

## Technology Module T-1

**Agriculturally Based Society:** A society whose economic system is based upon the production of plants and animals.

**Basic Human Needs:** biological, physical, and psychological well being.

**Biologically Related Technology:** A broad and varied field of activity that encompasses the manipulation of biological material by scientific, engineering, and technological methods to provide information, goods, and services. This term also refers to physical and/or information/communication technologies applied to biological systems.

**Careers:** the occupation or work a person is engaged in

**Generic:** of a general nature, not specific to one thing

### 3 Aspects or Areas of Technology

**Physical Technology:** technology that involves the construction or production of products made from living material(s). Including the transportation and production or of living and non-living materials and the distribution of energy.

**Communication/ Information Based Society:** a society whose economy is based on information technologies. **Communication Technology:** A coordinated set of data, procedures, peoples, and equipment that collects, processes, stores, and delivers information.

**Biological Technology:** Has to do with genetic engineering, agriculture (including food production, processing and storage), medical technology, microorganism research, and bio-mechanics.

**Industrially Based Society:** a society whose economy is based on industry

**Innovation:** a new idea, process, or device

**Invention:** a device or process originated after imagination, study, or experiment

**Manual:** involving the use of the human hand

**Manufacturing:** production of tangible (touchable) goods

**Needs:** something required for biological, physical and/or psychological well being

**Wants:** things desired

Need and Wants:

Biological: hunger, thirst

Physical: shelter, clothing, and protection

Psychological: communication, recreation

**Simple Machines:** devices that use mechanical advantage such as levers, pulleys, and wedges.

## **Technology T-1**

### **Key Concepts**

**T-1 A.** People study about technology because much of human progress has occurred as a result of technological development.

**T-1 B.** Work, job opportunities, and careers are in constant change because of the evolution of technology.

**T-1 C.** People's routines are influenced by technology

**T-1 D.** People create and use technology as a means of satisfying basic biological, physical, and psychological human needs and wants.

**T-1 F.** Biologically related technology seeks to satisfy our biological needs, of promotes enhances, and supports the advancement of the improved quality of life.

**T-1 G.** Physical technologies satisfy many physical needs through construction of shelter, transportation of people and goods, and production of clothing and other necessities.

**T-1 H.** Complex technologies develop from more simple technologies, and the development is a constantly evolving process.

**T-1 I.** Technology has existed for over one million years: it is growing at a faster rate today than ever before in history.

**T-1 J** The development of technology results in a greater and more rapid production of goods and communication of information

### **You should be able to:**

Explain how the evolution of physical, biologically related and information/communication aspects of technology led to the shift from an agriculturally based to an industrially based to an information based society.

Given a description of the three aspects of technology, you should be able to give an example from each categories of an application of a modern tool, device, or method that has evolved from simple beginnings, and describe how it has changed daily routines and contributed to human progress.

Give examples of human needs and wants in each of the three aspects of technology.

**History of technology:** The Stone Age, The Bronze Age, The Iron Age, The Pre-Industrial Age, The Industrial Revolution, Recent Times (Atomic Age, Jet Age, Space Age, *Information Age*)

**Exponential Growth:** Technology is growing at an exponential rate. It is doubling every few years. Also the time it takes to double is getting even shorter.