

**Connecticut State Department of Education**  
Information and Technology Standards  
High School Grades 9-12

**Essential Questions**

***Definition and Identification of Information Needs***

What do students need to know prior to using information and technology resources?

***Information Strategies***

What are the learning skills and strategies that students need to successfully find information?

***Information Processing***

How do students evaluate and use information resources?

***Application***

How do students use information and technology to express and communicate ideas?

***Technology Use***

What type of technological tools will students use?

***Responsible Use***

What are student responsibilities regarding the use of information and technology?

***Assessment***

How do students evaluate the process and the final product?

***Definition and Identification of Information Needs***

**Students will define their information needs and identify effective courses of action to conduct research and solve problems.**

Students will clearly state the scope and criteria for a given task and demonstrate the ability to communicate them to others, independently.

Students will independently identify and assess existing knowledge related to a given task and articulate information needs to information providers or peers.

Students will develop essential questions related to a topic and formulate a research hypothesis related to the topic.

Students will search print, non-print and digital resources within and outside the school, independently.

Students will determine a course of action that demonstrates the selection of appropriate strategies and resources for accomplishing a task, independently.

***Information Strategies***

**Students will understand and demonstrate information skills and strategies to locate and effectively use print and non-print resources to solve problems and conduct research.**

Students will apply principles of information systems organization to a variety of print and non-print resources.

Students will routinely and efficiently, use online information resources to meet the needs for research, publications, and communications.

Students will access specific information from print and non-print resources by using internal organizers (e.g., indexes, cross-references).

Students will plan and design methods to collect reliable data for particular purposes and audiences, using advanced reference materials, indexes, dictionaries and abstracts.

Students will determine the best tool for locating information and use key word descriptors and Boolean logic to perform advanced on-line and CD-ROM searches (e.g., field searches).

Students will use, independently, the full range of print and non-print resources within the school or district.

Students will demonstrate the ability to solve problems by collecting, analyzing and interpreting data through the use of data management software (database, spreadsheets, etc.).

Students will select and use, independently, an appropriate search engine or directory related to a specific task.

Students will identify key words for searching information sources, independently.

### ***Information Processing***

**Students will apply information from a variety of sources and formats using evaluative criteria to interpret, analyze, organize and synthesize both print and non-print material.**

Students will develop and use personal and established criteria for selecting materials of appropriate breadth and depth of detail, format, illustrations, special features, level, content, purpose and intended audience.

Students will demonstrate ability to identify and compare sources of information and apply multiple evaluative criteria, including purpose, point of view, biases and stereotypes, accuracy, continuity and currency.

Students will organize, analyze and synthesize information to draw meaningful conclusions through written, oral, numeric and visual communications, independently.

### ***Application***

**Students will use appropriate information and technology to create written, visual, oral and multimedia products to communicate ideas, information or conclusions to others.**

Students will use in depth applications of appropriate software and hardware to organize, analyze and interpret information.

Students will determine appropriate technology(s) and format(s) to clearly present information gathered from a variety of print and non-print resources, for a variety of audiences.

### ***Technology Use***

**Students will operate and use computers and other technologies as tools for productivity, problem solving and learning across the content areas.**

Students will operate school hardware and demonstrate ability to understand and use capabilities of the school network and software, independently.

Students will use content-specific tools and software.

Students will maintain proficiency in keyboarding.

Students will produce a variety of products using the advanced features of personal productivity software.

Students will use telecommunications collaborate with peers, experts and others to research, compile, synthesize, produce and disseminate information or creative works.

Students will identify and apply strategies for solving hardware and software problems outside the school environment.

Students will demonstrate the ability to identify, assess and adapt to new technology tools and resources.

Students will analyze the educational, social and ethical issues related to the increased reliance on computers and other technologies.

Students will identify evaluative criteria for making informed decisions about computers, peripherals and other technology tools.

### ***Responsible Use***

**Students will demonstrate the responsible, legal and ethical use of information resources, computers and other technologies.**

Students will observe local, state and national laws and policies and procedures regarding the use of print and non-print information resources, computers, other technologies and networks.

Students will apply established citation standards for a wide range of information sources and formats.

Students will demonstrate an understanding of the process for copyrighting/protecting their own original work.

Students will adhere to the district's acceptable use and copyright policies as well as local, state and national laws and policies.

*Assessment*

**Students will assess the effectiveness of their information and technology choices for problem-solving and communication.**

Students will assess, independently and continuously, the relevance, completeness and accuracy of gathered information and the efficiency of the research process.

Students will assess, independently, whether their products meet established standards for process, product and presentation.