

PHYSICAL AND CHEMICAL CHANGES

SUBJECT-CHEMISTRY

CHAPTER NO- 2

Introduction, types of changes- slow and fast changes, natural and man-made changes.

PERIOD-1

CHANGING YOUR TOMORROW

LEARNING OBJECTIVE

Students will be able to

- Know about different types of changes occurring in our day today life
- Distinguish the two types of changes- slow and fast changes
- Distinguish the two types of changes- natural and manmade changes.



WARM UP QUESTIONS

- Activate prior knowledge by asking students what happens to a snowman on a warm day?
- After listening to their responses, guide them to understand that the snowman changes shape, but it is still made from the same material, which is water.
- Then ask them what happens to a log in the fireplace if it is set on fire.
- Guide them to recognize that sometimes changes cause objects to turn into new materials, like wood to ash.

Slow and fast changes

Slow change	Fast change
<p>Changes which occur - very slowly over days, months or years.</p> <p><i>Examples :</i> Growth of a tree from a seed - a few years, tooth decay, change of seasons, growth of many rusting of iron.</p>	<p>Changes which occur - very rapidly in seconds or minutes.</p> <p><i>Examples :</i> Occurrence of lightning - a few seconds, burning of paper or match, lighting a bulb, bursting of fire works.</p>

CHANGES TO THE EARTH



From ICE



From WATER



From WIND

SLOW CHANGES



Weathering



Erosion



Deposition

FAST CHANGES



Volcanic Eruptions



Earth Quakes



Landslides

- **Demonstrate** any one of each type of change by showing real life examples- like rusting of iron, bursting of an inflated balloon, lighting of electric bulb, ripening of mango
- Show a video on slow and fast changes for better understanding of the concept
- <https://youtu.be/oJ8WoHbdz1U>

Natural and manmade changes

Natural changes	Man-made changes
1. The changes which are brought about by nature itself and are not under the control of humans are called natural changes.	The changes which are brought about by humans are called man-made changes.
2. Examples- change of season, tides in the sea, aging of plants, etc.	Examples- burning of fuels, cutting hair, switching on lights, etc.

- **Demonstrate** any one of each type of change by showing real life examples- ripening of mango, germination of seeds, and preparation of chapattis.
- Show a video for better understanding of the concept
- <https://youtu.be/FKfLArLpkIs>

HOME ASSIGNMENT

Exercise-1(a), (c)

Q. Differentiate between slow and fast changes

Q. Differentiate between natural and manmade changes

Q. Ripening of mango is slow or fast change?
Explain

Q. Bursting of an inflated balloon is slow or fast change? Explain

PERIODIC AND NON PERIODIC CHANGES

- Changes that repeat at regular intervals are called **periodic changes**.

Periodic Change

• Changes which repeat themselves are called periodic changes. **Day and night, phases of the moon, beating of heart, clock striking again an hour** are the examples of periodic changes.



Certain changes that do not repeat themselves at regular intervals of time, and such changes are called **non-periodic changes**.

Non-periodic Changes:

- Changes which do not occur regular intervals of time are called non-periodic changes. For example **eruption of volcanoes, earthquakes, forest fire** etc., are non-periodic changes.



THANKING YOU
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