



B.Ed(4 Years) Elementary Education

Code	Subject Title	Cr. Hrs	Semester
EDE- 373	Methods of Teaching Science in Elementary Schools	3	5
Year	Discipline		
3	Elementary Education		

Aims

The study of General Science in Primary and Secondary school is linked to National prosperity and economic development. The course is designed for the effective interactive ways of teaching science. The course will highlight the power of observation and inquisitiveness in general sciences studies. It will also focus on how to relate facts, concepts, theories to every day experience.

Objectives

The course will enable learners to;

1. Understand scientific concepts
2. Differentiate between scientific products and scientific processes
3. Understand the underlying principle of science education
4. Apply appropriate methods and techniques for effective learning in Science

Syllabus

Unit 01 Nature of Science

- 1.1 Definition of science
- 1.2 Science as a process: Scientific Method
- 1.3 Science as a product: Scientific Knowledge

Unit 02 Aims / Objectives Teaching General Sciences

- 2.1 History of Science Education
- 2.2 Aims / Objectives of teaching General Science at Elementary level

Unit 03 Methods of Teaching General Science

- 3.1 Demonstration cum-lecture method
- 3.2 Discovery method
- 3.3 Project method
- 3.4 Other innovative method

Unit 04 Approaches of Teaching General Science

- 4.1 Teaching approach
 - a) Problem solving
 - b) Inquiry techniques

- c) Exploration
- d) Observation
- e) Experiment

4.2 Teaching Strategies

- a) Scope & propose of practical activities
- b) Science laboratory
- c) Safety measure in laboratory

Unit 05 Teaching Aids

5.1 Need & importance of teaching aids

5.2 Types of teaching aids

5.3 Principles of using teaching aids

5.4 Using low cost teaching aids

Unit 06 Characteristics of effective Science Teaching

6.1 Characteristics of lesson planning

6.2 Characteristic qualities of science teacher

6.3 Effective questioning

Unit 07 Evaluation

7.1 Designing a test

7.2 Administering & scoring a test

7.3 Interpreting test results

Text Books

- Lawson, Anton. E. (1995). "Science teaching and development of thinking". California: Wadsworth publishing company
- Rehman Mehmooda (1999). "Teaching of science and mathematics". Peshawar: Ijaz printer, Pakistan