

# Grades 9, 10, 11, 12

Adopted 2006

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

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

Clearly state the scope and criteria for a given task and demonstrate the ability to communicate them to others, independently

Independently identify and assess existing knowledge related to a given task and articulate information needs to information providers or peers

Develop essential questions related to a topic and formulate a research hypothesis related to the topic

Search print, non-print and digital resources within and outside the school, independently

Determine a course of action that demonstrates the selection of appropriate strategies and resources for accomplishing a task, independently

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## 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.**

Apply principles of information systems organization to a variety of print and non-print resources

Routinely and efficiently, use online information resources to meet the needs for research, publications, and communications

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

Plan and design methods to collect reliable data for particular purposes and audiences, using advanced reference materials, indexes, dictionaries and abstracts

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)

Use, independently, the full range of print and non-print resources within the school or district

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

Select and use, independently, an appropriate search engine or directory related to a specific task

Identify key words for searching information sources, independently

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## 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**

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

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

Organize, analyze and synthesize information to draw meaningful conclusions through written, oral, numeric and visual communications, independently

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## Application

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

Use in depth applications of appropriate software and hardware to organize, analyze and interpret information

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

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## Technology Use

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

Operate school hardware and demonstrate ability to understand and use capabilities of the school network and software, independently

Use content-specific tools and software

Maintain proficiency in keyboarding

Produce a variety of products using the advanced features of personal productivity software

Using telecommunications collaborate with peers, experts and others to research, compile, synthesize, produce and disseminate information or creative works

Identify and apply strategies for solving hardware and software problems outside the school environment

Demonstrate the ability to identify, assess and adapt to new technology tools and resources

Analyze the educational, social and ethical issues related to the increased reliance on computers and other technologies

Identify evaluative criteria for making informed decisions about computers, peripherals and other technology tools

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## Responsible Use

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

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

Apply established citation standards for a wide range of information sources and formats

Demonstrate an understanding of the process for copyrighting/protecting their own original work

Adhere to the district's acceptable use and copyright policies as well as local, state and national laws and policies

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## Assessment

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

Assess, independently and continuously, the relevance, completeness and accuracy of gathered information and the efficiency of the research process

Assess, independently, whether their products meet established standards for process, product and presentation.