

## **WHAT IS TECHNOLOGY?**

**T**echnology is human innovation in action. It is the principle means by which products and systems are developed to solve problems and extend capabilities. People use technology to develop and improve such activities as the way they communicate, travel, and deliver goods and services. Technology is more than the final, physical products produced, for example the computer; rather, technology encompasses:

- *Processes* - human activities, including creating, inventing, drawing, designing, developing, using, and assessing;
- *Knowledge* - the nature and history of technology; technological concepts and principles; and the relationships with other fields of study, society, and the environment; and
- *Contexts* - large organizational systems of technology, including biological and chemical technology, physical technology and information technology.

## **WHAT IS TECHNOLOGY EDUCATION?**

**T**echnology education is the school subject that teaches students in grades K- 12 how to be technologically literate. In technology education, learning is brought to life through concrete, hands-on learning experiences in laboratory environments. Through drawing, planning, designing, problem solving, building, and testing, students become involved in critical and creative thinking and creative activity. By providing opportunities for students to explore, ask questions, and use resources of information, students learn to construct solutions that lead to more questions and additional solutions. They also learn that there is no perfect design that meets all the criteria and constraints, and therefore, the best design must balance many trade offs.

Students work in individual or group settings to search for better ways to implement technology and assess its impact on themselves and society. This type of learning bridges the gap between the seemingly artificial setting of the school and the realities of everyday life.

The study of technology promotes an interdisciplinary learning environment that enriches all aspects of students' learning experiences. It helps students to understand and apply formulas learned in mathematics and principles studied in science and make connections with other fields of study, such as humanities, art, music, or physical education. Technology education addresses the important question of "Why do I need to learn this?"

## **WHAT IS TECHNOLOGICAL LITERACY and CAPABILITY?**

**T**echnological literacy and capability involves the ability to use, manage, and understand the myriad of technology surrounding us. The technologically literate and capable person has knowledge and understanding of.

- Creating technological devices, means, and systems;
- Using technological systems and products;
- Understanding the interaction of technological systems; and
- Realizing the impacts of technology upon people, society, and the environment.