

NEW YORK STATE EDUCATION DEPARTMENT
MIDDLE LEVEL CAREER AND TECHNICAL EDUCATION
TECHNOLOGY EDUCATION
TECHNOLOGY AND SOCIETY
Z & K Z D d d 2023

MODULE DESCRIPTION

Through history, technology and society have moved forward hand in hand. As society determines needs and wants, technological innovations and inventions are developed to meet them. Conversely, technological developments may create new needs and wants. Technology impacts politics, culture, economies, and the environment in ways that may require that technological developments be constrained or controlled by society.

Historically, technological developments had widespread impacts that changed our society. As an example, prior to the invention of the telegraph, news and information traveled only as fast as a horse on land or a boat on water. The invention of the telegraph was beginning of a long chain of communications technologies through the telephone, radio, television, and cellular technologies that allow us to communicate and access information from anywhere in the world on a device that fits in our pocket. Each of these technological developments have driven new and divergent technologies and created new needs and wants. New societal issues have been created with respect to information access, privacy, and identity that were very different in the past. Further, the development of better measurement capabilities from information technology (v)7


MODULE CONTENT

1. THE CULTURAL, SOCIAL, ECONOMIC, AND POLITICAL EFFECTS OF TECHNOLOGY

STUDENTS WILL:

4. THE INFLUENCE OF TECHNOLOGY AND HISTORY

STUDENTS WILL:

- a) Describe how inventions and innovations have evolved through methodical tests and refinements
 - b) Describe how specialization of products and systems have led to technological improvements
 - c) Evaluate how contemporary understanding of measurement, mathematics, and control systems have aided or promoted the development and refinement of technological devices and systems
 - d) Demonstrate how the knowledge of science and mathematics has impacted invention and innovation in technological systems
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STANDARDS ADDRESSED

NEW YORK STATE CAREER DEVELOPMENT AND OCCUPATIONAL STUDIES
(CDOS) STANDARDS

STANDARD 1: CAREER DEVELOPMENT

INTERNATIONAL TECHNOLOGY AND ENGINEERING EDUCATION ASSOCIATION

Standard 4: Students will develop an understanding of the cultural, social, economic, and political effects of technology.

Standard 5: Students will develop an understanding of the effects of technology on the environment.

Standard 6: Students will develop an understanding of the role of society in the development and use of technology.

Standard 7: Students will develop an understanding of the influence of technology on history.

RESOURCES

Disclaimer: Posting of resources on this form does not constitute an endorsement from the New York State Education Department nor does it imply that the following resources are mandatory or the only ones that can be used. Teachers and administrators ensure that resources align with local policies and are responsible for choosing the resources that have the final authority, in alignment with local policies, to choose and utilize the resources that best meet the needs of their students. Questions regarding compliance with [Education Law 2013](#) should be directed to your administrator and/or chief information officer.

NOVA- PBS

<http://www.pbs.org/wgbh/nova/>

The NOVA series contains many videos and other programs that include current science and technology topics. The videos are available through both the general site and a special education section that has hundreds of engineering-related videos, lesson plans, and interactive activities.

INTERNATIONAL TECHNOLOGY AND ENGINEERING EDUCATORS' ASSOCIATION

www.iteea.org

ITEEA is the international organization that represents technology and engineering educators. The organization supports an annual conference and publishes two journals, Technology and Engineering Educator and Journal of Technology Education. Many resources are available for classroom teachers including Engineering by Design. ITEEA developed and maintains the Standards for Technological Literacy.

NEW YORK STATE TECHNOLOGY AND ENGINEERING EDUCATORS' ASSOCIATION

www.nysteea.org

NYSTEEA represents Technology and Engineering Educators across New York State. The website includes information on technology content, current developments in Technology and Engineering Education, professional development opportunities, and other resources for technology educators.

NEW YORK STATE DEPARTMENT OF LABOR: NEW YORK STATE CAREER ZONE

<https://www.careerzone.ny.gov>

Career Zone is a most online career exploration and planning tool developed by the New York State Department of Labor. It offers career and education information on thousands of careers, as well as, self-assessment and career planning tools. Career Zone is appropriate for users from middle school through adult.

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CAREER AND TECHNICAL EDUCATION TECHNICAL ASSISTANCE CENTER NEW YORK

<http://nyctecenter.org/>

The Career and Technical Education Technical Assistance Center (CTE TAC) operates under a state contract to assist the New York State Education Department (NYSED) in carrying out its mission of improving the quality, access, and delivery of career and technical education through research-based methods and strategies resulting in broader CTE opportunities for all students.