South Dakota Technology

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

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

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

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

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

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

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

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

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

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

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

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`

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`