

Introduction to Science

 **Science** (L., *scientia* or *scire*, knowledge) – systematic knowledge based on facts, observations and experimentations.

- ❖ On the basis of fields it occupies, science is divided into three main categories – abstract science, social science, and natural science.
- **Abstract science** – study of relationship of magnitude and numbers, e.g., mathematics, statistics, etc.
- **Social science** – study of social activities of man based on traditions and reasoning, e.g., sociology, political science, economics, geography, and so on.
- **Natural science** – also called basic science – study of facts of the nature.
- ❖ Based on the nature of study, natural science is divided into two fields – physical science and biological science.
- **Physical science** – study of nonliving beings and natural phenomena governed by a set of laws, e.g., physics, chemistry, geology, astronomy, meteorology, metallurgy, and so on.
- **Biological science** – also called **life science** or **biology** – study of living beings.
- ❖ On the basis of nature of study it occupies, science is further classified into two branches – pure science and applied science.
- **Pure science** – basic science with extension of knowledge, e.g., discovery, investigation, research, invention, and so on.
- **Applied science** – application of basic knowledge as a technology in the benefit of men in physics, chemistry, geography, geology, astronomy, meteorology, metallurgy, and so on.
- ❖ Similarly, based on the nature of study it occupies, biological science is also categorized into two fields – pure biology and applied biology.
- **Pure biology** – basic biology with extension of knowledge, e.g., discovery, investigation, research, invention, and so on in biology.
- **Applied biology** – application of basic knowledge of biology as a technology in the benefit of men in agriculture, forestry, biotechnology, genetic engineering, and so on.