

Industrial Technology

Engineering

2007

Nature of Technology	Technology and Society Interaction	Technology for Productivity	Technology and Communications Applications
<p>Definition: Students learn that technology is exponential, driven by history, design, and commercialization shaped by need, creative/inventive thinking, economic factors and cultural influences.</p>	<p>Definition: Students recognize and understand the impact technology has on society and history. Students engage in ethical use of technology</p>	<p>Definition: Students learn the operation of technology through the use of technology and productivity tools.</p>	<p>Definition: Students use an array of technologies and apply design concepts to communicate with multiple audiences, acquire and disseminate information and enhance learning.</p>
<p>Questions: What is technology? What makes technology useful?</p>	<p>Questions: What are ethical ways for using technology? How does technology affect technology?</p>	<p>Questions: What tools increase industry productivity? How are technology tools used to increase productivity?</p>	<p>Questions: Is technology an effective way to communicate and problem solve?</p>
<p>Indicators: 1. Understand, evaluate and make connections between the seven technology sectors 2. Apply technological knowledge in decision-making. 3. Examine and apply other fields of study when solving engineering problems</p>	<p>Indicators: 4. Interpret and practice responsible citizenship relative to technology 5. Demonstrate the relationship among people, technology and the environment, and understand the positive and negative impacts of these technology systems. 6. Interpret and evaluate the influence of engineering throughout history, and predict its impact on the future 7. Analyze ethical and legal technology issues and formulate solutions and strategies that foster responsible technology usage</p>	<p>Indicators: 8. Integrate conceptual knowledge of technology systems in determining practical applications for learning and technical problem solving 9. Identify, select and apply appropriate technology tools and resources to produce creative works and to construct technology-enhanced models</p>	<p>Indicators: 10. Identify communication needs; select appropriate communication tools; design collaborative, interactive projects and activities incorporating emerging technologies, to communicate with others 11. Create, publish and present information utilizing formats appropriate to the content and audience 12. Apply appropriate communication design principles in published and presented projects</p>

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Technology and Information Literacy	Design	Designed World
<p>Definition: Students engage information literacy strategies, use the Internet technology tools and resources, and apply information management skills to answer questions and expand knowledge.</p>	<p>Definition: Students apply problem- solving strategies demonstrating the nature of design, the role of engineering, and the role of assessment.</p>	<p>Definition: Students understand their role in the designed world.</p>
<p>Questions: What makes a person technologically literate? How is technology applied?</p>	<p>Questions: What is the problem solving and design process?</p>	<p>Questions: What processes and materials are used in industrial technology and how are they graphically represented?</p>
<p>Indicators: 13. Select and apply an evaluative process to all informative sources chosen for a project 14. Apply research process model to conduct research and meet information needs 15. Evaluate choices of electronic resources and determine strengths and limitations</p>	<p>Indicators: 16. Identify and produce a product or system using a design process; evaluate the final solution and communicate the findings 17. Recognize the role of teamwork in engineering design, and acknowledge the role of prototyping in the design process 18. Understand and apply research, development and experimentation to problem-solve</p>	<p>Indicators: 19. Classify, demonstrate, examine and appraise energy and power technologies 20. Classify, demonstrate, examine and appraise transportation technologies 21. Classify, demonstrate, examine and appraise manufacturing technologies 22. Classify, demonstrate, examine and appraise information and communication technologies</p>