example, When sugar is mixed in water, a sugar solutions obtained (reversible change).When quicklime is mixed in water, slaked lime is obtained (irreversible change).

Q-4 Why melting of butter is said to be a physical and reversible change?

Ans:-Melting of butter is a physical and reversible change because these are the changes in which the composition of the substance remains the same but the shape, size or state of the substance changes Most of the physical changes are reversible changes .

Q-5 Why folding a paper is considered to be a physical change?

Ans-Folding of a paper is said to be a physical change because a sheet of paper is folded to make a

Toy aero planes and paper boat when it is unfolded, the paper come back to its original form.

Q-6 Most of the physical changes are reversible .Justify the statement by giving two examples?

Ans-Most physical changes are reversible because

1)If water is boiled in a container it changes to water vapour.If a lid is held over the water vapour,it condenses to drops of water.

2) if you blow air into a balloon, it enlarges in size if you remove air from the balloon, it gets back to its original shape and size.

Long answer type question

Q-1 Explain how changes takes place in different ways with the help of suitable examples?

Ans-The changes that takes place by different ways are as follows:-

1) Certain things become hot on heating and cool in cooling:-When we heat water the temperature of water rises and become hot and if it is left for sometimes it gets cool.

2) Certain things expand on heating and contracts on cooling:-Metal like iron, silver etc expands on heating and contracts on cooling.

3) Certain things change their states:- Heating and cooling can change the state of metal. Ex: Ice(solid) changes to water (liquid) on heating.

4) By mixing: When sugar is added to water sugar solution is obtained, which is a new compound. Also, when quicklime is mixed water slaked lime is obtained.

5) By applying pressure: Soft solids on applying pressure change its shape. Ex: rubber, sponge.

Q-2 Differentiate between Physical and Chemical changes. Give two examples for each?

Ans:- Difference between physical and chemical changes are:-

|  |  |  |
| --- | --- | --- |
| S.No | Physical changes | Chemical change |
| 1 | No new substances formed. | New substances is formed |
| 2. | These changes are mostly reversible in nature.Eg –Stretching of rubber band, Melting of ice. | These changes are always irreversible in nature.eg-  Burning of a candle wick, Burning of paper. |

Q-3 Give any two points of difference between reversible and irreversible changes?

Ans-

|  |  |  |
| --- | --- | --- |
| S.No | Reversible change | Irreversible change |
| 1 | A change that can be reversed to obtain the original substance or material is called reversible change. | A change in which the substance cannot be changed back to what it was initially by reversing the action is called an irreversible change. |
| 2 | Changing of season, motion of cloud, weathering of rocks, formation of glaciers is example of reversible change. | Burning of paper and wood, cooking of food burning of Crackers etc are example of irreversible change. |

Q-4 How is burning of candlewick different from melting of wax?

Ans- As the candlewick burns, it gives heat and light we cannot get the wick back as it was initially. The composition of the burnt brick is also different. Thus the burning of candle wick is an example of chemical change, whereas melting of wax is a physical change after melting it turns to liquid and on cooling it becomes solid.

Q-5 How is a metal rim fixed around the wooden wheel of a cart?

Ans:-Objects like metals expands on heating and contracts on cooling.

Process of fixing iron rim on wooden wheel:

1. The size of iron rim is kept slightly smaller than the wooden wheels.
2. The iron rim is heated. This causes it to expand.
3. This makes it easy to put the iron rim over the wooden wheels.
4. Upon cooling, the rim contracts and fits tightly around the wooden wheel.