### Connect

**Connecting to an Inquiry Topic and Using Prior Knowledge to Choose Topic**

**Middle School**
- Able to identify and generate a list of key concepts and keywords for research from prior knowledge, reading and class discussion.
- Finds areas of passion or interest within topics of study.
- Read and understand assignment requirements.
- Revises a question in order to arrive to arrive at a manageable topic for inquiry.
- States what is known about the problem or question and makes connections to prior knowledge.
- Uses multiple sources to acquire background information and brainstorms ideas for further inquiry.

**Upper School**
- Asks, “What about this topic is personally interesting to me and important? What about this topic do I want to pursue when I have an opportunity?"
- Explores problems or questions for which there are multiple answers or no “best” answer.
- Reads background information to discover the complexities of the problem or question and brainstorms ideas for further inquiry.
- Verifies the accuracy of what is known about the problem or question.
- While reading background information, identifies key words, concepts, and synonyms, both stated and implied, for topic and uses them to further research.

### Wonder

**Wondering/Brianstorming**

**Middle School**
- Asks questions to clarify topics or details.
- Assesses questions to determine which can be answered by simple facts, which cannot be answered, and which would lead to an interesting inquiry.
- Determines what information is needed to support the investigation and answer the questions.
- Determines what resources will most likely offer quality information.
- Forms tentative thesis about main idea with guidance.
- Formulates questions about the topic with guidance.
- Plans inquiry to test hypothesis or support/validate thesis.
- Refines questions to guide the search for different types of information (e.g. overview, "big idea," specific detail, cause and effect, comparison).
- Uses prior knowledge and understanding of overall topic to make predictions about what the new information will reveal.
Writes questions independently based on key ideas or areas of focus.

Upper School
Brainstorms ideas for further information.
Develops a schema or mind map to express the big idea of a topic and the relationships among supporting ideas and topics of interest.

**Investigate**

**Keywords/Search Terms**

Middle School
Generates a list of key concepts and keywords for research.

Upper School
Conducts advanced database searches using Boolean logic and other advanced search functions.
Maintains a list of effective search terms throughout the process of inquiry.

**Narrowing Down a Topic**

Middle School
Using search skills, demonstrates the ability to refine a broad research topic to a more narrow and well-defined research research question or topic.

Upper School
Develops and refines the topic, problem, or question independently to arrive at a worthy and manageable topic for inquiry.

Focuses the purpose of the research by formulating specific questions to be answered.

Uses prior knowledge, understanding of essential ideas and questions, and comprehensive background information to make predictions about specific information needed to answer questions and about the effectiveness of potential sources.

**Searching**

Middle School
Identifies and uses the organizational structures of a nonfiction book (table of contents, index, etc.) to locate information.
Identifies the ten major Dewey Decimal System areas and what main topics are included in each.
Recognizes the organization and use of special sections in the library (e.g. reference, graphic novels, fiction/nonfiction).
Understands that research requires patience as well as persistence.
Uses navigation tools of a web site and library database to find information.
Uses online catalog independently to locate specific books, get classification numbers and browse the shelves.
Uses online sources such as encyclopedias, online databases, and libguides to locate information on assigned topics.
Uses table of contents, index, chapter and section headings, topic sentences and summary sentences to locate information and select main ideas.
Uses the Dewey categories to locate resources and browses for additional materials.
Using keywords and key concepts, searches pre-selected web sites, library databases and LibGuides to find information that is appropriate to the task at hand.

Upper School
Adjusts search strategies by comparing information gathered with the problem or question.
Extends search beyond readily available sources to ensure accuracy and comprehensiveness.
Identifies, finds, and uses scholarly secondary sources.
Uses search strategies (Boolean operators, synonyms and relational searching) to broaden and narrow searches and locate appropriate resources.
Uses technology resources such as the online catalog, online encyclopedias, online databases, Web subject directories, and links from valid Web sites to locate primary and secondary information on topics of inquiry.

Using Multiple Sources/Seeking Multiple Perspectives

Middle School
Recognizes that own point of view influences the interpretation of information.
Seeks balanced view by using diverse sources to access appropriate material.
Selects and uses multiple appropriate print, nonprint, electronic and human sources (including almanacs, indexes, specialized dictionary and encyclopedias and research databases, librarians and teachers) to answer questions.
Understands that the librarian and teacher are eager and ready to help with research process.
Uses and distinguishes between primary and secondary sources.

Upper School
Counts the effect of bias on the accuracy and reliability of information by actively pursuing a balanced perspective.
Maintains an open attitude about new areas of the subject that were previously unknown or overlooked.
Pursues a balanced perspective by evaluating information based on authority, accuracy, point of view, and reliability.
Recognizes competing interpretations of historical events and issues and the reasons for those differences.
Searches for a variety of different source types for primary and secondary sources.
Seeks and uses many different sources in a variety of formats to obtain balanced and complex information and to fill information needs effectively.
Seeks resources with diverse opinions and points of view and evaluates them carefully, particularly on controversial, historical or culturally based topics. Uses specialized source materials to find specific, in-depth information.

**Questioning & Evaluating Sources**

**Middle School**
- Evaluates information for usefulness, currency, authority and accuracy.
- Notes similarities and differences in information from two different sources.
- Questions text during listening or reading.
- Recognizes the effect of different perspectives and points of view on information.
- Selects information based on authority and point of view.
- Takes the time to skim the accumulated resources and knows when enough information has been gathered!
- Uses both facts and opinions responsibly by identifying and verifying them.

**Upper School**
- Evaluates information from a variety of sources for accuracy, appropriateness, validity and comprehensiveness.
- Evaluates the authority of a source by assessing the credentials and reputation of the author, creator and publisher.
- Plans inquiry to systematically test hypothesis or to gather evidence to validate thesis.
- Recognizes degrees of bias (from slightly slanted point of view to heavily slanted propaganda).
- Refines questions to provide a framework for the inquiry and to fulfill the purpose of the research (e.g., questions to lead to historical context and interpretation; questions to elicit accurate facts about scientific problem or issue).
- Uses text structures to derive relationships among ideas and deeper meaning (signal words; patterns such as cause/effect, comparison, sequence; foundational vs. detailed information).

**Analyzing Sources/Notetaking/Paraphrasing/Categorization**

**Middle School**
- Differentiates between important and unimportant details.
- Distinguishes between fact and opinion.
- Follows a complete research plan and stays on a timeline.
- Interprets information taken maps, graphs, charts and other visual sources.
- Paraphrases and summarizes information that answers research questions.
- Uses notetaking strategies, e.g. bullet points, outlining, underlining, categorizing, highlighting, graphic organizers, 2 column notes.
- Uses prior knowledge and experiences to understand new facts and ideas.
- Uses skim/scan to location information that is appropriate to age and ability level.

**Upper School**
Categorizes information; adds new categories as necessary; explores connections among categories.
Challenges ideas in text and makes notes of questions to pursue in additional sources.
Evaluates, paraphrases, summarizes, and interprets information that answers research questions and gives an accurate picture of the research topic.
Independently recognizes gaps in information (based on the complexity of the problem or question).
Recognizes that even accurate facts can be misleading if relevant facts are omitted or if context is not provided.
Uses the organizational features of a book as well as abstracts, tables, charts and first and last chapters to locate main ideas, specific supporting evidence, and a balanced perspective.
When taking notes, uses collaborative and independent digital or print tools (noodletools, note cards) to record and organize information.

**Construct**

**Citation**

**Middle School**
- Demonstrates ability to embed parenthetical citations to attribute sources using Modern Language Association style.
- Demonstrates ability to identify and record bibliographic components of a source.
- Understands how to create and share Works Cited lists using online bibliographic software program in Modern Language Association Style.
- Understands the essential need to give credit to sources consulted for research.

**Upper School**
- Cites all sources used according to standard style formats.
- Recognizes and identifies fields all pieces of a source's bibliographic information that needs to be included in citation.

**Drawing Conclusions**

**Middle School**
- Analyzes disparate points of view discovered in different sources.
- Draws a conclusion about the main idea or ideas.
- Interprets information and ideas by defining, classifying, and inferring.
- Makes inferences with guidance.
- Questions the differences between sources and seeks additional sources to resolve.

**Upper School**
- Communicates new understandings through designing, inventing, composing, transplanting and constructing.
- Critically examines and analyzes relevant information from a variety of sources to discover relationships among ideas.
Presents conclusions to answer the question or problem.

**Making Claims/Developing a Line of Argument/Using Evidence to support claims**

**Middle School**
- Compares information found to tentative thesis or hypothesis; revisits and revises thesis/hypothesis as appropriate.
- Forms opinions and judgments backed up by supporting evidence.
- Identifies facts and details that support main ideas or thesis.
- Makes inferences based on explicit information in text.

**Upper School**
- Analyzes different points of view and determines best supported point of view by sorting and sifting evidence.
- Assesses and revises own work using own revision process.
- Changes own ideas based on the ideas of others.
- Combines ideas and information to develop and demonstrate new understanding.

Constructs a analytical historical thesis statement that can be supported with evidence
- Develops own point of view and supports with evidence.
- Draws clear and appropriate conclusions supported by evidence and examples.
- Identifies and addresses previously held misconceptions.
- Presents different perspectives with evidence for each.
- Understands and builds on the ideas of others.

**Organizing Information**

**Middle School**
- Uses common organizational patterns and structures (chronological order, main ideas with supporting evidence) to organize information.

**Upper School**
- Builds a conceptual framework by synthesizing ideas gathered from multiple sources.
- Organizes information independently, deciding the structure based on the relationships among ideas and general patterns discovered.
- Organizes notes and ideas using both print and electronic tools to create the most appropriate organizational pattern to express the connections and patterns.

**Express**

**Presentation of Research Final Product**

**Middle School**
- Checks for accuracy and completeness to ensure project meets requirements in rubric.
- Drafts the presentation/product.
Identifies and uses a variety of tools to organize information, create a product, and enhance communication.

Presents information clearly so that main points are evident.

Publishes final product for a particular audience and purpose.

Uses multiple strategies to revise product based on self-assessment, teacher feedback or peer feedback.

Uses writing process to develop expression of new understandings.

**Upper School**

Chooses the most appropriate format, tone and language to communicate ideas clearly in real world formats to different audiences.

Drafts the presentation/product to present an argument, point of view, interpretation, or new model most effectively with supporting evidence.

Identifies and uses a variety of technology tools, including web-based interactive tools, to organize information, create a product, and enhance communication with a real world application.

Produces properly formatted list of citations and appendixes.

Publishes final product for an authentic audience and real world application.

Uses visuals, electronic tools and multimedia to communicate meaning.

**Reflection**

**Self-Reflection**

**Middle School**

Identifies own strengths and sets goals for improvement.

**Upper School**

Evaluates own product and process throughout the work and uses self assessment, teacher feedback, and peer feedback to make revisions when necessary.

Identifies and evaluates the important and subtle features for an effective product.

Identifies own strengths and sets goals for improvement.

Records individual experience of the inquiry process – the hardest part, best part, skills learned, insights experienced, etc. – with suggestions for future improvements.