

# Grades 9, 10, 11, 12

Adopted 2007

## Nature, Concepts and Systems (systems thinking, interactions, and design)

### **1: Students understand the history and progression of technology in relation to the development and design of future technology.**

1. Compare and contrast how societal changes mirror innovations and emerging technologies. [9-12.NC.1.1](#)
2. Predict how the evolution of technology will influence the design and development of future technology. [9-12.NC.1.2](#)

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### **2: Students analyze the parts of a technological system in terms of input, process, output, and feedback.**

1. Analyze technology systems to make informed choices. [9-12.NC.2.1](#)

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### **3: Students analyze the relationships and the connections between technologies in different fields of study and how they apply to communities.**

1. Analyze intended and unintended impacts of a system. [9-12.NC.3.1](#)
2. Integrate technology into school, home and community. [9-12.NC.3.2](#)
3. Evaluate technologies that increase educational and workplace opportunities [9-12.NC.3.3](#)

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### **4: Students understand the purpose and demonstrate the use of the design process in problem solving.**

1. Compare and contrast other problem-solving and decision-making methods. [9-12.NC.4.1](#)
2. Formulate a technological solution using data-driven decision making. [9-12.NC.4.2](#)

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## Social Interactions in Information & Communication Technology

### **1: Students understand the safe, ethical, legal, and societal issues related to technology.**

1. Evaluate the need for acceptable use policies. [9-12.SI.1.1](#)
2. Compile a list of immediate and long-range effects of ethical and unethical uses of technology on individual and society. [9-12.SI.1.2](#)

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**2: Students investigate the advantages and disadvantages of technology.**

1. Analyze advantages and disadvantages of widespread use and reliance on technology in the workplace and in society as a whole. 9-12.SI.2.1
  2. compare and contrast society's influence on technology and technology's influence on society. 9-12.SI.2.2
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**Information &  
Communication  
Technology Tools**

**1: Students recognize and demonstrate skills in operating technological systems.**

1. Incorporate knowledge and enhanced usage skills to create a product. 9-12.CT.1.1
  2. Apply strategies for identifying and solving routine hardware and software issues. 9-12.CT.1.2
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**2: Students use technology to enhance learning, extend capability, and promote creativity.**

1. Utilize a virtual learning environment as a strategy to build 21st century learning skills. 9-12.CT.2.1
  2. Investigate to apply expert systems, intelligent agents, and simulations in real-world situations. 9-12.CT.2.2
  3. Utilize online information resources routinely and efficiently to meet needs for collaboration, research, publication, communication, and productivity. 9-12.CT.2.3
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**3: Students evaluate and select information tools based on the appropriateness to specific tasks**

1. Select and apply technology tools for research, information analysis, problem solving, and decision making in content learning. 9-12.CT.3.1
  2. Organize and manage personal/professional information using technology tools. (e.g., finances, schedules, addresses, purchases, correspondence). 9-12.CT.3.2
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**Information &  
Communication  
Technology Processes**

**1: Students understand the purpose of information technologies to communicate with a variety of collaborators.**

1. collaborate with external peers, experts, and others by using technology to compile, synthesize, produce, and disseminate information, models, and other creative works. 9-12.CP.1.1
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**2: Students exchange information and ideas for an identified purpose through Information Technologies.**

1. Adapt delivery of communication based on available information technologies. 9-12.CP.2.1
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## Information Literacy

### **1: Students use technology to locate and acquire information.**

1. Design a research project using a variety of technologies to find information to solve a real-world problem. [9-12.IL.1.1](#)
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### **2: Students determine the reliability and relevancy of Information**

1. Independently evaluates the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources. [9-12.IL.2.1](#)