

Nature of Technology	Technology and Society Interaction	Technology for Productivity Applications	Technology and Communication Applications
<p><i>Students develop an understanding of technology, its characteristics, scope, core concepts* and relationships between technologies and other fields.</i></p> <p><i>*The core concepts of technology include systems, resources, requirements, optimization and tradeoffs, processes and controls.</i></p>	<p><i>Students recognize interactions among society, the environment and technology, and understand technology's relationship with history. Consideration of these concepts forms a foundation for engaging in responsible and ethical use of technology.</i></p>	<p><i>Students learn the operations of technology through the usage of technology and productivity tools.</i></p>	<p><i>Students use an array of technologies and apply design concepts to communicate with multiple audiences, acquire and disseminate information and enhance learning.</i></p>
<p>What is technology? What makes technology useful?</p>	<p>How does technology affect society? What are right and wrong ways to use technology?</p>	<p>How do technology tools affect learning?</p>	<p>Is technology an effective way to communicate? What effect does media format have on our ability to communicate?</p>
<p>1. Analyze information relative to the characteristics of technology and apply in a practical setting.</p> <p>2. Apply the core concepts* of technology (*including resources, requirements, optimization, and tradeoffs) in a practical setting.</p> <p>3. Analyze the relationships among technologies and explore the connections between technology and other fields of study.</p>	<p>4. Benchmark A: Analyze technologically responsible citizenship.</p> <p>5. Benchmark B: Describe and explain the impact of technology on the environment.</p> <p>6. Benchmark C: Describe how design and invention have influenced technology throughout history.</p> <p>7. Benchmark D: Articulate intellectual property issues related to technology and demonstrate appropriate, ethical and legal use of technology.</p> <p>8. Benchmark E: Assess the impact of technological products and systems.</p>	<p>9. Demonstrate an understanding of concepts underlying hardware, software, and connectivity (e.g. LAN, WAN, USB, hubs and Internet).</p> <p>10. Select appropriate technology resources to solve problems and support learning (e.g. edit video clips, create a video production).</p> <p>11. Use productivity tools to produce creative works to prepare publication to construct technology-enhanced models.</p> <p>12. Continue to demonstrate techniques to build keyboarding accuracy and speed.</p>	<p>13. Communicate information technologically and incorporate principles of design into the creation of messages and communication products (multimedia presentations, communications products).</p> <p>14. Develop, publish, and present information in a format that is appropriate for content and audience (use software to produce homework assignments, reports, flyers, newsletters, slide presentations, use productivity tools).</p> <p>15. Select appropriate technology communication tools and design collaborative interactive projects and activities to communicate with others (use e-mail functions, compose e-mails, and incorporate advanced techniques such as attachments, format stationary, and create an address book).</p>

Technology and Information Literacy

Design

Designed World

Students engage in information literacy strategies, use the Internet, technology tools and resources, and apply information-management skills to answer questions and expand knowledge.

Students apply a number of problem-solving strategies demonstrating the nature of design, the role of engineering and the role of assessment.

Students understand how the physical, informational and bio-related technological systems of the designed world are brought about by the design process. Critical to this will be students' understanding of their role in the designed world: its processes, products, standards, services, history, future, impact, issues and career connections.

What makes a person information literate? What makes a resource reliable? What makes information relevant?

How can the design process aid in understanding? How does design influence use? How does use influence design?

Do people drive systems or do systems drive people? How do people drive progress and innovation?

16. Evaluate the accuracy, authority, objectivity, currency, coverage and relevance of information.

19. Evaluate the aesthetic and functional components of a design and identify creative influences.

22. Demonstrate an understanding of and be able to, select and use physical technologies.

17. Use technology to conduct research and follow a research process model with includes the following: developing an essential question; identifying resources; selecting, using and analyzing information; synthesizing and generating a product; and evaluating both process and product.

20. Recognize the role of engineering design and of testing in the design process.

23. Demonstrate an understanding of, and be able to, select and use informational technologies.

18. Select, access, and use appropriate electronic resources for a defined information need.

21. Understand and apply research, innovation, and invention to problem-solving.

24. Demonstrate an understanding of how bio-related technologies have changed over time.