

Grades 9, 10, 11, 12

Adopted 2010

Students access information.

1.1 Recognize the need for information:

- a. Identify topics, broaden or narrow a topic, and develop ideas to direct the focus of an inquiry.
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1.2 Formulate appropriate questions:

- a. Generate research questions based on interests, observations, information, stories, and issues or on an assigned topic.
 - b. Develop and present a clear thesis statement or hypothesis.
 - c. Finalize the research question or hypothesis by conducting preliminary research.
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1.3 Identify and locate a variety of resources online and in other formats by using effective search strategies:

- a. Use a variety of search engines and licensed and free databases to locate appropriate information.
- b. Search for information on Web sites by using "tags" and hierarchical directories.
- c. Use the hierarchy of a URL through successive truncations to navigate a site.
- d. Search for information by using advanced search skills (e.g., Boolean operators, adjacency, proximity, wild card symbols, truncation).
- e. Search for information by using both controlled vocabulary (e.g., subject headings, descriptors) and natural language.
- f. Differentiate between scholarly and popular publications in print or digital format.
- g. Create and save searches and bibliographies within library catalogs and databases.
- h. Identify the structural features of informational text and use the features to locate information (e.g., expository text, public documents, journal articles).
- i. Select and use appropriate tools and technology to locate resources.
- j. Identify, compare, and contrast the bibliographic information provided in a printed or digital book or on a Web site.
- k. Use a variety of print, media, and online resources to locate information, including encyclopedias and other reference materials.
- l. Demonstrate a variety of research methods used in different disciplines (e.g., the humanities, sciences, social sciences).

1.4 Retrieve information in a timely, safe, and responsible manner:

- a. Demonstrate proper procedures and good citizenship online.
 - b. Understand how to access and retrieve resources from local, regional, state, and national libraries through interlibrary loan and other means.
 - c. Use "pre-search" strategies to identify what should be read in depth (e.g., scan titles, headings, captions, introductions, summaries, and conclusions).
 - d. Analyze the structure and format of informational text that make information accessible and usable (e.g., graphics, sequence, diagrams, illustrations, charts, maps).
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Students evaluate information.**2.1 Determine the relevance of the information:**

- a. Evaluate online search results, demonstrating an understanding of how search engines determine rank or relevancy.
 - b. Analyze important ideas and supporting evidence in an information source by using logic and informed judgment to accept or reject information.
 - c. Interpret meaning from charts, maps, graphs, tables, and pictures.
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2.2 Assess the comprehensiveness, currency, credibility, authority, and accuracy of resources:

- a. Verify the authenticity of primary and secondary source information found online.
 - b. Identify bias and prejudice in historical interpretations.
 - c. Analyze media for purpose, message, accuracy, bias, and intended audience.
 - d. Determine whether resources are designed to persuade, educate, inform, or sell.
 - e. Use systematic strategies and technology tools to organize and record information(e.g., anecdotal scripting, footnotes, annotated bibliographies).
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2.3 Consider the need for additional information:

- a. Determine and use strategies for revising, improving, and updating knowledge of a subject.
 - b. Review work through self-reflection, peer review, and teacher feedback to determine whether the information is sufficient and the research process was effective.
 - c. Understand that some areas of investigation have inadequate existing material and require a change in plan, change in topic, or original research.
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Students use information.

3.1 Demonstrate ethical, legal, and safe use of information in print, media, and online resources:

- a. Demonstrate respect for intellectual property, copyright restrictions, fair use, and public-performance rights when downloading or duplicating media.
- b. Understand the differences between quoting, summarizing, and paraphrasing and apply these skills to one's own work.
- c. Use appropriate conventions for documentation in the text, footnotes, references, and bibliographies by adhering to an acceptable format.
- d. Recognize and protect the private information of oneself and others.
- e. Describe safe online shopping practices.
- f. Describe the implications of criminal activities (e.g., generating viruses, hacking, identity theft, accessing illegal images).
- g. Use materials, equipment, and facilities responsibly and independently.
- h. Describe the privileges and responsibilities outlined in the school's (or school district's) Internet acceptable-use policy.
- i. Practice strategies to protect digital devices (e.g., antivirus software, secure connections, encryption, operating-system updates).
- j. Define and defend the need for intellectual freedom.

3.2 Draw conclusions and make informed decisions:

- a. Analyze information from multiple sources and identify complexities, discrepancies, and different perspectives of sources.

3.3 Use information and technology creatively to answer a question, solve a problem, or enrich understanding:

- a. Explain how meaning is conveyed in image and sound and recognize that many media messages are constructed to generate profit, influence viewers, or both.
- b. Analyze design elements of various kinds of media productions and identify media messages that have embedded points of view.
- c. Identify capabilities and limitations of tools for organizing and using information.
- d. Produce media efficiently and appropriately to communicate a message to an audience.
- e. Design experiments, surveys, and interviews, individually or in a group as needed, to investigate research questions.
- f. Analyze and interpret results of experiments, surveys, and interviews, using quantitative and qualitative methods.
- g. Be aware of the impact of personal bias when interpreting information.
- h. Draw clear and appropriate conclusions supported by evidence and examples.
- i. Use common organizational patterns, such as logic, analogy, compare and contrast, problem and solution, cause and effect, to inform or persuade.
- j. Construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations, using appropriate citations.

Students integrate information literacy skills into all areas of learning.

4.1 Read widely and use various media for information, personal interest, and lifelong learning:

- a. Independently read two million words annually, including a wide variety of classic and contemporary literature, magazines, newspapers, and online information.
- b. Demonstrate competence and self-motivation in reading, listening, and viewing information.
- c. Develop strategies to focus on personal learning.
- d. Demonstrate personal responsibility for lifelong learning.
- e. Select information on a topic of interest.

4.2 Seek, produce, and share information:

- a. Locate information independently to satisfy curiosity.
- b. Contribute actively to the learning community, and participate in groups to pursue and generate information.
- c. Demonstrate and advocate legal and ethical behavior among peers, family members, and their communities when using information resources and technology.
- d. Use technology to communicate, share information, and collaborate with others with the same interests.
- e. Organize personal digital information by using metadata, key words, and tags.

4.3 Appreciate and respond to creative expressions of information:

- a. Read and listen to a range of literary and other creative forms of expression (e.g., poetry, drama, film, literature, visual arts).
- b. Monitor one's own progress in seeking and handling information, and adapt as necessary.