B.Ed., 2021 - 2023

CERTIFICATE

This is to certify that Mr./Mrs./Miss Subhashree Acharya

bearing the Register Number 211360576110

has successfully completed his/her Activity Record work for

Pedagogy of Physical Science

as a part of B.Ed., (Regular) Course for the semester One

2021-2023

Signature of the Lecturer *Principal*

Date :

INDEX

Nature And Scope Of Science

Meaning Of Science:-

The English word Science is derived from a Latin verb "Scire" which means to "know" and Latin noun "Scientia" which means knowledge.

Meaning of science is based on German word Wissenchaft which means systamatic organized knowledge. Thus, Science is a systematized body knowledge.

According to Columbia Encyclopedia, "Science as an accumulated and systematised Learning in general us age restricted to natural phenomena.

According to Johnwood burnEO oburn, " Sclence is an accumulated to Natural phenomena."

Nature Of Science:-

Nature of science can be briefly descri°-bed below.

* Science is based on observation
* Science develops Scientific attitude
* Science is a product and process
* Scientific Facts are tentative.

Scope Of Science

The scope of Science is the range of disciplines. Scientific or social, which it includes.

Science has brought about a change in such important aspects such as health, communication, Transportation etc. Actually the modern world is created by Science and maintained by Science.

Importance Of Science

* Science also deals with human problems environmental problems and health hazards which are solved by scientists efforts.
* The important aspect of science is new creation, discoveries and technologies.
* Science have become the backbone of todays development in all fields. It helps us to understand the nature and Life around us and lead a comfortable life and pleasant life.

—X—

The Milestones In The Development Of Science

Milestones In the Developmet Of Physical Science :-

Physics is the science of matter and its behaviour and motion. The first written work physics with that titel was Aristotle's physics.

* In 1987 Isaac Newton published Principle mathematica, a summary of his contributions to physics, machanical Engineering, Bridges tunnels, Sheps, Planes - all are designed on newton Ion principle.

* In 19th century a comparable revolution led by Michael Foraday and James Clerk, maxwell the nature and behavior of things electrical currents and chareges magnetisim and the electrical nature of light - were unified into one compreshesire theory.

* Einstine gave us a new view of the cosmos and a new life and unside of the nature of space and time.

Milestones in the History of Chemistry :-

The History of chemistry begins with the discovery of fire then metallurgy which allowed purification of metals and the making of alloys, as well as the explorations of many minerals and Natural Substances.

* Robert Bayal (1627-1691) is consider-ed to have refined to modern Scientific method for alchemy and to have separated chemistry further from alchemy.
* Boyle was credited with the discovery of Boyel's law.
* Antoine Lavoisier who developed his law of conservation of mass in 1789 also called Lavoisier law
* Mean deleevmade his prediction in 1870.
* In 1983 Kery mullis devised a method for the in-vitro amplification of DNA known as the polymerase chain Reaction (PCR)

—X—

Aims Of Teaching Physical Science

An Aim is a declaration of intent which gives direction to a teaching programme aims in physical science teaching according to Turber and Collete (1964) are

1. Towards understanding the nature of science.
2. Meeting the goals of general education
3. Help young people fit them selves in to their Socity.
4. Maintaining physical health the well being.
5. Helping pupils with personal adjust -ment.
6. Provide training for development of attitudes and values.
7. Giving pupils exploratory experience
8. Provide oppetynities to develop vocational and vocational intrests.

Aims Of Teaching Science:-

1. Objective of science gives guide student learning.

2. Help in modifing functional
3. Grades Learning experience
4. Gives meaning to content
5. Indicate the way to follow
6. Provide directions to classroom teachers
7. Helps in evolving proper learning Situation.

National Council For Educational Research And Training (NCERT-2001)

(1) Primary Stage:

* Able to appreciate the need to live in harmony with Nature
* Physical socially and mentally healthy

(2) Secondary Stage:

* Understands the Nature of Science and technology.
* Understands the basic concepts and law of science objectives of teaching Physical Science.

—X—

The Such Man Inquiry Model

Inquiry Raining Model:

The inquiry model, developed by Richard Suchman, is based on the premise that the intellectual strades used by scientists to solve problems.

General Goals Of Inquiry Traening

* Acquire and processdate logically
* Develop intellectual streategies that they can use why things are as they are.

The Inquiry Process With Help Students

* To begin to consider Success and Failur as information rather than reward or punishment
* Approach future problems with confidence in their abilities to seek out of the solution.

Phases Of Inquiry Traening

Inquiry traening has the following phase

1. The students canformation.
2. 2,3 data gathering
3. The student organization
4. Students Analization of problem.

—×—

Importance Of Planning For Teaching Planning

Good teaching requires adequate and extensive planning. The teacher has to plan above the following factors in education.

* The objectives to be achieved by teaching a particular method
* The methods to be used for teaching
* The teaching activities to be provided.
* The tools to be employed for testing

The teacher has to plan at three Levels.

Level 1:
Plan for whole year - Year plan

Level 2:
Plan for the units - Unit plan

Level 3:
plan for each lesson - Lesson plan

— X —