

Grades 4, 5

Adopted 2010

Define and Refine Problem or Question: Students will be able to follow an inquiry process to define a problem, formulate questions, and refine either or both to meet a personal and/or assigned information need.

A. Follow an Inquiry Process

1. Follow an inquiry process and connect the process to real life.
 - a. With guidance, identify the inquiry process used in the school.
 - b. With guidance, explain how the process can be used in real life.
 - c. With guidance, follow the inquiry process used in the school for an assigned information need.
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B. Define a Problem, Formulate Questions, and Refine a Problem and/or Question

1. Identify an assigned or personal information need.
 - a. Identify an assigned information need.
 - b. Identify a personal information need.
 2. Determine the scope of the information need.
 - a. With guidance, collaboratively create, refine, and use criteria to determine the scope of an information need.
 3. Formulate and refine questions to meet an information need.
 - a. Use prior knowledge to individually formulate and refine questions to meet an information need.
 - b. Collaboratively, identify which formulated questions are researchable.
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Locate and Evaluate Resources and Sources: Students will be able to follow an inquiry process to identify, locate, evaluate, and select resources and sources in a wide variety of formats to meet the information need in an ethical manner.

A. Locate and Evaluate Resources

1. Identify resources to meet the information need.
 - a. With guidance, explore and identify human, print, online, and multimedia resources.
 - b. With guidance, decide which resources best match an identified information need.
 - c. With guidance, refine or revise researchable questions based on access to and availability of resources.
2. Use safe practices when online.
 - a. Identify, review, and follow the district's Acceptable Use Policy and school-based computer use rules.
 - b. With guidance, identify safe and unsafe online practices

B. Locate and Evaluate Sources

1. Locate and select sources to meet the information need.
 - a. Identify the sections of the media center and the attributes of the sources located within each section.
 - b. With guidance, use the media center's catalog to locate sources to meet the information need.
 - c. Apply knowledge of search strategies to locate relevant sources.
 - d. Select print, online, and multimedia sources.
 2. Evaluate sources to meet the information need.
 - a. With guidance, evaluate sources based on currency, authority, bias, and relevance to select sources that best meet the information need.
 - b. With guidance, use text features effectively to select sources that meet the information need.
 - c. With guidance, defend selected sources.
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Find, Generate, Record, and Organize Data/Information:
Students will be able to follow an inquiry process to find, generate, record, and organize information relevant to the information need in an ethical manner.

A. Find Data/Information within a Variety of Sources

1. Use specific sources to find information.
 - a. Use keywords and text features that help find information within a specific source.
 - b. Explain which strategies (keywords, text features) are used to find information within a specific source.
 - c. With guidance, use technology tools to find data/information within a specific source.
 2. Evaluate the relevance of information within a specific source to meet the information need.
 - a. Differentiate between fact and opinion within a specific source.
 - b. Confirm that the information found within a specific source matches the information need.
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B. Generate New Data/Information in an Ethical Manner.

1. Generate new data/information from interviews and/or surveys.
 - a. With guidance, generate appropriate questions to meet the information need.
 - b. With guidance, generate information in an appropriate format (e.g., video or audio recording, notes, graphic organizer, table).
 - c. With guidance, exhibit ethical behavior in generating information.

C. Record and Organize Data/Information

1. Record data/information in a variety of formats.
 - a. Explain why a specific format is being used to record data/information to meet the information need.
 - b. Identify significant characteristics of various organizational formats (e.g., alphabetical; chronological; part to whole; general to specific; main idea and supporting details; compare/contrast; cause and effect; categorizing).
 - c. Determine an appropriate format to record and organize data/information.
 - d. Use keywords to identify relevant information.
 - e. Avoid plagiarism by correctly recording information word for word and keeping track of the source.
 - f. Use technology to record and organize data/information.
 2. Use an appropriate and accepted citation style to create a source list.
 - a. Explain the purpose of giving credit to sources of information.
 - b. Identify and define the components of a citation given the type of source (book; print encyclopedia; online encyclopedia; Web site; database; periodicals).
 - c. Create a source list using an accepted citation style.
 - d. With guidance, use technology to create a source list in an accepted citation style.
 3. Revisit the information need.
 - a. Reflect upon the need to revise research questions and, with guidance, refine research questions based on new information discovered in the inquiry process
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Interpret Recorded Data/Information:
Students will be able to follow an inquiry process to interpret recorded data/information to create new understandings and knowledge related to the information need in an ethical manner.

A. Interpret Recorded Data/Information

1. Evaluate and analyze the quality of recorded data/information to meet the information need.
 - a. Identify the main idea of the recorded information.
 - b. Compare recorded information to prior knowledge and make personal connections.
 - c. Evaluate recorded information for relevance, completeness, and, with guidance, accuracy and discrepancies.
 - d. Check recorded information to ensure the information product will contain data/information from multiple sources.
 - e. Find and record missing or additional data/information
2. Apply critical thinking skills and problem-solving strategies to the recorded data/information to meet the information need.
 - a. Determine whether the recorded data/information is fact or opinion and use it appropriately to meet an information need.
 - b. Ethically and accurately summarize and paraphrase the recorded data/information.
 - c. With guidance, identify point of view within the recorded data/information.
 - d. With guidance, identify and analyze patterns within the recorded data/information to create categories.
 - e. With guidance, make connections and inferences using prior knowledge and the recorded data/information.
 - f. With guidance, use technology to support critical thinking skills and problem-solving strategies to meet the information need.
3. Apply ethical practices to the evaluation and analysis of the recorded data/information.
 - a. Explain why ideas, words, images, music (all forms of data/information) are intellectual property and must be cited in a source list.
 - b. With guidance, avoid plagiarism by citing all summarized and paraphrased recorded data/information.
 - c. With guidance, identify possible alternative interpretations applicable to the recorded data/information.

B. Create New Understandings and Knowledge

1. From the recorded data/information, ethically create new understandings and knowledge related to the information need.
 - a. With guidance, synthesize the recorded data/information from multiple sources.
 - b. Draw conclusions from the recorded data/information to create new understandings.
 - c. Reflect and decide on the order in which to organize or present the recorded data/information
 - d. Defend the conclusions drawn from the recorded data/information.

Share Findings/Conclusions: Students will be able to follow an inquiry process to share findings/conclusions in an appropriate format to support written, oral, and multimedia information products and evaluate the products and the processes in an ethical manner.

A. Share Findings/Conclusions

1. Use a variety of formats to prepare the findings/conclusions of the information need for sharing.
 - a. With guidance, organize and display findings/conclusions in a variety of formats, including the use of technology.
 - b. With guidance, design layouts that communicate content effectively for intended audiences.
 - c. With guidance, apply appropriate design criteria, which includes universal design principles, to the content and layout of the information product.
 - d. With guidance, use technology to present findings/conclusions in a variety of formats.
 - e. With guidance, edit/review/revise/practice the presentation of the information product.
 - f. Discuss and apply fair use, copyright laws, and Creative Commons attributions.
2. Share findings/conclusions.
 - a. Contribute to a learning community.
 - b. With guidance, practice digital etiquette when sharing findings and conclusions.
 - c. With guidance, credit sources using an appropriate citation format as part of the information product.

B. Evaluate the Product and the Process

1. Evaluate the inquiry process and the information product.
 - a. With guidance, create and apply criteria for evaluating the information product.
 - b. With guidance, use audience feedback and/or peer review to reflect on the information product and the learning experience.
 - c. Reflect on the information need and new knowledge.
 - d. Respond to a directed reflection on the inquiry process and how to use it more effectively and efficiently.
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Appreciate Literature and Life-long Learning: Students will be able to demonstrate an appreciation of literature and multimedia as a reflection of human experience and use the inquiry process for life-long learning.

A. Appreciate Literature and Multimedia

1. Identify relationships between fiction and nonfiction literature and real life.
 - a. With guidance, read, listen to, view, and discuss literature that reflects personal interests, provides imagined experiences, and validates individual concerns and real experiences.
 - b. Make literature-to-self, literature-to-literature, and literature-to-multimedia connections, and, with guidance, make literature-to-world connections.
 - i. Summarize the main idea in literature and/or multimedia.
 - ii. Identify how various literary elements influence/inform the reader's experience of literature.
 - c. Read, listen to, view, and integrate information from non-fiction to enhance comprehension of fiction.
 - d. Use literature to answer questions or solve problems.
 - e. Use literature to evaluate historical problems, current social events, and personal decisions.
2. Select literature and/or multimedia from the library media center and other libraries for a personal and/or assigned need.
 - a. Follow circulation procedures and policies in the library media center and other libraries.
 - b. Locate and select literature and/or multimedia in a variety of genres.

B. Demonstrate Life-long Learning Practices

1. Connect literature and multimedia to learning.
 - a. Explain the connection between reading, listening, and viewing literature and/or multimedia and being successful in personal and academic pursuits/endeavors.
 - b. Defend literature and/or multimedia choices.
 - c. With guidance, explain why intellectual freedom is important and how it can be preserved.
 - d. With guidance, contribute to a learning community.
 - e. With guidance, adopt new technology or methodology to expand personal and academic pursuits/endeavors.