



B.Ed(4 Years) Elementary Education

Code	Subject Title	Cr. Hrs	Semester
EDE- 110	General Science	3	4
Year	Discipline		
2	Elementary Education		

Aims

This course acts as a foundation for the following semesters. The course aims to help the students increase their proficiency in Science by enhancing their knowledge in the subject.

Objectives

After completion of this course prospective teachers will be able to:

- understand the nature of science, scientific attitude and method.
- know their environment and nature better
- understand ecosystems and habitats: chains and cycles
and our effect on environment
- explain population growth: survival and systems of living organisms
- describe physical and chemical properties and physical/chemical processes with a special focus on the change of state of matter and how this change relates to energy
- develop an understanding of matter and particle theory
- describe a chemical reaction in the context of a rearrangement of atoms and also in the context of the formation of a new substance with new properties
- investigate the relationships among force, mass, and motion of an object or system
- read, record, and analyse data and present that data in meaningful ways.

Syllabus

Unit 1:

- Science Concept
- Scientific Attitude and Method
- Branches of Science

Unit 2:

- Ecosystems and habitats: Chains and Cycles
- Our Effect on Environment

Unit 3.

- Population growth: survival and extinction
- Diversity of living things Systems of classification
- Cell and Life
- Diet and Digestion
- Breathing and Respiration
- Blood and Circulation
- Photosynthesis
- Water Uptake and Transportation

Unit 4

- Matter and its States
- Atoms, Molecules Mixture, Element and Compound

- Physical Properties Of Matter, Including Melting Point, Boiling Point, Hardness, Density, and Conductivity, Mixtures,
- Physical and Chemical Change
- Particles, Reaction and Equation
- Atomic Structure
- The Periodic Table
- Earth Science

Unit 5.

- Movement and Motion
- Force and Machines
- Energy Transfer
- Current and Circuit
- Electromagnetism
- Radioactivity

Text Books

- Class 4- 8 General Science

Reference Material

- Pople, S. (2001). Target Science: Physics: Foundation Tier: Oxford University Press: Oxford.
- Clugston, M., & Flemming, R. (2000). Advanced chemistry: Oxford University Press.
- Harlen, W., & Qualter, A. (2004). The teaching of science in primary schools: David Fulton Publishers.
- National Science Foundation . Division of Elementary, S., & Education, I. (1999). Inquiry: Thoughts, Views, and Strategies for the K-5 Classroom: National Science Foundation.
- Schweingruber, H. A., Shouse, A. W., Michaels, S., & Council, N. R. (2007). Ready, set, science!: Putting research to work in K-8 science classrooms: National Academies Press.
- Council, N. R. (2007). Taking science to school: Learning and teaching science in grades K-8: National Academies Press.