

## **Technology Education Department**

A central role of an educational institution is to offer a curriculum that gives students a basic understanding of the society in which they live. To maximize students potential we offer a number of challenging courses that are relevant to the world around us. Currently we find the driving force in our economy and society to be technology. With that, we feel that anyone knowledgeable about technology would benefit by being a better informed voter/citizen, by having greater employment opportunities and by having a better understanding of their roll in today's society.

We feel that Technological Literacy is a core content area in contemporary society. We define Technological Literacy as the ability to understand, assess, manage and use technology. Given that understanding, students could hear a television report or read a news article and evaluate the information provided in the story intelligently, put the information in context and form an opinion based on that report. We see our role as being the unifying content area that applies the principles of science and mathematics to solve problems in an effort to improve the world around us. Technology is the world of man made things that in some way make our lives better. Technology is developed through the engineering and design process and includes systems that provide our houses and the many systems within, the roads, dams, tunnels, bridges, televisions, computers, cellular phones, airplanes, spacecraft, toys and machines we use every day. Strand four of the *Massachusetts Science & Technology/Engineering Curriculum Framework* and the International Technology Education Association's *Standards for Technological Literacy* provide the framework for our curricula.

The department offers two types of courses, some are more global in nature while others offer opportunities to investigate a single subject area in greater depth. In some cases there is a series of courses that can develop significant skills and knowledge in a particular area. Engineering & Technology is our recommended entry course, which is global in nature and best prepares students for the technology portion of the MCAS test. Electronics I, Electronics II & III, and Digital Electronics or the multiple Wood Technology courses are examples of a series of courses that can build skills and knowledge to prepare for work in the electronics/woodworking fields or preparation for further study in electronics or electrical engineering or cabinet making and/or woodworking technology. It should be noted that the creative process often considered only in the context of art plays a significant roll in many Technology Education classes

### **7-12 General Learning Goals**

- Critically analyze problems and apply the technological problem solving sequence to the situation or problem presented.
- Apply scientific and mathematical principles to concrete problems.
- Use appropriate tools, machines and materials to safely create solutions to problems presented.
- Articulate both the positive and negative impacts of technology on society.
- Work cooperatively with their peers as they create solutions to problems.
- Build skills and knowledge about technology and its systems.
- Explore both career and leisure time interests.
- Understand and appreciate design principles and standards and the diversity of the individuals and cultures that created them.

