

# Chapter 1: NATURE OF SCIENCE IN CHEMISTRY

**CHEMISTRY:** Chemistry is defined as the science that investigates the materials of the universe and the changes that the materials undergo.

**Branches of Chem.**

- ① **Organic Chemistry:** It deals with element and compounds except organic compounds.
- ② **Inorganic Chemistry:** It deals with study of chemical and ionic substances that pollute the environment.
- ③ **Physical Chemistry:** deals with law and theories to understand structure and changes of matter.
- ④ **Analytical Chemistry:** deals with methods and instruments for determining the composition of and properties of matter.

**⑤ Biochemistry:** deals with physical and chemical changes that occur in living organisms.

**Environmental chemistry:** deals with study of chemical and ionic substances that pollute the environment.

**Industrial Chemistry:** deals with large-scale production of chemical substances.

**⑥ Medicinal Chemistry:** It deals with the study of the interaction between drugs and biological targets as well as development of new medicinal agents.

**⑦ Polymer chemistry:** It focuses on the study of polymer, their types, properties, uses, importance and types of polymerization.

**Geochemistry:** It deals with study of chemical composition, distribution and transformation of elements and compounds in Earth's crust.

**⑧ Nuclear Chemistry:** It deals with the changes that occur in atomic nuclei.

**Astrochemistry:** It deals with the study of chemical processes and reactions that occur in astronomical environments.

**Engineering:** Engineering is the application of scientific principles to construct and improve systems, structures and machines.

**Science:** Science is the systematic study to explore the natural world. Science intends to recognize the fundamental principles and processes of the natural world.

**Technology:** The integration of scientific knowledge for human needs is known as technology. This integration provides a pathway to the development of systems, techniques and tools.

## CHEMISTRY IN COOKING :

When you cook, you're doing chemistry! Heat changes the structure of food, like bread rises or when a steak turns brown.

Chemistry impacts everything in the world around us

## Fun Facts :

- Everything is made of atoms.
- Water is great solvent.
- Fire needs oxygen to burn.
- Helium makes your voice high.