

6.5.24

TENDER HEART SCHOOL, SEC-33B, CHD

Date

CLASS- VII

SUBJECT- CHEMISTRY

CHAPTER- 2

TEACHER- MOHINISHA THAKUR

Good morning to all the students!

Students this lesson is for class-VII for the subject of chemistry, Topic :- 'Physical and chemical changes' which is covered in chapter-2 'Physical and chemical changes' starting on page-no-12 of your text-book titled- conise chemistry by 'Selina Publication' and is being submitted to you on **6, May, 2024**

This voice is of Mohinisha Thakur.

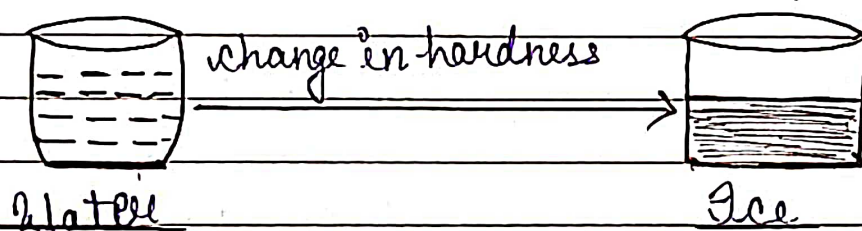
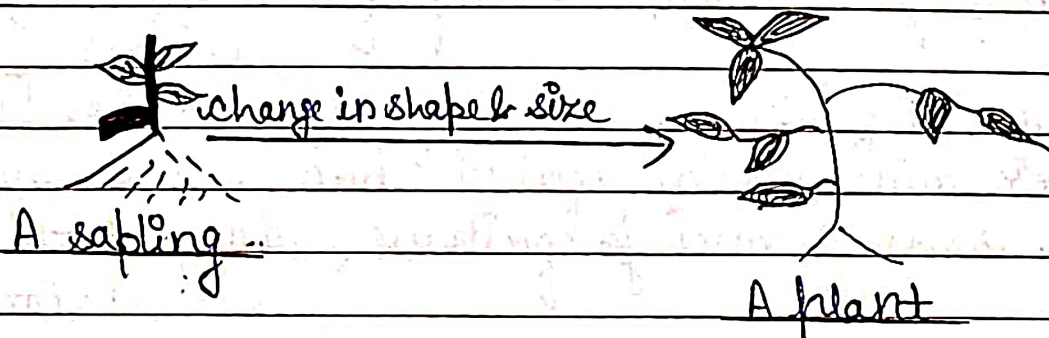
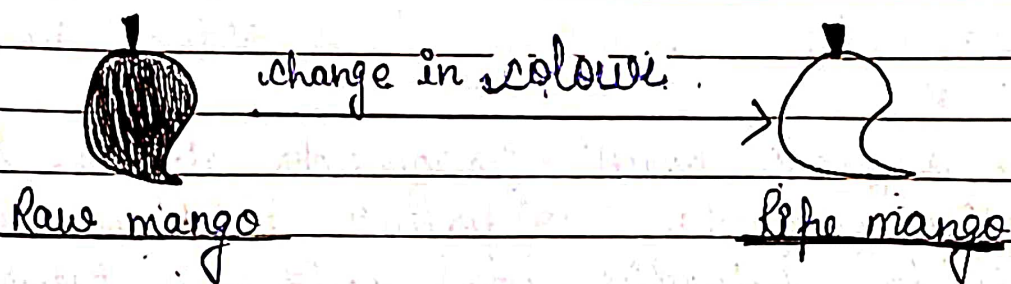
All students may now please open page no-12 of your notebook in front of you.

If all students are ready then let us start with this chapter. All students may now please listen carefully.

Students we can observe so many changes in our surroundings and nature like growing of plants and animals, burning of match stick, ripening of fruits, melting of ice, changes of day and night, rusting of iron etc. Let us find out now, what happens to the substance during a change?

(P.T.O.)

CLASS - VII **SUBJECT - CHEMISTRY**
CHAPTER - 2 **TEACHER - MOHINISHA THAKUR**



So it is clear now, that, when changes take place, the substances may change their colour, shape, size, hardness etc.

There are many changes going around us, every change going around us, every change is of different nature. There is always a reason behind every change. Let us classify these changes to understand them better.

Non-periodic changes:-

changes are not repeated at regular intervals and occur irregularly.

Examples:- Earthquakes, dust storm, sudden shower of rain, thunder and lightning.

(P.O.T.O.)

CLASS- VII

SUBJECT-CHEMISTRY

CHAPTER-2

TEACHER-MOHINISHA THAKUR

Desirable and Undesirable changes:-

Desirable changes:- These changes are useful to mankind. Examples:- changing milk into curd, cooking food, ripening of fruits, drying of clothes.

Undesirable changes:- These changes are not useful to us and brings destruction. Example:- Earthquake, rusting of iron, floods, and epidemics.

changes that can be desirable as well as undesirable

(i) cutting of trees

Desirable
Provides wood for cooking

Undesirable
Damages environment

(ii)

Rain

Desirable
Timely arrival of rain is good for farmers.

Undesirable
Untimely arrival of rain can cause flood and destruction.

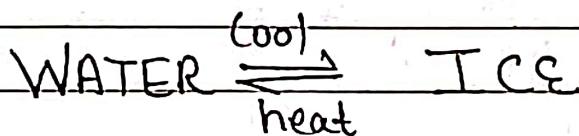
CLASS - VII SUBJECT - CHEMISTRY

CHAPTER - 2 TEACHER - MOHINISHA THAKUR

Students, now we will discuss the next topic of this chapter which is 'Reversible and Irreversible changes'.

Reversible and Irreversible changes

We have studied about so many changes taking place around us. When we keep water in the freezer, it changes into ice and if you keep this ice at room temperature for some time, it melts and changes back to water.



This type of change which can be reversed by changing the conditions, is known as reversible change. Examples:- vaporization of water, melting of wax, stretching of rubber band, dissolving sugar into water. If you burn a paper, it changes into ash. We cannot get the paper back from ash. A ripened mango cannot be changed into raw mango again. Milk changed into curd cannot be obtained back. Such type of changes where a substance cannot be brought back to its original state is known as irreversible change.

(P.T.O.)

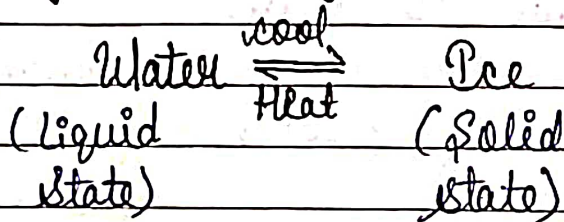
CLASS - VII SUBJECT - CHEMISTRY

CHAPTER - 2 TEACHER - MOHINISHA THAKUR

Now, we will discuss the topic which is 'Physical and Chemical changes'

Physical And Chemical Changes

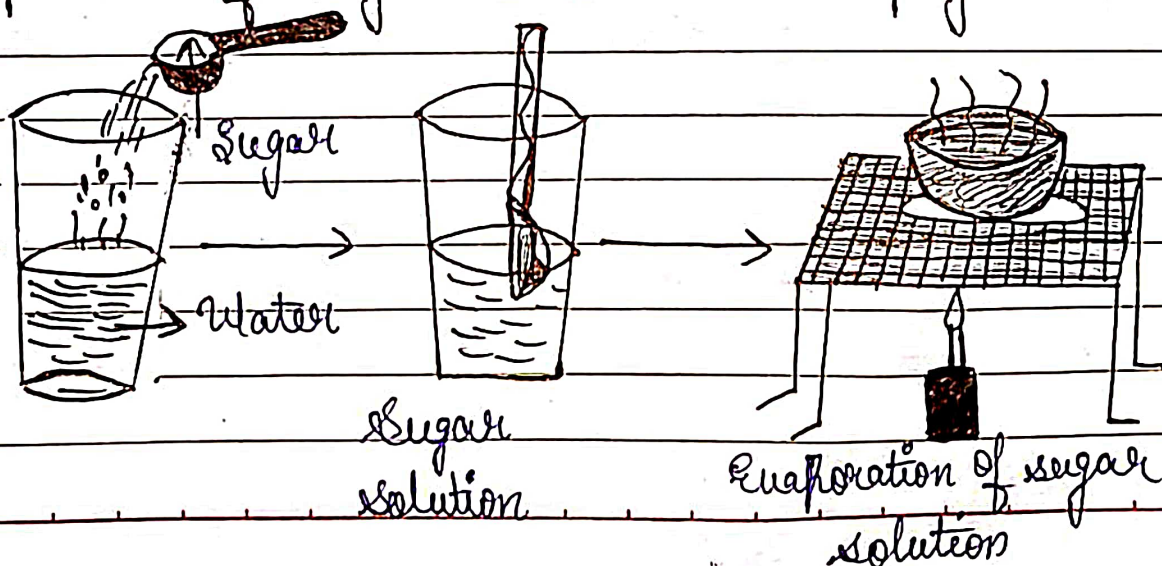
Physical change :-



This change is temporary and reversible only the physical state is changing here, the chemical properties of water remain same. The same molecules are only changing their arrangement.

In temporary change, in which no new substance is formed and the chemical composition of the original substance remains the same is known as physical change.

Preparation of sugar solution is a physical change :-



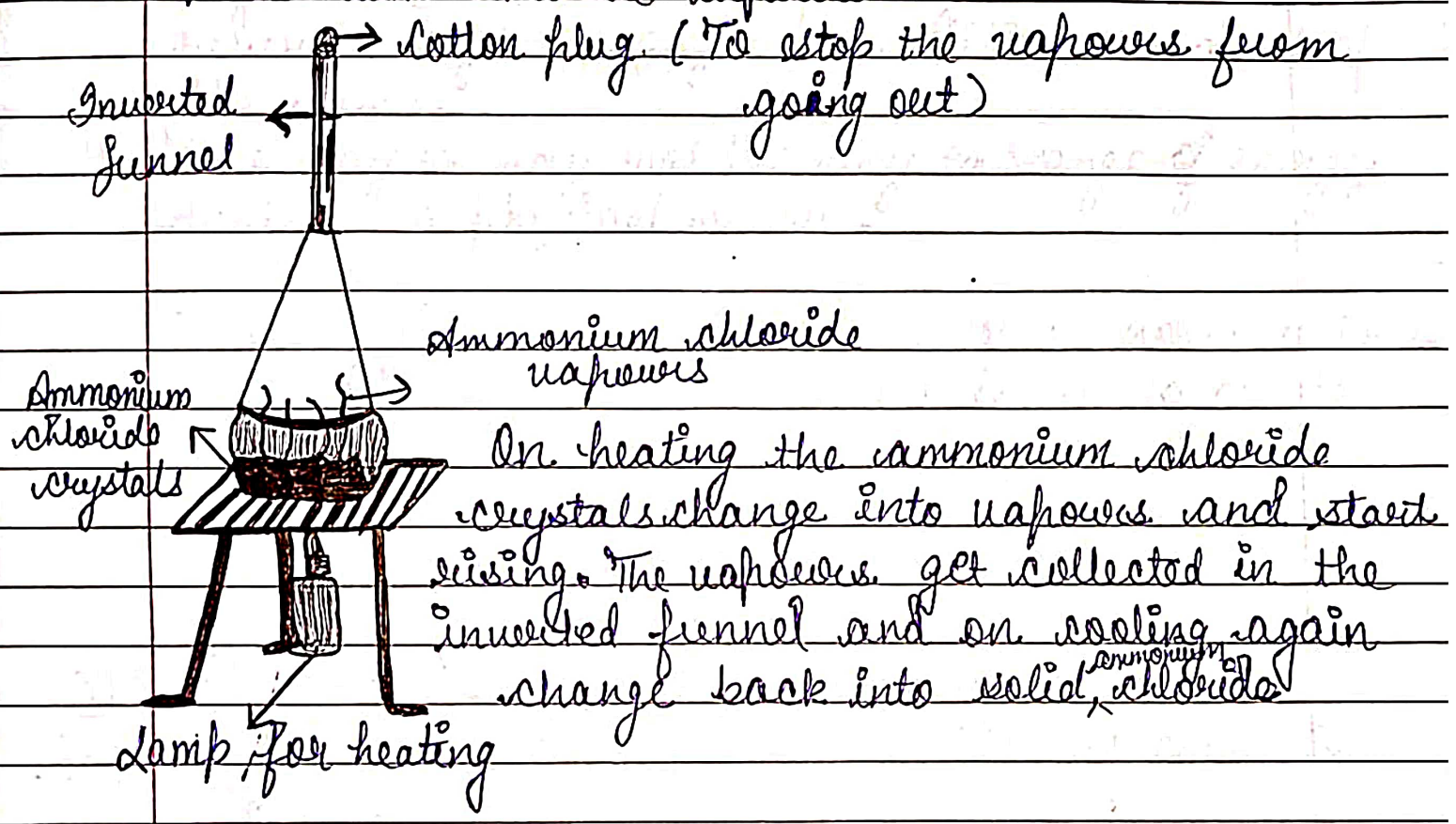
CLASS- VII SUBJECT- CHEMISTRY
CHAPTER- 2 TEACHER- MOHINISHA THAKUR

When water evaporates, sugar crystals are obtained.

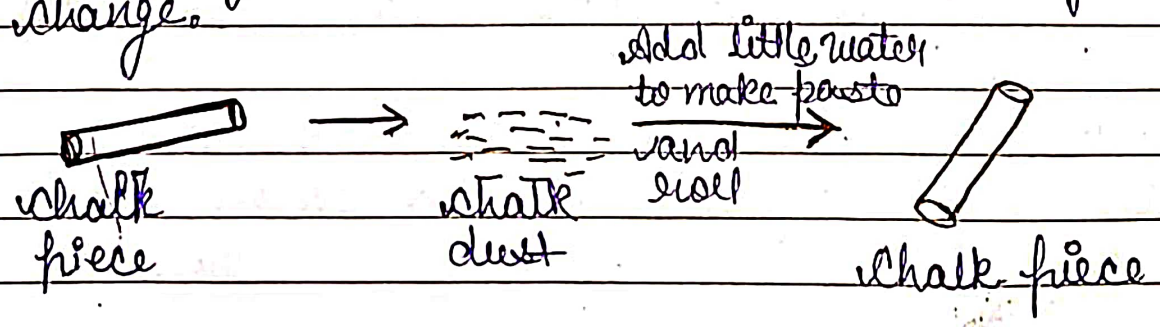
Sublimation of ammonium chloride is a physical change :-

Solid ammonium chloride crystals SUBLIMATION
Heat $\uparrow$ Cool

Ammonium chloride vapours



Crushing chalk into chalk dust is physical change.



(P.T.O.)

CLASS - VII

SUBJECT - CHEMISTRY

CHAPTER - 2

TEACHER - MOHINISHA THAKUR

Characteristics of a Physical change :-

1. No new substance is formed, there may be changes in the state, size, shape, colour and smell of substances.
2. The composition and properties of the substance remain same.
3. Physical changes are temporary and can be reversed by changing the conditions in most of the cases.
4. There may or may not be any exchange of energy during a physical change.

Now, I will give you three very short Questions. You will get a three minutes break to write the answers.

The Questions are :-

- Q1 :- Give one example of Non-periodic changes.
- Q2 :- What kind of changes is when milk is converting into curd?
- Q3 :- On heating the ammonium chloride crystals change into _____ and start rising.

Students, now pause this audio for three minutes and write the answers in your chemistry notebook.

CLASS - VII SUBJECT - CHEMISTRY
CHAPTER - 2 TEACHER - MOHINISHA THAKUR

I hope you all have written the answers by now.

- Ans 1:- Earthquakes.
Ans 2:- Desirable changes
Ans 3:- Vapours

Students, Now I am ending the lesson for today by giving 'Instructions' and 'Homework'.

Instructions:-

You all are required to read the lesson again and revise all the topics which we have covered today.

* (End) *