American Association of School Librarians
TRANSFORMING LEARNING

Developing Inquisitive Learners, Critical Thinkers, and Resourceful Citizens

Activity Guide

Developed for the American Association of School Librarians
by the 2023 ALA Emerging Leaders-Team A

Developing Inquisitive Learners, Critical Thinkers, and Resourceful Citizens

Activity Guide

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Foreword

With the amount of misinformation and disinformation which is amplified by social media in today's world, it is more important than ever to focus on the Inquire Shared Foundation of the *National School Library Standards for Learners, School Librarians, and School Libraries*. This Shared Foundation focuses on the school librarian's role in teaching our learners the necessary skills for the inquiry process. It is important that all learners are able to find, organize, evaluate, use, and critically think about information to support their learning and lives.

A Key Commitment of the Inquire Shared Foundation is: **"**Build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving new problems" (AASL 2018, 67). It is necessary for students to learn these skills to be successful in today's information-rich world. The *Developing Inquisitive Learners, Critical Thinkers, and Resourceful Citizens* guide and its accompanying infographic and applied framework will be excellent resources for school librarians to guide their learners to develop their curiosity and become inspired self-learners who can use the inquiry process to answer their questions, think critically, solve problems, and become resourceful citizens.

The activity guide provides scenarios, questions for further discussion, and sample activities for each of the AASL Standards Frameworks—Learner, School Librarian, and School Library— across the four Domains—Think, Create, Share, and Grow. These engaging activities will support school librarians in their application of the AASL Standards to teach information literacy skills and to embed the inquiry process across all that they do.

I want to thank the 2023 Emerging Leaders Team—Cybele Garcia Kohel, Sara Levine, Brittany Sharitz, and Brandi Veal—for their hard work in developing this excellent guide. Thank you also to AASL Member Guide Courtney Lewis for her guidance on their project. Finally, thank you to AASL staff member Stephanie Book for her work in steering the project through its design and layout. I'm confident that this wonderful guide will inspire school librarians to strengthen and continue their work in supporting all learners to become inquisitive critical thinkers and resourceful citizens.

Kathy Lester
AASL President, 2022-2023

Introduction

Central to the profession and acknowledged as Common Belief #5 in the *National School Library Standards for Learners, School Librarians, and School Libraries*, "intellectual freedom is every learner's right" (AASL 2018, 13). However, in an increasingly polarized world, learners' access to information is under attack but the role of the school library is to be a stronghold of intellectual freedom for learners of all ages. As school librarians, we are tasked with empowering learners "to develop the ability to think clearly, critically, and creatively about their choices, rather than allowing others to control their access to ideas and information" (AASL 2018, 13). For true inquiry to take place and for learner curiosity to be able to manifest, school librarians must remove barriers for learners and increase access. Inquiry is inherent to a school library and at its essence, is a microcosm of the thought processes learners will face once they leave the controlled and linear thinking of a traditional classroom.

The world and its workplaces today require citizens who are inspired self-learners. Learners who can employ an inquiry process to solve problems begin to see authentic purposes for their questions, becoming more resourceful and adaptive citizens. For the school librarian, cultivating a culture of inquiry goes further than teaching research skills and the act of asking good questions. Thomas Jefferson famously stated, "Information is the currency of democracy" and for learners preparing to enter the world, it is vital for them to be able to have a firm grasp on information literacy skills.

In an effort to help school librarians develop physical and digital spaces conducive to equitable inquiry, the AASL cohort of the 2023 ALA Emerging Leaders were tasked with creating an activity guide to develop materials that support professional development and instruction around the skills inherent in the *National School Library Standards* (2018) Shared Foundation of Inquire—to "build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving new problems" (AASL 2018, 67). This activity guide will help school librarians as they face challenges towards access to information needed by learners to be well-informed members of society. Furthermore, it pushes the reader to consider the importance of the process of inquiry as well as the end-product for learners.

At the heart of the Inquire Shared Foundation is teaching information literacy skills to all learners. Fueled by the inquiry process, learners must be able to find, organize, evaluate, use, and critically think about information to support their learning and their lives. Embedding the act of inquiry into everything we do with our learners is essential for thinking critically in an increasingly diverse society.

What's in This Guide?

This activity guide is housed on the AASL Standards Web portal and is available to all professionals. The guide includes:

- **Scenarios** for learners, school librarians, and school libraries for each of the four Domains (Think, Create, Share, and Grow).
- **A collection of activities** and Web resources, organized by Domain:
    - To support professional development and instruction utilizing the inquiry process.
    - To assist school librarians supporting learners as they explore learning through inquiry methods.
    - To encourage learners and school librarians to approach the inquiry method with respect for a wide variety of perspectives.
    - To offer strategies for information organization that encourages and engages learners in inquiry processes.
- **A resource matrix** offering a quick reference for tools supporting inquiry. Organized by tool type, the matrix also indexes activities in which the resources are featured throughout the guide.
- **An infographic** to help school librarians visually display their role in teaching the inquiry process and to facilitate conversations with other educators around the ideals of the Inquire Shared Foundation.

This collection of resources and activities is not meant to represent all inquiry methods and approaches. The ALA Emerging Leaders team hopes the guide will encourage discussions around the importance of these topics and ways to implement best practices. Table 1 provides a focus for each section of the guide and questions to begin the conversation.

[AASL Standards Framework Applied to Developing Inquisitive Learners]
Explore this activity guide using the AASL Standards Framework as an alternate table of contents. Navigate to relevant scenarios, activities, and resources for reflection and instruction to support building competency in the Shared Foundation of Inquire.

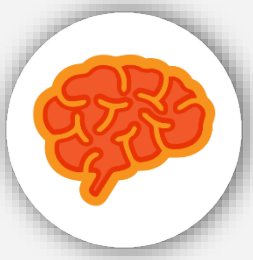


Table 1: Understanding Inquire through the AASL Standards Frameworks

Frameworks	**Purpose**	**Questions**
 Learners	Enable learners to engage in the inquiry process	To what extent does reflecting on prior knowledge help learners generate new knowledge and understanding? In what ways can learners reflect on acquired knowledge in order to ask new questions that further the inquiry process? How can the inquiry process generate opportunities for learners to engage and exchange ideas with others?
 School Librarians	Build common understanding among educators and learners to grow as researchers	In what ways can school librarians collaborate with other educators to stimulate learners' curiosity through the inquiry process? How can school librarians facilitate opportunities for other educators and learners to evaluate background knowledge and develop questions to guide inquiry? To what effect does modeling and applying the inquiry process for learners and educators have on embedding a culture of inquiry and lifelong learning?
 School Libraries	Cultivate an environment that supports curiosity and critical thinking	What effect does implementing a common inquiry model across grade bands have on critical thinking as learners grow through multiple grade levels and disciplines? How does the school library provide equitable access to resources that promote inquiry and exploration? To what extent does the school library offer the flexibility that provides opportunities for learners and educators to access resources and information and the point of need?

Learners

Those who work closely with young learners know that the ability to ask questions about the world around us is a seemingly innate quality. Yet certain aspects of modern life and education can stunt this wonder and curiosity. If learners are to be prepared for a lifetime of critical thinking and problem solving, they must be skilled inquirers. They must have the skills to ask questions about personal and academic topics, build new understanding from prior knowledge, collect and evaluate evidence, and communicate findings and new opinions with others. Organized by the Domains—Think, Create, Share, and Grow—the scenarios and activities in this section provide ways for learners to purposefully engage in the inquiry process thus allowing them to grow as lifelong learners.

Think

The scenarios and activities in this section are built on the Inquire Shared Foundation using the Think Domain for learners and the following Competencies.

A. Think: Learners display curiosity and initiative by:

1. Formulating questions about a personal interest or a curricular topic.
2. Recalling prior and background knowledge as context for new meaning.

Scenario: Diving into the Research Process

Ms. Thomas is a ninth-grade English educator teaching a nine-week Intro to Research course. She recently introduced the second big project of the course, a short persuasive essay where learners are invited to engage in research on an injustice in the world that they find interesting. Given the nature of the course, the class has been visiting the school library weekly to work with the school librarian, Mrs. Willis, with lessons that range from choosing topics to accessing and evaluating different types of sources.

Luna, a nonbinary learner in Ms. Thomas' class has chosen to research a personal interest: gender inequality/discrimination in the school setting. Luna dreads starting the project because despite being an avid writer, they struggled with the research process during the previous unit. Specifically, Luna had trouble selecting a topic and presenting balanced coverage of their topic.

Luna's dread lightens a bit after realizing they already know quite a bit about the topic. In fact, after reflecting on some of the information they already knew, Luna decides to go ahead and formulate a thesis statement. Excited about their work, Luna proceeds to share their newly developed thesis statement with both educators. Mrs. Willis instantly notices a

change in Luna since the last assignment. It is clear that in this unit Luna is more excited and eager to begin the early stages of research and engage in a deeper exploration of their topic. However, in conversations with the classroom educator Ms. Thomas, Mrs. Willis detects that Luna might be falling into some of the same issues they experienced in the previous assignment. Mrs. Willis realizes that some review of the steps in the research process might be needed. What type of feedback might Mrs. Willis offer to Luna on how best to proceed from this point while still encouraging their newfound excitement in the research process?

Questions for Further Discussion:

- How might the school librarian encourage Luna to be more balanced in the research process and use their prior knowledge as a springboard towards developing new information and assessing gaps in current knowledge?
- How can the school librarian continue to encourage Luna's curiosity by getting Luna to formulate questions to guide their research?
- What strategies can be utilized by the school librarian to teach learners about the connected steps of information gathering, question formulation, and sense making?

Activity #1: Organizing the Inquiry Process

Objective: Learners recall prior and background knowledge as context for new meaning.

When beginning a research project, graphic organizers can help learners access prior knowledge and organize information in order to plan for their next steps. Traditionally, a "K-W-L Chart" prompts learners to identify what they already know (K), what they want (W) to know, and what they learned (L) along the way. More recently, this chart has evolved to incorporate new columns.

Figure 1a. KWHL Chart

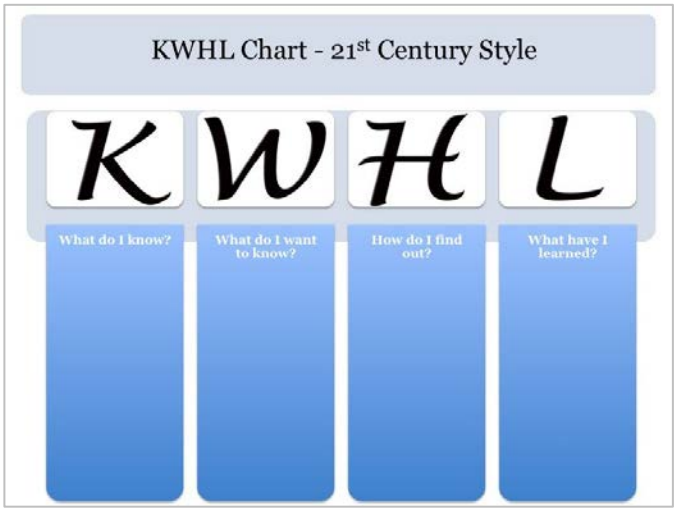
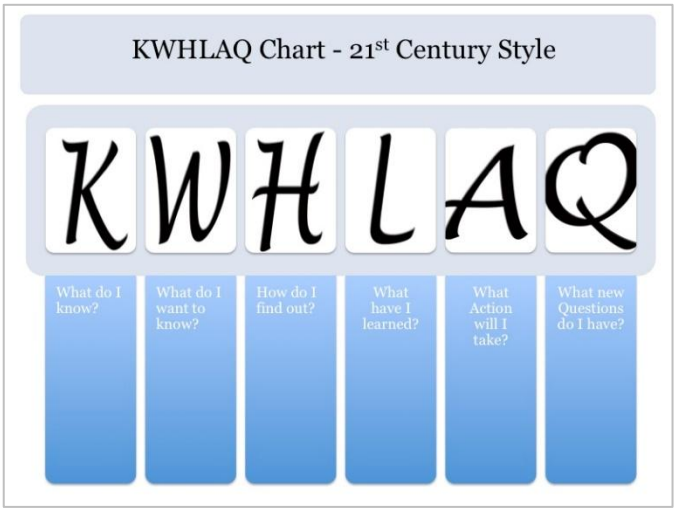


Figure 1b. KWHLAQ Chart



Source: Sylvia Rosenthal Tolisano, *Upgrade your KWL Chart to the 21st Century* (Langwitches: The Magic of Learning, 2011).

In the first organizer (figure 1a), the additional column "H" asks, "How do I find out?" which prompts the learners to identify tools and resources available that will aid in their research. In the second organizer (figure 1b), two more new columns are added. Column "A" asks, "What Action will I take?" This question encourages learners to think about what they will do with the information gathered. Finally, column "Q" asks, "What new Questions do I have?" Including this column furthers inquiry by prompting learners to continue asking questions. Additional Resources and lesson ideas regarding this model can be found on Inspiring Inquiry: KWHLAQ Chart: Developing the Thinking Process.

Activity #2: Round Table Information Collection

Objective: Learners build collective background knowledge.

During a whole group discussion, school librarians and classroom educators can quickly gather information about what the class already knows about a particular topic. It is helpful for educators to assess the background knowledge and understanding of the learners prior to beginning instruction to adjust the pedagogy or content to best meet the needs of the learner. Using a learning structure from Kagan's Cooperative Learning called "Continuous Round Table," learners collect as much information as they can in a designated time frame.

Continuous Round Table Structure (Kagan 2015)

1. Announce the topic and provide learners some time to think on the topic.
2. Create small groups (3-5 learners) and provide each with one piece of paper and one writing utensil. Then, describe the round table activity and designate the amount of time groups have to complete the activity.
3. Once the timer starts, the small groups work clockwise around the table with each learner writing a word or phrase that is related to the topic provided.
    a. Example #1: If the topic is Ocean Animals, learner responses may be sharks, sea turtles, jellyfish, etc.
    b. Example #2: If the topic is Genres of Books, learner responses may be realistic fiction, nonfiction, mystery, etc.
    c. Example #3: If the topic is Banned Books, learner responses may be *Where the Wild Things Are*, *All Boys Aren't Blue*, *Front Desk*, etc.
4. Learners continue to write their responses and pass their paper clockwise around their group until the timer goes off or the facilitator tells them to stop.
5. Encourage groups to take turns sharing what they wrote with the class, adding new information to a collective chart or document.

You can use this activity with classes in the school library. However, consider completing this activity with the classroom educator. This demonstration can empower educators to repeat this exercise with future classes before coming to the school library in order to maximize

their time in the library and its resources. Once educators and learners gather and document their background knowledge, they can begin to ask questions and look for resources with the school librarian to guide further inquiry and maximize their time in the school library.

Kagan Online provides access to resources and tools that aid educators by providing learning protocols to use in the classroom that promote equitable opportunities and enhance engagement for all learners.

Activity #3: Levels of Questions

Objective: Learners use Bloom's Revised Taxonomy to formulate questions about a personal interest or a curricular topic.

When beginning a research project, the first steps typically include recognizing a need for information. This might mean gaining an understanding of the information need, reconciling prior knowledge and potential gaps in knowledge, and eventually question making as a means of directing research efforts. To empower learners to be well-equipped to explore their own curiosities and use question making as a tool for fighting one's own preconceived notions on a topic, teach learners how to write different types of questions that can allow for greater self-directed learning.

Bloom's revised Taxonomy is a guiding method to help learners make sense of the cognitive processes through accessing and using knowledge at various levels of depth. The taxonomy is often used as a questioning tool to encourage learners' thought at different levels. This tool can also be flipped and used as an access point for learners when it comes to teaching strategies for question development.

Learners at all levels can benefit from practicing the creation of questions at various levels of depth as a means to help them better access and find information that will address their information needs. Note, while younger learners might struggle with development of some of the higher-level questions, efforts should still be made to expose them to different levels.

For this activity, provide the class with instruction on different types of questions, and then facilitate group work where the learners can practice generating questions according to the different layers of the revised Taxonomy.

Question Development Group Work

1. Divide learners into small groups.
2. Once in groups, offer prompts to which learners will have to use Bloom's Revised Taxonomy to ask questions that apply to each level of the framework. Prompts should differ by group. Using these prompts, ask groups to brainstorm topic ideas that they are interested in and use those ideas for this activity.

Organized similar to a gallery walk, post large papers in separate areas of the room with different prompts on each. Ask groups to rotate through the room asking a question on each chart to get practice posing questions on the different levels of the framework.

As a follow-up or extension activity, have learners choose a personal topic of interest to independently practice question formulation in an area of personal curiosity.

Create

The scenarios and activities in this section are built on the Inquire Shared Foundation using the Create Domain for learners and the following Competencies.

B. Create: Learners engage with new knowledge by following a process that includes:

1. Using evidence to investigate questions.
2. Devising and implementing a plan to fill knowledge gaps.
3. Generating products that illustrate learning.

Scenario: Supporting In-Cass Learning by Allowing Learners Multiple Ways to Access Resources

Mary Jackson STEAM Elementary School, a suburban school, has a fifth-grade sleep-away science trip to Catalina Island every year. In preparation for this year's trip, the science educator, Mr. Ghazarrosian, has assigned the second semester class a research project culminating in a presentation focused on the Catalina ecosystems. Each learner in Mr. Ghazarrosian's class chose a type of ecosystem to research: terrestrial, fresh water, or marine water. Along with the ecosystem, learners must choose an example of a mammal and non-mammal from that ecosystem and explain how the animals have adapted to their ecosystem with a slideshow, video, or poster.

Jericho, a learner in Mr. Ghazarrosian's class who prefers the pronouns they/them, chose to study the terrestrial ecosystem and must explore how their chosen ecosystem and animals might be impacted by climate change 500 years from now. Due to after-school commitments, Jericho doesn't have a lot of time to find the information they need for this report. Jericho approaches Ms. Wilson, the school librarian, with their dilemma.

Questions for Further Discussion:

- How can the school librarian best support Jericho in finding the research needed for the project?

- What strategies can the school librarian recommend to Jericho, so they are able to maximize their time with the materials?
- What tools can the school librarian teach Jericho and other learners to support their creative presentations?

Activity #1: Learning the School Library Ecosystem

Objective: Learners maximize time spent searching for information used to explore their questions and evidence for their writing.

Learners, especially at the elementary school level, need to learn how to use an online library catalog. Teaching learners how to use online resources and databases is an important transferable skill when learners enter a new school or access a new library that may have a different online platform. When learners first understand where and how to look for trusted information, they can then identify sources to explore their questions and research topics.

Start by creating both short lessons and one-page step-by-step instructions for:

1. Logging into an online library
2. Searching the catalog
3. Saving "lists" of resources
4. Placing items on hold
5. Accessing other library resources, such as online encyclopedias, Libguides, or e-books

In addition, create Libguides for subjects such as climate change and technology, which are topics that change so quickly it can be difficult for a school library to maintain current materials. Keeping a list of online resources for other educators and learners will help them find the most current information. The following examples may appear in a resource list on climate change:

- National Oceanic and Atmospheric Administration: Resource collections for education
- Environmental Protection Agency: Climate change resources for educators and learners
- Common Sense Media: Climate change resources for educators and learners

You may also encourage learners to utilize online encyclopedias, such as Britannica School, which will have the most up-to-date information on climate change.

- Britannica School Elementary https://school.eb.com/levels/elementary
- Britannica School Middle https://school.eb.com/levels/middle
- Britannica School High https://school.eb.com/levels/high
- Britannica School Escolar (Spanish) https://escolar.eb.com/levels

If a learner does not have access to the internet or a computer at home, coordinate with their classroom educators for special, focused library time during the school day to conduct research.

Activity #2: Learners Organize Research

Objective: Learners organize the information they find for the research products they are creating.

Learning to synthesize and organize information is a critical skill for learners to master and which school librarians can support. Create a simple worksheet, or graphic organizer, for learners to use in note taking. The worksheet should prompt learners to note key facts and where they were found and can be easily adapted for all levels of learners. Work with classroom educators to create custom worksheets for specific assignments. Explore techniques for organizing research from Beryl Lively Library. Figures 2a and 2b provide an example of two different graphic organizers to help learners organize facts around a common idea, theme, or topic and then draw connections between those facts to explain their thinking.

Figure 2a. Graphic Organizer: Organize Your Facts!

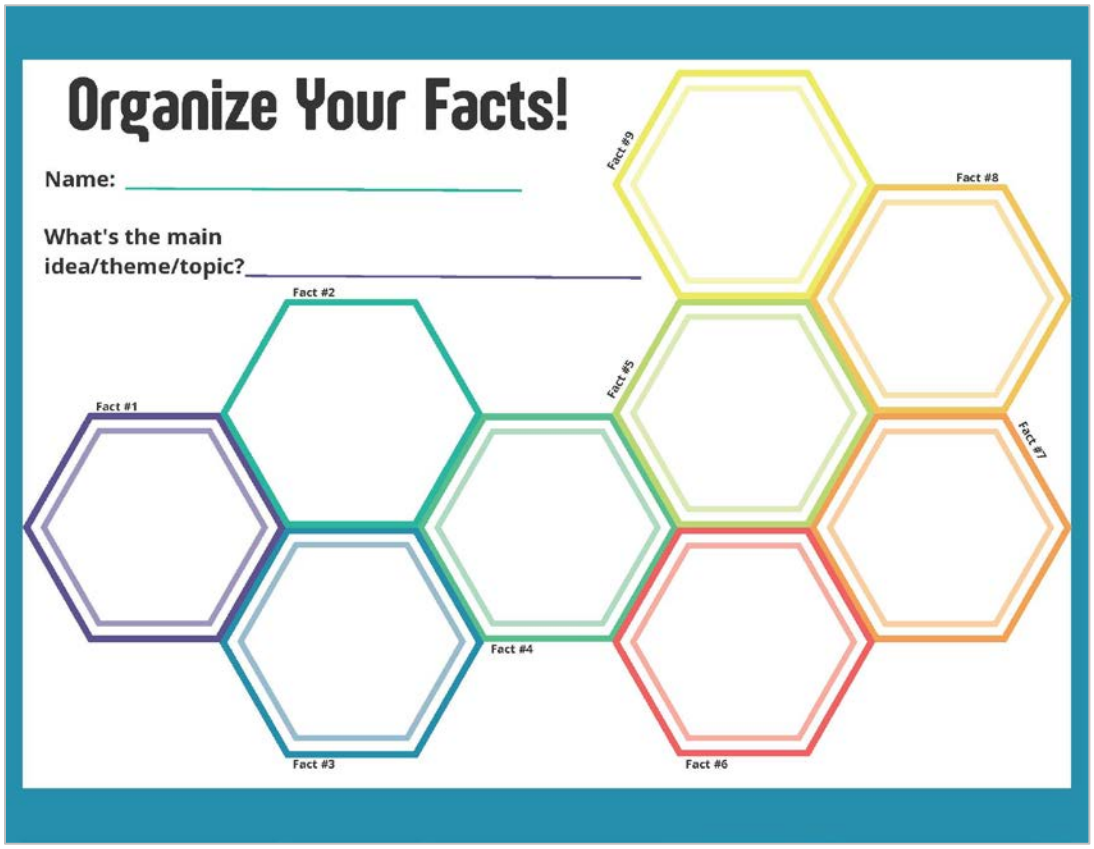
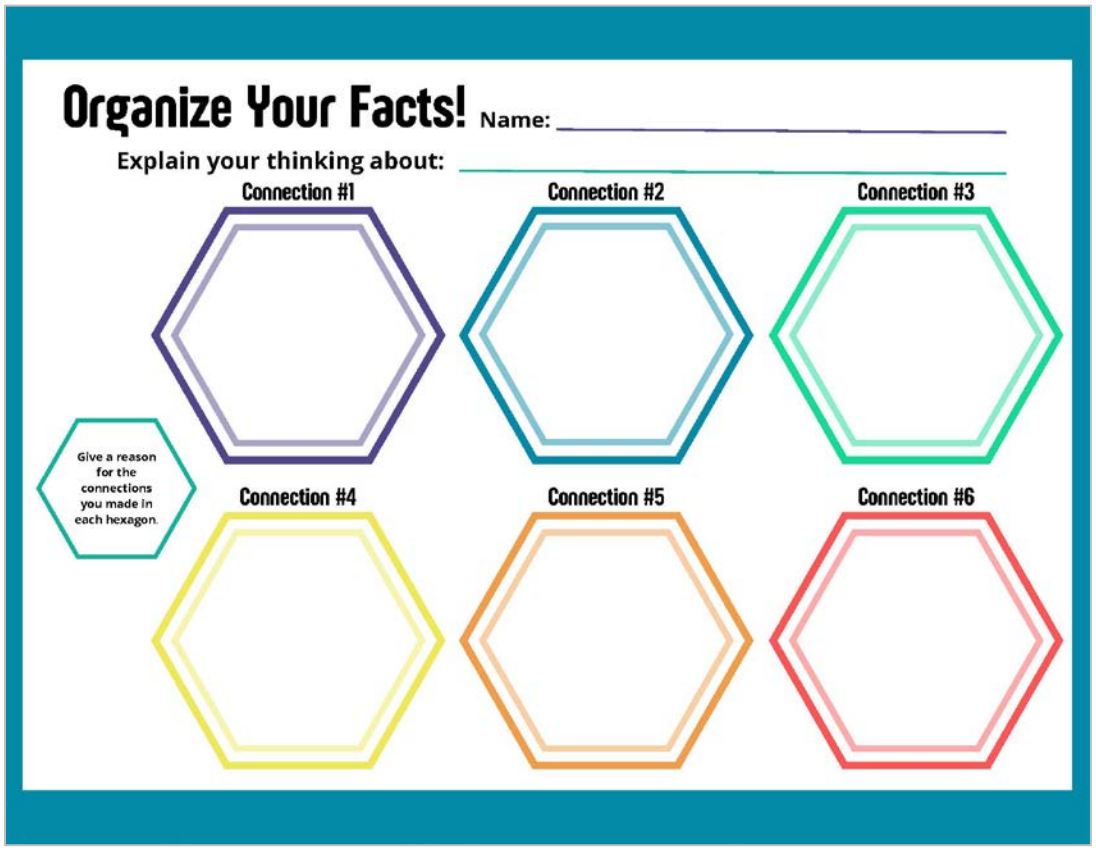


Figure 2b. Graphic Organizer: Organize Your Facts!



Source: Created by Cybele Garcia Kohel using Canva for Jackson Elementary School

Activity #3: Learners Present Their Findings

Objective: Learners use creative tools to present their knowledge.

Learners can ask a school librarian for assistance in not only finding and organizing information, but also exploring how best to present information. Learners can ask for assistance on how to use apps and programs to utilize for a presentation. Learners may want to create slides, an infographic, or even a digital book to present to the class. Knowing how to use the technology a district has available for learners is an important part of a school librarian's job. Here are a few examples of technology that will allow learners to present their information in different ways.

- Book Creator: This app and website enables users to create digital books with turning pages.
- Canva: Templates and graphics offered through the Canva app and website help users create infographics, slideshows with animation, and any number of reports and marketing materials.
- Google Slides: Google has a wide variety of slide templates and is easy to use and adapt.

Share

The scenarios and activities in this section are built on the Inquire Shared Foundation using the Share Domain for learners and the following Competencies.

C. Share: Learners adapt, communicate, and exchange learning products with others in a cycle that includes:

1. Interacting with content presented by others.
2. Providing constructive feedback.
3. Acting on feedback to improve.
4. Sharing products with an authentic audience.

Scenario: Peer Research Review

Tou is an eighth-grade learner at a sixth-through twelfth-grade community school in a suburban neighborhood. Tou is disillusioned by school and does the bare minimum of work to pass his classes yet still be eligible to play sports. Further, unknown to his friends, a few months ago Tou started seeing a therapist due to an increasing problem with anxiety. A condition which, along with its typical side effects, has been making him feel isolated and alone even when surrounded by people and has contributed to further exacerbating his disengagement from school.

One of Tou's classes this semester is Health, and despite his usual apathy towards school, he has recently been surprised by his own uptick in engagement in the class given a personal interest in the unit of study, mental illnesses. His health educator, Ms. Flores, has assigned them a culminating project for the unit that tasked learners with creating a public service announcement (PSA) to raise awareness for their chosen mental illness health concern. Ms. Flores notes that this assignment is one way to start thinking about the school community and the impact learners can have on their peers and beyond.

When the project was first assigned, Tou was only partially paying attention in class. He knew he would have to complete the project but at the time, to manage his anxiety, he decided to try to just ignore his growing to-do list of schoolwork, and zone out. However, when Ms. Flores invites the school librarian, Mr. Jacoby, into the classroom, to help with the research aspect of the assignment, Tou begrudgingly began sifting through the digital resources shared with their class.

During the research process, Tou's opinion of the assignment started to change. While still not ready to share his own diagnosis, he realized that there were probably more learners like him dealing with similar concerns. With assistance from both Ms. Flores and Mr. Jacoby, Tou

began to feel confident that he could create a product that, when shared with his classmates, could potentially have a positive impact.

Prior to creation of the final product, learners must share an outline/script of the expected flow of their PSA with a classmate and offer each other constructive feedback. One requirement of the feedback is for learners to ask questions that might help their classmate think about their topic from a different angle. While in conference with a fellow learner and friend, Tou notices that his classmate's outline on the topic of depression is sparse and lacks detail. Even though the learners have been practicing asking good questions when visiting the school library for lessons with Mr. Jacoby, Tou is realizing that by zoning out in past lessons he missed some crucial material that could help him communicate. Tou is becoming anxious because he doesn't want his friend to know why he is so interested in this project, but he also wants to encourage his classmate to think deeper on the topic. How can Mr. Jacoby support Tou with engaging in the feedback loop in a way that empowers these two learners to create a constructive space that will help them further develop their work?

Questions for Further Discussion:

- What steps might the school librarian take to ensure that the learners both understand the importance of the feedback loop and are comfortable enough to engage authentically?
- How can learners be encouraged to be reflective on their research process and act on different types of feedback to improve their work?
- What are some considerations the school librarian might want the learners to reflect on as they consider presenting their PSAs to an audience beyond the classroom?

Activity #1: Inquiry Geometry

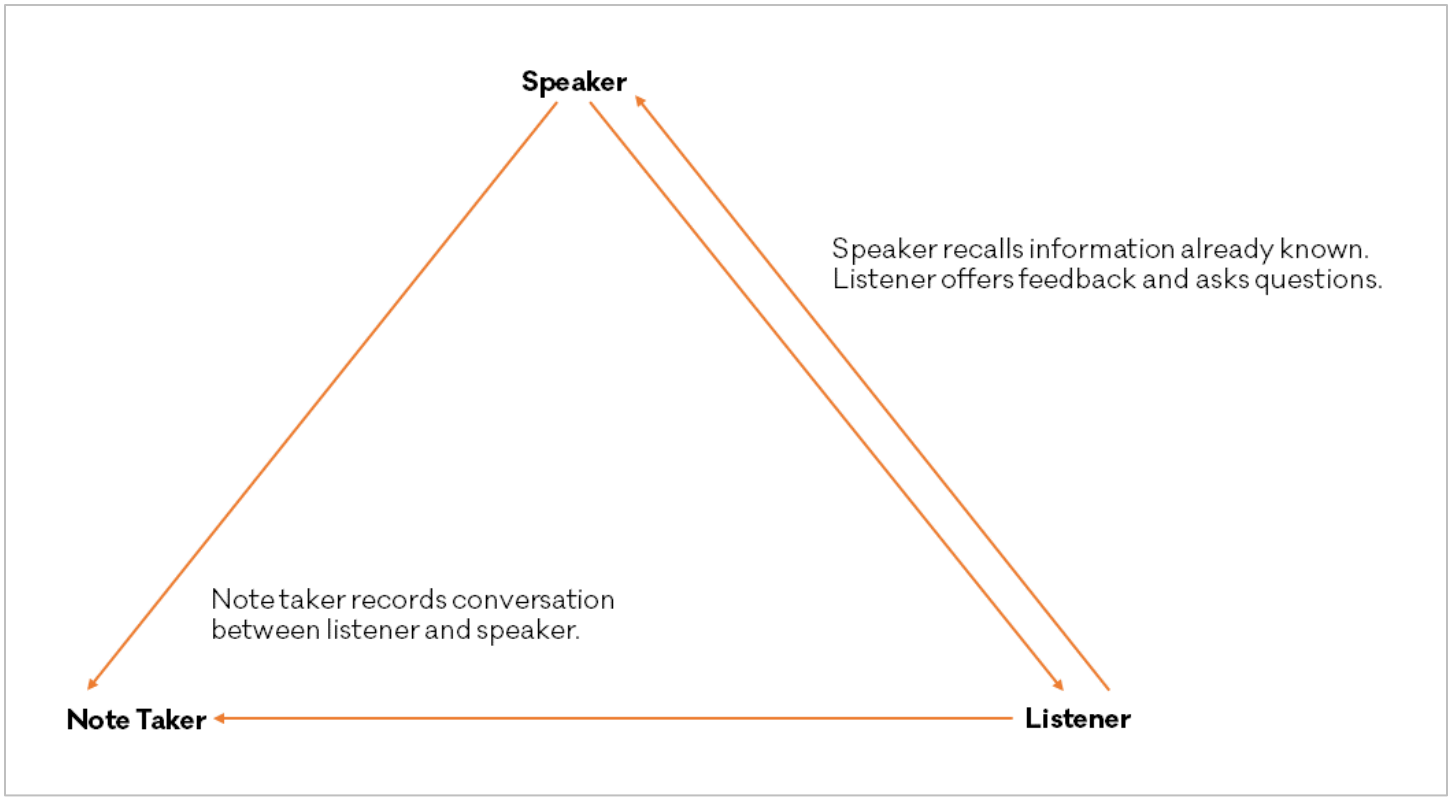
Objective: Learners engage with peers in an environment that empowers learners in the feedback process.

It is not unusual to encounter learners at any grade level who are reluctant to engage in whole class discussions, but this can be particularly true with high school learners. Even on a peer-to-peer basis, learners who have not received instruction on how to provide academic feedback to their classmates may be at a loss, especially when they lack experience participating in formal peer evaluation opportunities. School librarians can help learners practice these skills by embedding informal peer-to-peer feedback as a tool for learning within school libraries and classroom instruction. The following activity supports and models productive peer feedback with small groups and in collaboration with the classroom educator.

A listening triangle (figure 3) is a collaborative activity that promotes the sharing of ideas, constructive feedback through questioning, and active listening. Arrange learners in groups

of three, with each learner taking on a distinctive role within the group: the speaker, the questioner, and the note taker. The role of the *speaker* is to verbally engage in the beginning steps of the inquiry process by recalling any information they already know about the topic of discussion and identifying gaps in their knowledge by noting what else they would like to know. To assist in this process, it is up to the *questioner* to offer feedback to the speaker's thought processes by asking pointed questions to gain a greater understanding of the speaker's research direction and to help uncover potential gaps or blind spots the speaker might be unwittingly heading towards. Lastly, the *note taker* is responsible for recording this interaction between the speaker and questioner. Both the roles of questioner and note taker require learners to practice active listening skills, a key component in the feedback process.

Figure 3. Listening Triangle



Source: Brandi Veal, Del Campo High School, CA

Once groups of three are established and roles are assigned, the activity can begin. Provide each group of three with at least three initial prompts or allow learners to select their own topics in advance of the activity. The school librarian and classroom educator might consider repeating this strategy at key points throughout a given project. Roles can rotate in circular order within the listening triangle allowing learners the opportunity to reflect on and practice both giving and applying different types of feedback.

Extension: Consider including an exit ticket, or a think-pair-share activity, to give time for learner reflection on the positives of the activity, along with a discussion around

opportunities for growth. A whole class share-out could produce useful strategies for a more fruitful discussion next time, helping groups who may not have been as successful.

Activity #2: Creating for an Authentic Audience

Objective: Learners create and share learning products with an authentic audience.

Research has shown that learner engagement increases when classroom activities offer real world connections. And in a post-pandemic lockdown era, where learner attention rates are seen to be at an all-time low, it behooves us to encourage learners to create learning products for audiences that reach beyond the classroom educator. Creating for a more authentic audience gives learners a chance to:

- practice delivering content for different purposes,
- consider how audiences might influence product creation,
- get feedback from individuals outside of a classroom, and
- see their role as an individual that is a part of a larger community.

Asking learners to create public service announcements (PSAs) on a topic of personal interest can be an effective research project for learners to make real-world connections. PSAs also offer multiple avenues for creative expression of learners' ideas for audiences within the school and beyond. To ensure that learners are aware of the considerations required for the creation of a product using visual and/or audio content, this activity recommends two mini-lessons on copyright and on sharing information through social media.

Lesson One: Copyright

Copyright & Creativity, a 2021 AASL Best Digital Tool, offers both hands-on professional learning for educators needing a refresher on teaching copyright and ready to use lesson plans directed at different grade bands. When expanding the learners' potential audience outside of the classroom, it is critical to ensure that they are using information in a digitally responsible manner.

Example Lessons:

- Elementary: Sharing Fairly is an elementary lesson that serves as a first conversation with learners, introducing them to the concepts of fair use and copyright.
- Middle School: Sharing Content — How Much is OK? This lesson focuses on identifying the line between what can legally be shared versus what might violate copyright.
- High School: Using Copyrighted Works in Our Own Creations — Fair Use, Creative Commons, Permissions, and Public Domain is directed at high school learners and focuses on using the works of others in one's own creations.

- Find multiple resources for professional development on copyright for educators.

Lesson Two: Social Media Sharing

Once an understanding of copyright has been established, it is now a prime opportunity to reinforce the importance of fact checking and being thorough when evaluating sources. While these PSA's have the potential to provide a great deal of information to the school, local community and beyond, inaccurate information can create potentially dangerous situations.

KQED Teach is a northern California company based in San Francisco, that provides professional development for educators in media literacy. One strategy that KQED uses to get educators thinking about when to and when not to share information, is through a game they call Share or Beware. This activity can be easily adapted to use with learners to practice identifying valid information and information that is harmful to share more broadly. In this activity, learners are shown a viral meme, and using the techniques of lateral reading, they must conclude whether the information contained in the meme is factual (therefore making it okay to share on social media) or inaccurate (therefore concluding that we should beware of sharing the meme and spreading misinformation).

Together, these two lessons can help learners reflect on the different considerations necessary when thinking about creating and sharing information to different audiences.

Activity #3: Constructive Criticism and the Feedback Loop

Objective: Learners reflect on the feedback loop and engage in applying constructive criticism effectively.

Whether the project feedback learners receive comes from a peer, a classroom educator, or a school librarian, if we do not first discuss the purpose behind providing constructive feedback to others and how feedback can help learners become better creators of information, we will struggle to get true learner buy-in into the process.

Exchanging feedback is most effective between learners when first the expectations for an assignment are made clear. Establishing clear expectations and connecting them with grading parameters (i.e., a rubric), allows learners to create and respond to feedback that aligns with specific learning outcomes. Therefore, criticism given by learners is more likely to be constructive because the learners will have concrete areas to assess, and their peers will be able to more easily apply the feedback received to make improvements.

This three-part activity calls for the school librarian and classroom educator to work together to establish clear expectations, model for learners how to provide constructive feedback, and discuss how feedback may be applied to improve their work. Observations

and reflections from this activity can also allow the educators to adjust their lesson at the point of need.

Part One: Establishing Expectations
In advance of the lesson, discuss the expectations of the assignment with the classroom educator and together develop a rubric that learners can use to guide both the development of their work and the feedback they provide peers. Introduce the rubric to the class and discuss the expectations outlined.

Part Two: Modeling Constructive Criticism
Next, as a class, use the rubric to evaluate either a student example from another class (with names redacted) or an educator-created example. The process should be modeled, with learner participation, addressing how constructive feedback should directly correlate with assignment expectations. Learners may then move forward with the assignment as outlined. Depending on how much time is defined for development, the peer feedback activity may actually take place during a future class period.

Part Three: Reflection and Application
After engaging in the exchange of feedback with classmates, this activity can wrap-up with learners writing a reflection noting how they felt throughout the process and developing a feedback action plan to track their next steps. This reflection piece will help ensure learners make the right connections between expectations and noted feedback. Feedback action steps should be completed in collaboration with the learner's peer reviewer to allow for continued discussion and understanding. Peer review sessions can also benefit from asking the reviewer to reflect on how the feedback they offered their peer should help to support the intended learner on meeting the assignment requirements. This ensures constant reflection by both learners in the pair on the process of giving feedback, receiving feedback, and applying feedback.

Grow

The scenarios and activities in this section are built on the Inquire Shared Foundation using the Grow Domain for learners and the following Competencies.

D. Grow: Learners participate in an ongoing inquiry-based process by:

1. Continually seeking knowledge.
2. Engaging in sustained inquiry.
3. Enacting new understanding through real-world connections.
4. Using reflection to guide informed decisions.

Scenario: Thought-provoking Displays to Engage Learners

A group of high school learners who visit the school library regularly before school notice a Banned Books Week display on banned & challenged books. They are surprised and a bit confused by the variety of books included.

The learners see that a few titles they were required to read in ninth grade are included, like *To Kill a Mockingbird* and *Of Mice & Men*. A learner named Abdul asks the school librarian, "Does that mean our teachers could get sued for still teaching these books?"

They see some recently popular titles as well, like *The Hate U Give* and *The 57 Bus: A True Story of Two Teenagers and the Crime That Changed Their Lives*. Another learner, Sasha, picks up one book asking, "Is it illegal for the school to have these books if they're banned? I really like *The Hate U Give*."

"Wait, who gets to decide what's banned?" asks a third learner, Carl. "Can we ban my AP Bio book, so I don't have to take the class?"

Questions for Further Discussion:

- The Banned Books Week display clearly caught learners' attention. What facts and information should be included in the display to answer some of the learners' questions?
- How could the school librarian encourage learners to dig deeper on this topic and learn more about their first amendment rights?
- How might learner knowledge on this topic impact the future of book banning and challenges in their school community?
- What other thought-provoking displays could school librarians create to engage learners in their own inquiry and decision making?

Activity #1: Encourage Questioning with Interactive "Wonder" Displays

Objective: Learners ask questions and express curiosity about the real world and current events.

An informative school library display can help learners gain new understanding about the world around them; however, curiosity will truly flourish when learners are encouraged to voice their own questions.

Create a "What do you wonder?" wall or add interactive elements in informative displays encouraging learners to write their own questions related to the topic featured.

- In an elementary setting, a "What do you wonder?" wall could focus on historical events, scientific topics, cultures of the world, or many other subjects. Working with groups of learners, share some background information on the topic featured on the wall, then ask learners to begin asking questions. In upper elementary settings, model different question types to encourage learners to explore Bloom's taxonomy.
- In a middle or high school setting, display a fact or headline from trending news on the "wonder wall" and encourage learners to write questions they have about that fact/event. Find current events to highlight weekly from sources like CNN10 and AllSides Balanced News.
- *Now That's a Good Question: How to Promote Cognitive Rigor Through Classroom Questioning* by Erik M. Francis can be referenced to teach different types of questions by providing one example and labeling each type: factual, analytical, reflective, hypothetical, argumentative, affective, personal, universal, overarching, topical, and driving (Francis 2016).
- If learners struggle with a sense of curiosity, try a read-aloud from A Children's Library of Question Books from *A More Beautiful Question*.

Interactive elements can be added to informative displays by including a blank poster board or sticky notes for learners to write their questions and/or reflection. For a Banned Books Week display, include local or national headlines. This type of activity presents endless opportunities.

Activity #2: Book Clubs Focused on Real-World Problems

Objective: Learners reflect on how their lives compare to the lives of fictional characters and draw conclusions on humanity and how to treat others.

From bullying to families separating, from global pandemics to political unrest, life can be challenging for learners, and literature provides opportunities to discuss difficult topics through the lens of someone else's experience. When fictional experiences are unlike those of the reader, empathy is gained. Whereas when the experience is like those of the reader, solidarity and empowerment are cultivated, and readers are given a safe space to reflect on or discuss those experiences through the characters.

Create opportunities for learners to reflect on real-world connections through book clubs and discussions that focus on societal challenges. For high schools, the ALA Great Stories Book Club provides titles and resources in themes "selected by librarians and humanities scholars to resonate with reluctant readers and young people facing difficult life challenges." For middle and elementary settings, select books from WNDB or Diverse Bookfinder.

In discussions, don't shy away from questions that require learners to reflect on their own struggles. Consider involving other staff like counselors, school social workers, or other

experts if you don't feel equipped to lead challenging conversations on your own. Lead discussions toward problem solving so learners can make informed decisions on how their own actions can create change and how society as a whole can move toward positive change.

Optional discussion questions

- What are some of the biggest challenges faced by the main character(s)?
    - What qualities of this character's identity and personal life make these challenges harder or easier to solve?
- How does the environment (or setting) of the book impact events?
- Which of these challenges do you know exist today in the U.S.? (Reflect beyond your own community.)
- How could the characters have improved their situations? Would it require their own action, would they need help from others, or would an aspect of their community or environment need to be completely different?
- Have you ever faced challenges like those in the book?
    - Reflect on your own actions and reactions. Did your response help to improve the situation? What could have helped you?
- What can we learn from these characters and events to improve our lives and interactions with others?

Activity #3: Google-Buster Question Challenge

Objective: Learners continuously ask questions and conduct research to find answers.

This generation of learners is constantly told that they have "the world at their fingertips" with access to the world wide web; however, experience teaches us that not all questions can be answered by Google. Encourage curiosity, research, and answer-finding among learners with a Google-Buster Question Challenge.

Create a space in the school library (or in the hallway outside the library) where learners can see the Google-Buster Question. Near this space, consider providing information on research tips such as valuable sources in your collection, database search tips, etc. Post each question with a specific deadline to submit answers. Answers could be submitted via answer ballots or collected electronically with a QR code. Collect answers from individuals or small groups of learners before sharing the answer. Consider offering small prizes or a "leaderboard" by grade for those who find the correct answers. The length of time to answer each question could vary depending on the complexity of the questions or popularity of the challenge.

Pose questions from information found on school library databases or get different grade-level or subject-area educator teams involved with writing the questions. Turn question generation into a competition among educators: Which educator team can write a question that stumps the most learners?

Example Questions

1. What is the total number of airports with unpaved runways in the United States?
   Answer: According to the CIA World Factbook, the United States has 8,459 unpaved runways (CIA 2023).
   Note: This provides an example of a question and answer that can be found on government sites.

2. How are Frankensteins good for health?
   Answer: According to *The Autism Fitness Handbook : An Exercise Program to Boost Body Image, Motor Skills, Posture and Confidence in Children and Teens with Autism Spectrum Disorder*, a Frankenstein is an exercise move in which an individual stands tall and walks forward, "and in doing so touch[es] their right hand to left toe and then left hand to right toe" which "improve[s] dynamic flexibility while crossing the midline of the body" (Geslak 2015).
   Note: This provides an example of content specific to subject areas.

3. What is the name of Principal Waekerle's cat?
   Note: A question like this could be used to encourage learners to use interview research skills.

School Librarians

The difference between "teaching research" and guiding learners through a true inquiry model can sometimes be unclear for classroom and content-area educators. School librarians must lead by example, modeling and implementing an inquiry-based process within schools. A consistent approach utilized by all educators across all grade-levels will most effectively reinforce these skills within learners. School librarians must work closely with fellow educators to encourage authentic inquiry-driven learning and be prepared to teach alongside other educators to stimulate creativity and increase the complexity of skills learners are capable of. The following scenarios and corresponding activities outline ways school librarians can assist learners to display initiative in their learning, probe possible answers to questions, and fill knowledge gaps, as well as ways school librarians can model and assess inquiry and foster reflection.

Think

The scenarios and activities in this section are built on the Inquire Shared Foundation using the Think Domain for school librarians and the following Competencies.

A. Think: School librarians teach learners to display curiosity and initiative when seeking information by:

1. Encouraging learners to formulate questions about a personal interest or a curricular topic.
2. Activating learners' prior and background knowledge as context for constructing new meaning.

Scenario: Encouraging Questions to Guide Research

Rosa, a sixth grader, is charged by her classroom educator to do a passion project. Rosa loves sea turtles but knows that there are several different species of sea turtles that are endangered and wants to do her project on helping turtles who have damaged shells due to getting hit by the propeller.

Rosa rushes to the school library to find her school librarian, Dr. Goldstein, and proceeds to explain her research idea. Dr. Goldstein always knows where to go to find quality information. Rosa knows the school library has a lot of great books about turtles, because she has already checked out several of them. This time, though, Dr. Goldstein doesn't start walking to the nonfiction section or the computers. She just sits down at a table and asks Rosa to join her.

"This sounds like a topic that you are very invested in. I want you to pause for a moment though, because research involves gathering information and asking questions before developing your thesis."

"What do you mean?" asks Rosa, "I already know what I am researching."

Questions for Further Discussion:

- How can the school librarian help Rosa reflect on her previous research to inform her current research?
- In what ways can the school librarian use learner-generated questions to guide curiosity?
- What effect does teaching learners how to ask questions have on the inquiry process?

Activity #1: Using the Question Formulation Technique

Objective: Engage learners in asking a variety of questions to guide the inquiry process.

An integral part of the inquiry process is developing quality questions that further research and understanding. Because questions guide research, high quality questions lead to high quality research and deeper understanding. Learners need to be taught the life-long skill of how to develop strong questions.

"Developed by the Right Question Institute, the Question Formulation Technique, or QFT, is a structured method for generating and improving questions. It distills sophisticated forms of divergent, convergent, and metacognitive thinking into a deceptively simple, accessible, and reproducible technique." (Right Question Institute).

Collaborate with classroom educators using this technique to encourage learners to ask deeper questions related to their assignment or chosen topic.

The structure of the QFT asks learners to:

1. Present the Question Focus: Topic for which learners will be asking questions.
2. Ask Your Questions: Record all questions as stated without judgment or discussion, numbering them as you go.
3. Improve Your Questions: Label each question as an open or closed question. Take time to change an open question to a closed question, and vice versa.
4. Strategize: Pick your top questions (open to discussion) and share your results with others.

School librarians can use the QFT to teach learners at all grade levels how to ask and analyze questions based on a variety of topics. The resources available at www.rightquestion.org can help educators learn more, inspire ideas, and plan lessons using the Question Formulation Technique.

Activity #2: Inquiry Journals

Objective: Engage learners in recalling known information and question development.

The process of reflecting on existing knowledge of a topic and using that information to inform one's research direction is an early stage of the research process. However, it is also a functional strategy to use in the classroom when introducing a new unit of study. Asking learners to continually revisit their own stocks of knowledge while engaging in the questioning process can be a move of empowerment. Specifically, it allows learners to be a part of directing what areas of the curriculum might require more of their focus than others when exploring curricular interests.

This activity promotes learners accessing prior knowledge and developing questions as a consistent part of classroom instruction using inquiry journals. Inquiry journals root the inquiry process more firmly in the everyday teaching and learning process. It calls upon the learner to ask questions to help direct their learning on a topic. Further, it encourages metacognitive thought about the inquiry process, allowing learners to track their processes and levels of understanding.

Working in collaboration with the classroom educator, introduce the class to the concept of inquiry journals, as well as the benefits and expectations of daily classroom use. Learners will also be tasked with bringing their inquiry journals to school library visits for further feedback and conferencing with the school librarian. The role of metacognition throughout the research process, rather than just at the beginning and end, should be emphasized with learners to help them see themselves as active participants in their own learning process. When looked at through this lens, it pushes learners to view the inquiry process through a growth mindset perspective and recognize the evolution of their own thought processes and understandings.

The Library of Congress offers free teaching materials to educators that include resources and graphic organizers to encourage the use of documents like inquiry journals in the classroom. For example, the Primary Source Analysis Tool is a graphic organizer that asks learners to:

1. observe a primary source document and write down what they see,
2. reflect on the source as a piece of media,
3. question how it might have fit in its historical time period, and

4. pose questions that might lead to further observations or require more research to answer.

The format of this graphic organizer can easily be adapted as a routine inquiry journal activity and applied to analyzing other types of media. When introducing a new topic of study, classroom educators can use the inquiry journal for class warm-up activities, and the school librarian can incorporate the journal through their own library specific exercises, as well.

Activity #3: Challenging the Text

Objective: Engage learners in the act of asking critical questions.

By changing the way we approach teaching learners strategies for close reading, we can influence how learners interact with academic texts and impact their thought processes for when they encounter various forms of media inside or outside the classroom. This activity uses the teaching strategy of challenging a text. While many examples of Challenge the Text can be found by doing a quick Google search, Learning for Justice has curated a number of resources to support educators looking to integrate lessons using this strategy into the curriculum.

Collaborate with the classroom educator to select the primary source text under examination, and then lead learners through reading the text and asking a series of questions through scaffolded approaches to different age groups.

1. Ask learners to work independently or in pairs using close reading skills to read through the text, gather meaning, and ensure they fully grasp its main points.
2. Next, discuss the reading as a whole class to check for understanding prior to moving on to the questioning phases. At this point, the goal for learners after their initial reading is to begin reflecting on gaps in the information.
3. Model asking critical questions about the text and model critical thinking techniques to provide guidance for learners, ensure higher quality questions, and encourage greater learner contribution. When this practice becomes more routine for learners, the questioning can be incorporated into different parts of the close reading process (i.e., question brainstorming prior to reading to see if expectations match the reality, what that might mean in terms of gaps, etc.).

For elementary learners, provide educator-generated Challenge the Text questions for reference during a class read aloud or independently.

As a learning extension of this activity, ask learners to consider how different personal lenses or experiences might impact the close reading of certain texts by others.

Create

The scenarios and activities in this section are built on the Inquire Shared Foundation using the Create Domain for school librarians and the following Competencies.

B. Create: School librarians promote new knowledge generation by:

1. Ensuring that learners probe possible answers to questions.
2. Devising and implementing a plan to fill knowledge gaps.
3. Facilitating the development of products that illustrate learning.

Scenario: Taking Learners Beyond Google with Inquiry

Mr. Theiss is a high school librarian in a rural community. He knows the learners he teaches have a variety of plans after graduation. Some will go to college, some will attend trade schools, and some will work for family businesses. After collaborating for some time with content-area educators on various research-related assignments, Mr. Theiss begins to notice that learners often go to Google first to find the information they need, and many learners do not look elsewhere even when they aren't finding answers. Learners struggle to know what to search for and don't know how to change their searches when they don't see what they want in the first few results. Because of this, the educators that Mr. Theiss has worked with feel that the final products learners are submitting are falling short of their expectations.

Mr. Theiss is aware from speaking to university librarians that one of the most common errors college freshmen make is not expanding their research process beyond Google searches, so he knows he wants to teach better inquiry skills. He also believes that learners who don't plan to attend college will benefit from improved research skills and will find several of the resources he intends to share to be useful to them after high school as well.

When Mr. Theiss shares his observations with the other educators, a couple of them mention that they don't have endless amounts of time to spend on the research process. Mr. Theiss respects the educators' time, but he also knows that if learners were familiar with more reliable sources, they could better probe for possible answers, fill knowledge gaps, and demonstrate their learning.

Questions for Further Discussion:

- What inquiry and research skills should the school librarian emphasize in the lessons he already teaches to help learners answer their own questions more quickly and accurately?

- What could the school librarian encourage either educators or learners to include in their inquiry process to fill knowledge gaps?
- How could the school librarian delicately begin the conversation with other educators about the importance of researching beyond Google?
- What activities or strategies might save learners time in their process of finding answers and creating products that display their learning?

Activity #1: Research 4-To-Score

Objective: Provide access points for learners to explore questions using a variety of sources.

Learners may turn to Google first when working through the inquiry process because it's what they're most familiar with. However, school librarians can expose learners to databases and other trusted sources by creating a hyperlinked resources slide or page. Gamifying the tool by calling it "Bingo" or "Research 4-to-Score" could engage a reluctant learner. A "Bingo" board is appropriate when 25 different sources can be consulted, whereas a "Research 4-to-Score" board (figure 4) would only require 16 different sources.

Figure 4. Research 4-to-Score Worksheet

Source: Created by Brittany Sharitz for Marquette High School, MO

The format and resources can be customized to meet the varied needs of learners and inquiry projects. Consult the Resource Matrix in Appendix A for resource ideas.

Additionally, Symbaloo is a free tool that allows users to create pathways to resources for learners to explore. Users can organize clickable tiles into categories of topics, select from suggested educational resources, and add their own.

Activity #2: Inquiry Conferences

Objective: Meet with learners during the inquiry process to assist with problem solving.

The inquiry process can be a challenge, and learners sometimes have blind spots. They may not realize when a research question is too broad or narrow. They may neglect to explore a variety of sources. They often struggle to find the answers they are looking for. Instead of allowing these challenges to frustrate a learner, create opportunities to help them navigate this process by offering individual conferences.

Consider making plans with the classroom educator to build into their inquiry process, after learners have had time to find answers but before they have started turning their findings into a product. Encourage learners to prepare for their conference by having their research notes ready and questions written to ask the school librarian. Questions may include:

- finding different types of sources (example: learner has found mostly websites or books)
- filling gaps in research
- finding a wider variety of information
- finding more recent sources

Secondary ELA educator Lauren Williams of Marquette High School, Missouri, created a Conference with a Librarian Sheet (shared with permission) for her Advanced Language Arts Research & Presentation (ALARP) learners to use at the halfway point of the search unit. Learners spend several weeks collecting facts from a variety of sources. The timing of the conference allows a school librarian to see which resources have been consulted, evaluate the quality of research, and direct learners to new sources and ideas that may have been overlooked.

Activity #3: Learner-Made Research Infographics

Objective: Collaborate with content-area educators to develop infographic-style assessments for learners to showcase their learning.

Content-area and classroom educators will know exactly which learning standards need to be mastered for assessments; however, they may not always have the know-how to teach learners how to create a product like an infographic. Approach other educators early to offer to work alongside them throughout the unit and offer mini lessons to the learners on aspects that may involve technology or graphic design elements.

For younger learners, the concept of "5 Things to Know about _____" may be most approachable as an introduction to visual organization. Collaborate with the classroom educator to require visual content along with the facts that learners have researched to learn about the topic. Teach a mini lesson on organizing information visually with the use of a title, white space, subheadings, and/or numbers. Todd Finley's "Common Core in Action: 10 Visual Literacy Strategies" provides videos, graphic organizers, and other step-by-step instructions for teaching this to learners (Finley 2014).

Instruct learners on how to create a one-page visual organization of their research by collaging or using one of the following digital tools:

- Google Drawing: This software included in the Google Docs Editor suite allows users to create images by inserting shapes, lines, and text.
- Google or Microsoft slides: Learners can easily paste in images and add text to a single slide.
- Thinglink: This website allows users to create an image with icons or "tags" that allow viewers to interact with the image by linking them to additional content.
- Canva: This website allows users to create their own infographics and visuals from hundreds of pre-made templates. Users can easily personalize content by adding text and changing images and colors.

Teach mini-lessons on how to navigate and create products through these sites. Do not assume learners already know how to use new websites or that a site is intuitive enough for learners to navigate on their own. If the assessment is to be drawn by hand, consider including lessons on Sketchnoting (which can be found from a variety of sources online):

- The Noun Project's article "An Introduction to Sketchnoting with Jen Giffen" explains the benefits of sketchnoting and includes lots of beautiful sketchnotes to illustrate key concepts (Elliott and Stuart 2022).
- Matt Miller's "Sketchnoting in the Classroom: 12 Ways to Get Started" provides links to a variety of resources and lessons for learners at all levels (Miller 2019).
- Silvia Duckworth's #SketchnoteFever has 34 different lessons that learners can follow along with to learn to draw simple icons and slides of the completed images (Duckworth, n.d.).

Share

The scenarios and activities in this section are built on the Inquire Shared Foundation using the Share Domain for school librarians and the following Competencies.

C. Share: School librarians guide learners to maintain focus throughout the inquiry process by:

1. Assisting in assessing the inquiry-based research process.
2. Providing opportunities for learners to share learning products and reflect on the learning process with others.

Scenario: Exploring Inquiry-Based Learning to Support Shared Learning Experiences

Ms. Sanchez has been slowly learning the ins and outs of her new school community, Octavia Butler Middle School. Her previous school employment was at an elementary school, so it is quite a change for her. She particularly wants to expand her experience with supporting inquiry-based learning, which is the most valued and practiced teaching method at Octavia Butler Middle School. Recently she was approached by the seventh-grade English educator Mr. Benavides for support in teaching learners about genres so they can select a book for a book review assignment. He would also like to encourage more excitement around reading but isn't sure how to do that.

Questions for Further Discussion:

- How can the school librarian support the English class and incorporate an inquiry-based learning process into the lesson?
- Can this genre exploration incorporate group activities which are engaging for learners?
- What might a learning product look like for this assignment allowing learners to share their learning?

Activity #1: In-Class Genre Exploration, Through an Inquiry-Based Process

Objective: Design an inquiry-based learning lesson for classifying fiction genres.

Education research reveals that inquiry-based learning is more engaging than traditional methods of teaching and learning (Buchanan, et al, 2016). The following readings can

provide assistance if you haven't yet experienced creating lessons using an inquiry-based process:

- Inquiry Based Learning: The Definitive Guide: This article on the Education Corner website explores the differences between traditional learning and inquiry-based lessons, as well as the four steps in the inquiry process.
- Inquiry-Based Learning: From Teacher-Guided to Student-Driven: This article on the Edutopia website discusses how to build learner engagement and learning in science lessons using the inquiry process.
- What the Heck is Inquiry-Based Learning?: Another Edutopia article describes what is at the core of inquiry-based learning.
- Inquiry-Based Learning Questions for Research and General Inquiry: An article by TeachThought staff offers an inquiry framework and gives examples of types of inquiry-based learning questions.

This activity allows school librarians to utilize the school library to explore genres through an inquiry-based lesson. The librarian divides learners in the class into five groups with one group at each table in the school library. In preparation, the school librarian has placed five books at each table with slips of colored paper identifying the names of various genres, such as Mystery, Adventure, and Science Fiction. On the back side of each genre paper place a short description or definition of the genre. Additionally, include a blank slip of paper at each table for learners to create a new genre. Have volunteers take turns reading genre definitions aloud to the class before beginning the activity. Then, instruct learner groups to look at the books on their table and as a group determine which of the books fits with each genre provided. If the group comes across a book which doesn't quite fit within any of the genres available, the group can create their own genre using the blank paper. After the groups have had some time to make their genre connections, each group of learners then reports back to the class on the titles of their books and the genre with which each title fits, or the new genre that was created by the group and why. Learners should describe to the class what characteristics of the book indicate its fit with the chosen genre.

Activity #2: Self-Guided Genre Exploration

Objective: Allow learners to explore different genres, which may be a new source of reading engagement.

Create "stations" in the school library, each displaying a poster defining a genre with examples of books from that genre. Learners visiting the school library complete a scavenger hunt for prizes. The scavenger hunt asks questions such as, "Which genre is most likely to have wizards?" or "Which genre has real-life events or people?" Learners move from station to station to answer the questions. The final question on the scavenger hunt should be, "Which is your favorite genre?" Once learners have completed the scavenger hunt, take

a picture of each learner with books from their favorite genre to post around the school library or on social media.

Activity #3: Sharing Learner-Written Book Reviews via the School Library's Online Catalog

Objective: Learners publish their book reviews to share with the entire school.

Collaborate with English and classroom educators to teach learners to access the school library's online catalog. In particular, show learners how to submit a book review on the catalog, which once approved by the school librarian, will be seen by the entire school. Guide your educator partners to have learners include a description of the story, and why they liked or disliked the book. This activity can be used with learners from third grade through high school, by varying the level of length and writing competency as appropriate. Classroom and content-area educators can use this as an in-class activity. Here are a few resources to help support this activity:

- Book Review Writing by Mensa for Kids
- High school lesson on writing a book review from Read Write Think
- The difference between a book review and a book report from Literacy Ideas

Grow

The scenarios and activities in this section are built on the Inquire Shared Foundation using the Grow Domain for school librarians and the following Competencies.

D. Grow: School librarians implement and model an inquiry-based process by:

1. Leading learners and staff through the research process.
2. Constructing tasks focused on learners' individual areas of interest.
3. Enabling learners to seek knowledge, create new knowledge, and make real-world connections for lifelong learning.

Scenario: The Stale Research Project vs. Authentic Inquiry

Mr. Duncan is a Pre-K to eighth-grade school librarian at a private school. In his second year of work, he realizes how similar the science projects are for several of the grade levels. For example, Mr. Duncan knows learners research animals a number of times between grades one and five. Because of this, he feels that the learners lack enthusiasm each time it is repeated, which also decreases their interest in the inquiry process.

Mr. Duncan asks a few educators if they are aware of the overlap in assignments, and some of the educators provide the following reasons for continuing to keep the projects focused on animals:

1. The research process is difficult for young learners, so the educators want to reward the learners with the choice of what to research, and most learners are excited to research animals instead of other science topics.
2. The school library has great animal books, and the educators don't know what other resources learners could use to quickly find information for an inquiry-based project.
3. The educators don't have a lot of time to spend on research, so it's helpful when learners already have background knowledge on a topic.

Questions for Further Discussion:

- What are some of the challenges these educators are facing with teaching inquiry? How does it impact learners when they are not led through an authentic research process?
- How could the school librarian assist other educators in better understanding an inquiry model? How could he take some of this load off of these educators and help with their concerns about "not having time"?
- What are other science-related inquiry-based projects that the school librarian and these educators could collaborate on and still allow learners' to focus on their individual areas of interest? What resources might the school librarian consult for ideas?

Activity #1: Connecting with Experts

Objective: Enable learners to make real-world connections.

School librarians may not have all the answers, but they work to curate resources for learners and educators to help them find the answers to the questions being asked. When researching a topic, one way to gather information is to ask an expert. There are a variety of ways that learners can connect with experts in the field.

- Skype a Scientist connects classrooms to a scientist in a specific field for a Skype session where learners can ask questions to gather information.
- Author visits allow learners to engage with writers and illustrators to learn about the writing process and ask questions about an author's purpose and research. Authors and illustrators often include links and contact information on their websites, or school librarians can reach out to publishing companies, local libraries, or bookstores for information regarding visiting authors.
- Smithsonian American Art Museum has a variety of programs available for educators and learners to connect with museum presenters regarding many topics.
- Joy of Museums lists virtual tours for the top 100 museums in the United States.

- Social Media is a great way to connect with experts in a variety of fields, whether you reach out to a specific expert or use your virtual community to create connections with experts.
- Local experts can be extremely helpful. By reaching out to local community members regarding specific topics, connections can be made with experts in a variety of fields.

When interacting with experts it is important for learners to be prepared with questions, scenarios, and strong background knowledge. With support from the school librarian, learners can brainstorm these questions and ideas so they can respectfully engage with the experts and use their time efficiently.

Activity #2: Co-Teaching and Modeling

Objective: Use co-teaching models to lead learners and educators through the research process.

While classroom or subject-area educators see an in-depth view of the scope and sequence of their grade level or subject area, school librarians often see a broader view of learner experiences throughout multiple years. Classroom educators may not have the perspective to realize that learners repeat similar projects year to year and may not have the experience of taking learners through the inquiry process. Through co-teaching, the school librarian can collaborate with the classroom educator to plan, curate resources, and lead learners through the inquiry process.

Consider the six co-teaching models below, which are explored with pros and cons in this Edutopia article by Sean Cassel (2019). A single model can be used throughout a lesson or unit, or several models can be used depending on the needs of the individual lessons within the unit to best support the educator and the learners through the inquiry process.

1. **One Teaching, One Observing**: One educator is directly instructing learners while the other observes learners for evidence of learning.
2. **One Teaching, One Assisting**: One educator is directly instructing learners while the other assists individual learners as needed.
3. **Parallel Teaching**: The class is divided into two groups and each educator teaches the same information at the same time.
4. **Station Teaching**: Each educator teaches a specific part of the content to different groups as they rotate between educators.
5. **Alternative Teaching**: One educator teaches the bulk of the learners, and the other teaches a small group based on need.
6. **Team Teaching**: Both educators are directly instructing learners at the same time—sometimes called "tag team teaching."

By partnering with the educators, you can model and guide them through the research process, ask questions of educators and learners along the way, and support educators who may not have led learners through the process before.

Activity #3: Pairing Question Words with American Sign Language

Objective: Engage the youngest learners in how to ask questions about topics of interest.

As the youngest learners in school develop their curiosity, the school librarian can help them understand how specific words lead to asking questions while different words are used when stating facts. Partnering physical movements with new information can also support learner retention. Pairing the signs from American Sign Language to the words *who*, *what*, *when*, *where*, *why*, *how*, and *which* can help learners understand that these words are often found at the beginning of a question. When learning about a topic, practice using the signs with learners to think of and ask questions related to that topic.

Begin by showing learners a picture that may spark questions, like a bee on a flower. Model asking questions like, "Why is the bee on the flower?" or "What kind of bee is this?" or "How does this bee help the flowers?" or "Where will this bee go next?" Since the goal of this activity is to only ask questions, the answers will not be provided to the learners. Take learners through a series of pictures and have them ask as many questions as they can about the picture while using the signs at the start of each question.

If an ASL interpreter is inaccessible, this video of ASL Educator Travis Merrell can be used as a resource for teaching learners correct technique.

School Libraries

The school library should be the spark plug for curiosity within the school—a place that energizes learners' sense of wonder, embeds the inquiry process, and houses the resources and tools a school needs to develop critical thinkers. School libraries should be at the heart of a building's information-searching processes, and school librarians should collaborate with other educators to develop and implement an inquiry model within grade bands of the curriculum. In this section, the scenarios and associated activities allow school librarians to foster an inquiry culture and cultivate a learning environment that allows all users to maintain focus throughout the inquiry process.

Think

The scenarios and activities in this section are built on the Inquire Shared Foundation using the Think Domain for school libraries and the following Alignments.

A. Think: The school library enables curiosity and initiative by:

1. Embedding the inquiry process within grade bands and within disciplines.
2. Using a systematic instructional-development and information-search process in working with other educators to improve integration of the process into curriculum.

Scenario: Collaborating to Support a Universal Research Model

Dr. Deondre Addams has been the elementary librarian in a suburban independent school for several years now. He frequently collaborates with other educators to support the curriculum and works to find reliable resources for learners to use during their research. This year, the school has three new classroom educators and as part of their introduction to the school, they work closely with the instructional coach to better learn the curriculum and school protocols. As the new educators begin looking at their next unit, a research unit, the instructional coach suggests they work closely with Dr. Addams.

For the last few years, Dr. Addams has collaborated with the instructional coach to mentor each of the classroom educators in the use of a common research model. Using a universal model, learners are exposed to common language that follows them through elementary school and helps them develop the skills to engage in inquiry-based research.

Dr. Addams not only guides the new educators through the universal research model before they begin the unit, he also co-teaches the unit with them to further support them and the learners.

Questions for Further Discussion:

- In what ways can the school librarian continue to support new and returning classroom educators throughout the school year?
- To what extent can the school library resources guide curriculum and professional development?
- What effect does professional development about inquiry-based learning have on educator pedagogy and curriculum implementation?

Activity #1: Bringing a Universal Inquiry Model to the School

Objective: Promote a common instructional-development and information-search process throughout the school to improve integration of the process with curriculum.

When educators use common instructional tools and common language, learners are able to make connections to prior knowledge and skills as they progress through different grade levels. Incorporating a standard research process allows educators and learners to dig deeper as they grow, rather than relearn a new process each year.

One common research process to consider for your district might be the Big 6 (older learners) or Super 3 (younger learners). "The Big6 is an information literacy process, a research process, and an inquiry process because it describes the way we complete assignments and solve problems in any situation" (Big6.org 2018). The Big6 process model works well across content areas and learning standards and asserts "that successful information problem-solving encompasses six stages with two sub-stages under each one."

Whatever process model you choose, be sure to leverage multiple avenues to promote the process and the benefits of a common process to building or district-wide educators.

- Within the building, present at a faculty meeting or meet with grade-level educators during their planning time to walk them through the process and how it directly relates to their curriculum and pedagogy.
- To expand to educators district-wide, partner with other school librarians in schools throughout the district to lead a session during a professional development work day.

To promote the common process to learners in your school community, enlist learners to design and create a variety of tools to help other learners remember and understand the process. Learners could develop posters, write jingles, create short comics, present a PSA, or create material in any other medium of their choice with the purpose of teaching others the steps of the process. The school community could vote on their favorites which could then be used as guides for future instruction.

Activity #2: Inquiry as an Interdisciplinary Opportunity

Objective: Embed the inquiry process into interdisciplinary collaborations.

When the school library is positioned as a curricular hub within the school, the school librarian holds the unique opportunity to collaborate with a variety of educators from multiple disciplines. The school librarian not only brainstorms with specific educators but can also foster cross-curricular collaborations among educators within the building. While brainstorming, the school librarian can begin by focusing on specific standards or asking the educator about their biggest concerns. Through these collaborations, content-area educators can acknowledge the common threads within their specified standards and develop ways for learners to engage with these common standards through layered perspectives and disciplines.

Example: Plants and People

This activity promotes a collaboration between the school librarian, science educator, and physical education coach. Using the grade level science standards, the physical education nutrition standards, and the AASL Standards for the Shared Foundation Inquire, develop and co-teach lessons about growing your own foods in a garden. Within this unit, learners explore the life cycles of plants, the effects the environment has on plant growth, the effect of homegrown food on your personal health, and the role of sustainability in the world around us. If your school has a greenhouse, consider extending this activity to further collaborate with the agriculture or horticulture educator in your school by growing foods. To bring the unit full circle, involve the home economics department as well and have learners cook the foods that they grow!

Example: Graphic Novels and Manga

This activity brings together a collaboration between the school librarian, the art educator, and the classroom educator exploring graphic novels and manga. In collaboration with the art educator, guide learners on an exploration of the variety of styles used to illustrate graphic novels and manga. Using technology tools or hand-drawn artwork, learners will then design a series of panels in the style of a graphic novel to tell a story that shows a beginning, middle, problem, and solution. In collaboration with the classroom educator, explore the elements of a book with learners and reading strategies used while enjoying books. Finally, have learners develop an opinion essay exploring the question, "Are Graphic Novels Real Books?"

Online Tools for Creating Graphic Novels:

- Bookcreator provides a free or paid subscription with templates for graphic novels
- Canva has a series of templates for graphic novel organization

- Comic Life 3 is a creative tool for storytelling through comics

Book Lists for Graphic Novels

- American Library Association - book lists by year and audience
- School Library Journal - 31 Days, 31 Lists: 2022 Comics and Graphic Novels for Kids
- New York Times Graphic Novels and Manga Best Sellers List April 2023
- Social Justice Books - lists that focus on multicultural and social justice themes

Activity #3: Explore the Role of AI in Schools

Objective: Approach educational changes with curiosity and take the initiative to share new knowledge with other educators.

By its nature, education is constantly evolving to include best practices and to respond to our ever-changing world. As new situations and technologies present themselves, educators can respond in a variety of ways. The school library, led by the school librarian, should be a place in which new teaching philosophies, practices, and technologies are responded to with genuine curiosity and exploration.

AI technologies like ChatGPT are now part of the fabric of education. With school libraries' focus on providing equitable and ethical access to modern technologies, school librarians must acknowledge that denying a place for AI in schools will only increase the digital divide. Some learners will be educated on appropriate uses while the learners who are only told never to use it will be denied learning opportunities to practice critical thinking, evaluation of generated content, and lessons on ethical uses of technology. If educators have not determined AI's role in the school, pioneer professional development and discussions on the following topics.

- Generative AI technologies (Note: Currently most AI sources require 18+ or parent/guardian approval):
  - Perplexity: This currently free AI chatbot quickly answers questions and prompts through a web browser or app and provides links to citations and related topics.
  - ChatGPT: This currently free AI chatbot was developed to respond to prompts by providing a detailed response.
  - Bard: This is Google's AI-powered chatbot with the ability to mimic human conversations. (Cannot be accessed with a Google Workspace account.)
  - DALL-E 2: Users can pay for an AI to create images and art based on detailed written descriptions.
  - Canva Text to Image: Canva's built-in tool generates images based on text descriptions.

    - Adobe Firefly: This paid Adobe product creates new artistic images from text.
    - Imagen: Google's photo realism text-to-image technology is currently only available to a select group.
- Resources for educators:
    - "100 Prompts for Teachers ChatGPT" : For those who are new to ChatGPT, this article suggests prompts that educators can give the AI to lessen their own workload.
    - "15 AI Tools for the Classroom" : This article provides summaries of 15 AI tools for the classroom.
    - Evaluating AI Tools for Classroom Use : This blog post provides background on educational AIs and discusses the ethics behind its use in schools.
- Ways to use AI to teach inquiry:
    - Near the beginning of the research process, ask the AI to generate search terms on a topic to be used for online and database searches.
    - Ask the AI to generate research questions and/or thesis statements to then compare to learners' examples in the drafting phase.
    - Once learners have outlined research they've collected, have the AI generate an outline on the same topic, so learners can look for holes in their own research and compare their approach to what the AI provided.
    - Provide learners with human-generated writing and AI-generated writing, and evaluate to determine who wrote each.
    - Encourage reverse research by providing learners with an AI-generated article and work to find other sources to verify credibility.
    - With all lessons, emphasize ethical uses of this technology. Encourage learners to treat these AI technologies as a tutor and ask it questions to help them solve problems and receive feedback.

Create

The scenarios and activities in this section are built on the Inquire Shared Foundation using the Create Domain for school libraries and the following Alignments.

B. Create: The school library enables generation of new knowledge by:

1. Providing experiences with and access to resources, information, ideas, and technology for all learners in the school community.
2. Supporting flexible scheduling to provide learner and educator access to staff and resources at the point of need.

Scenario: Provide Relevant PD With (or without) a Flexible Schedule

Ms. Srigiri is an elementary school librarian in an upper-middle class suburban public school. One of her administrators approaches her and states that in a recent survey, educators expressed concern about keeping up with new instructional technology and the digital resources the district offers. The district prides itself on keeping up with the latest trends in technology, which means there is always something new for educators to learn and implement. Administration wants to help; they just aren't sure how.

The administrator knows that Ms. Srigiri sees herself as tech-savvy and a mentor to others. He asks Ms. Srigiri how the school could better inform educators of the resources, information, and technology the district currently offers, and how they could provide continued support on emerging technologies.

Ms. Srigiri has ideas and is eager to help her colleagues, but her school does not currently have flexible scheduling for educators who want to bring their classes to the school library. When she mentions to the administrator that a flexible schedule would allow both learners and educators better access at the point of need, he says that the school has investigated it before, but it doesn't seem feasible.

Questions for Further Discussion:

- What role can the school library play in providing experiences with and access to resources, information, ideas, and technology for other educators? What impact would this have on learners and others in the school community?
- How can the school librarian communicate to staff about the resources, information, ideas, and technology that are already available through the school library?
- Who else could the school librarian collaborate with or what professional organizations could she consult or join to learn more about emerging technologies?
- How could the school librarian advocate for flexible scheduling? What sort of data, collaborators, and/or steps could be convincing to administrators?
- What elements of AASL's Position Statement on School Library Scheduling can the school librarian use to help reframe the conversation with school and district administrators concerning flexible scheduling?
- What are some creative, alternative ways the school librarian could offer professional development to her colleagues?

Activity #1: Flexible Professional Development Opportunities

Objective: Provide professional development and information on school library resources in a variety of formats.

No educator ever has enough time in his or her day, so whether a school community has flexible scheduling or not, providing options for how and when staff can learn more about emerging technologies and the resources provided by the school library is invaluable. Explore multiple avenues of distributing information such as a staff website, online "classroom" of resources for educators, a monthly newsletter, and information exchange events.

- Google Sites allows for simple website creation. Design a Site for staff that includes the school library's calendar, lesson ideas on reading and research, book lists, and additional ideas. Use this space to communicate your willingness to collaborate and meet the needs of learners.

- A newsletter could include upcoming school library events, feature recent instructional collaborations, as well as spotlight technology tools in the school library and/or one of AASL's Best Digital Tools for Teaching and Learning. Promote your availability to meet with other educators during their planning time to answer questions or provide further demonstration of the tools available. A newsletter could also highlight library spaces and other resources that educators may be unaware of. Many school librarians use Smore, an affordable online platform for making and distributing newsletters.

- Host regular information exchanges and/or technology demos at times that are commonly best for educators. Allow time for staff to share tech strategies with each other that they already use and collect lists from them on technology and resources they'd like to learn more about.

- If meeting during the school day is not possible, consider hosting a "Morning Cup of Tech" periodically in which you offer coffee and teach a database tool or instructional tech site in 15-minutes before the school day begins.

- For on-demand training, Screencastify is an affordable screen capturing and editing app allowing you to save, share, and archive tutorials and tech tips. Similarly, WeVideo is an affordable cloud-based video-editing site enabling you to create technology-focused professional development content.

Activity #2: Inquiry Resource Scavenger Hunt

Objective: Introduce learners to the inquiry resources offered in the school library to enable future independent access.

The school library is an information hub, buzzing with activity, and when learners are eager to find answers to a question they've never pondered before, they should be confident in navigating the space and resources at their disposal. If this process is interrupted by questions on where to look for X or how to access Y, the momentum of their curiosity could be stunted. An independent learner is a happy learner.

Inject some fun into the process of orienting learners to the school library with this activity. Design a resource scavenger hunt, early in the school year, to help learners get acquainted with inquiry tools and materials within the library. Scaffold the hunt to different-leveled learners to reflect how the inquiry process should become more sophisticated with age and experience. For example, prepare small group scavenger hunts for younger learners allowing them to problem-solve with others. Each group would receive a different set of two questions, finding a Fiction resource and a Nonfiction resource. Then the groups come together to report their findings to the rest of the class.

For all levels, include checkpoints to ensure learners can navigate the school library collection. If learners are old enough to use the catalog, can they then find a book they're searching for? Where are resource materials like dictionaries, encyclopedias, and maps? Where are popular subjects of inquiry - science, history, current events, and others? Consider what it is you need your learners to be able to do and find and design your hunt around them finding information using those sections of the school library. In middle and high school settings, be sure to include electronic sources like e-books, audiobooks, databases, approved websites, and access to local public libraries (if your school or district has a partnership with them).

The format of the scavenger hunt can also vary to meet the needs of your learners. A printed list of items to find throughout the school library may lead young learners to a letter or phrase posted at each designated resource location, culminating in a secret message spelled-out at the end of their hunt. Older learners may have to hunt for QR codes placed throughout the school library that then link them to tutorials on specified print and digital resources.

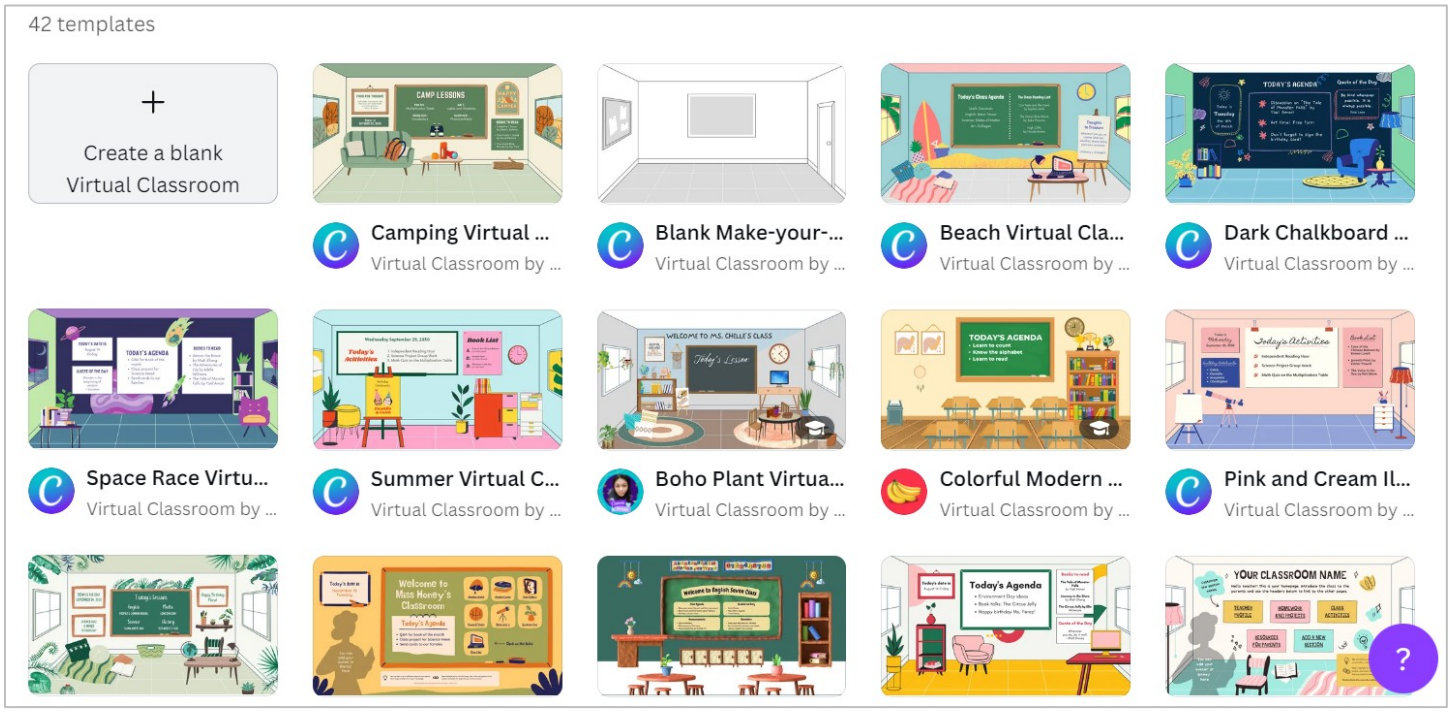
Tutorials and Examples for Creating Scavenger Hunts and Escape Rooms

- Ryan O'Donnell's video "Scavenger Hunt / Digital Break out with Google Forms" (2019) explains how to use Google Forms to create a scavenger hunt or digital breakout experience that provides instant feedback. Learners are either provided

the correct answer or not allowed to proceed until they have entered a specified code—much like a breakout box.

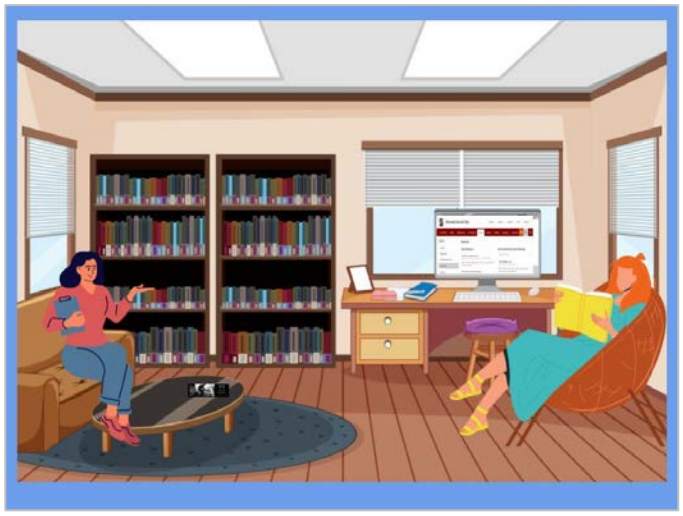
- This video, "Building a Digital Breakout Game in Google Sites," walks viewers through the steps needed to add a Google Site of visuals and clues to go along with a Google Form (Emtech escd 2019). Canva has several virtual classroom templates (figure 5) that can serve as the background for an escape room. Greg Baum of Rockwood Summit High School in Fenton, Missouri created a research escape room using a virtual classroom template and a Google Form. Figure 6a contains five hidden clickable links. Learners discover the links in the image that then lead to clues the learners use to solve puzzles and open locks using a Google Form (figure 6b).
- ThingLink provides the tools and step-by-step instructions on how educators can make a virtual escape room for learners (Ball 2021).
- EBSCO Explora has scavenger hunt questions for both elementary and secondary schools that have access to the database.
- Figure 7 offers an example from a school library scavenger hunt designed for elementary learners and created using Canva.

Figure 5. Virtual Classroom Templates



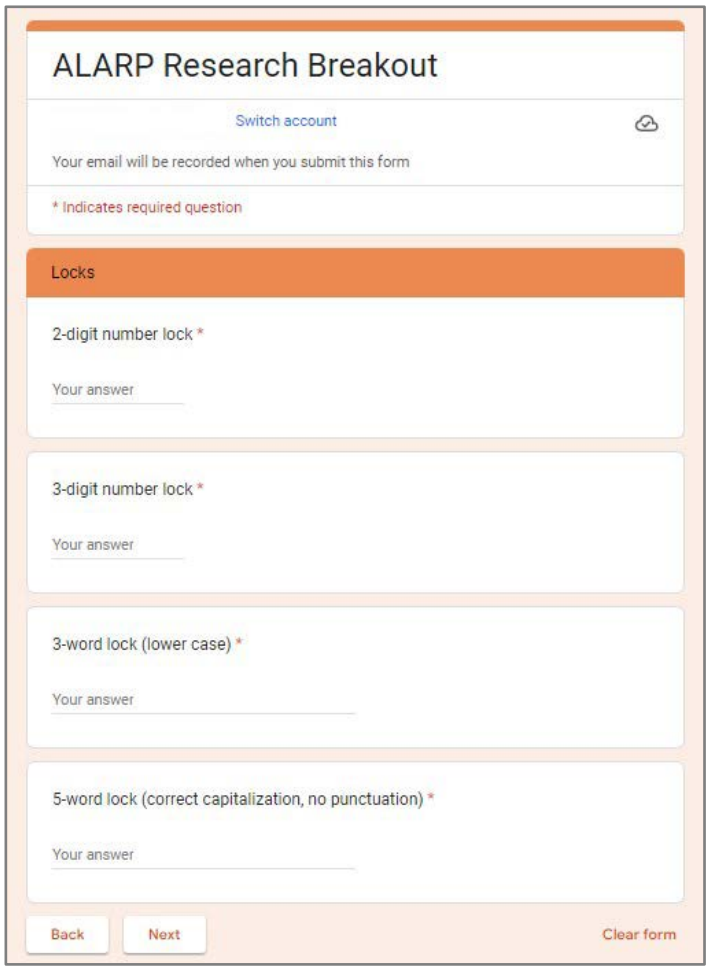
Source: Canva.com

Figure 6a. Escape Room Background



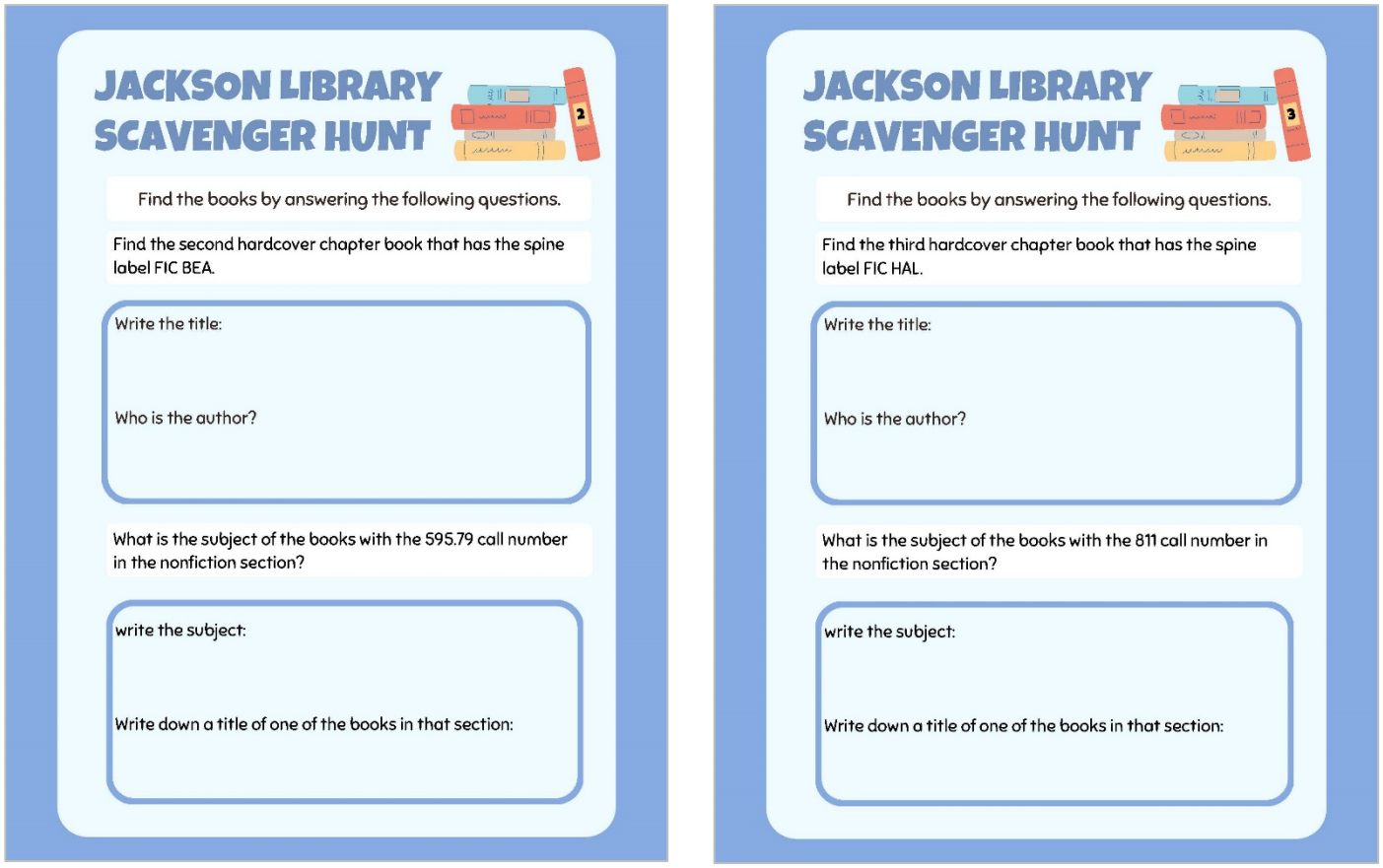
Source: Greg Baum, Rockwood Summit High School, Fenton, Missouri

Figure 6b. Escape Room Google Form



Source: Greg Baum, Rockwood Summit High School, Fenton, Missouri

Figure 7. Fifth Grade School Library Scavenger Hunt



Source: Created by Cybele Garcia Kohel with Canva for Jackson Elementary School

Activity #3: Flexible Scheduling Advocate

Objective: Be an advocate for flexible scheduling in school libraries to ensure all learners and educators can access resources at the point of need.

A school's capability to offer flexible (or responsive) scheduling is limited by many factors; however, it is the role of a school librarian to advocate for this type of schedule. Read AASL's Position Statement on School Library Scheduling to better clarify your understanding.

ALA has 10 Action Steps for Frontline School Advocacy that can be customized to focus on Flexible Scheduling. Step 1 is "Involve," and finding other advocates within the school community is essential. Start by reaching out to colleagues who would directly benefit from the schedule change. Work through the other steps listed, realizing that the topic of Fixed vs. Flexible Scheduling is not completely understood by staff and parents—you'll have to enlighten people along the way. Be prepared to offer creative solutions to administrators.

Flexible Scheduling: Implementing an Innovation will provide talking points for how six elementary schools have successfully completed implementation.

Knowledge Quest blog posts on flexible scheduling:

- "Embracing the Space Between Fixed and Flexible Schedules" explains how a shared Google calendar allowed one librarian to create more flexible scheduling for her school.
- In "Online Scheduling Ideas," one librarian shares how Google Sheets, Google Calendar, and Skedda encouraged collaboration.
- "Journey to a Flexible Schedule: Part 1" is one librarian's story of transitioning from a fixed to a flexible schedule.

In elementary schools, offering flexible scheduling for learners' self-guided library time can happen during recess, lunch, and even after school. During school hours, devising a method for learners to enter the school library is key, so that the library space is not overwhelmed. Either educators can give passes to learners who request them, or the office can have a certain number of passes for those who request them. When those passes are unavailable, the learner can come back later to see if a pass has become available. At the elementary level, access to the school library after school should happen with parents. Additionally, school administrators and educators should never block access to the school library as a behavioral consequence. It is important for learners at the elementary level to become comfortable with the library environment, and critical for learners to assume that access to books is a part of their education.

Additionally, at the elementary level many schools opt to offer educators set library times either weekly or bi-weekly, which helps support learners in understanding what is expected of them in the space, and that they are always welcome.

Share

The scenarios and activities in this section are built on the Inquire Shared Foundation using the Share Domain for school libraries and the following Alignments.

C. Share: The school library provides learners opportunities to maintain focus throughout the inquiry process by:

1. Creating and maintaining a teaching and learning environment that is inviting, safe, adaptable, and conducive to learning.
2. Enabling equitable physical and intellectual access by providing barrier-free, universally designed environments.

3. Engaging with measurable learner outcomes and with data sources to improve resources, instruction, and services.

Scenario: Creating Equitable and Inviting Spaces

Mr. Hyram, a recent library school graduate, has just been hired into his first school librarian position at a large comprehensive high school. At the interview for the position Mr. Hyram learned that the campus is building a brand-new school library that, once opened, would require his management to set up the space and all that entailed. Due to project delays, Mr. Hyram did not receive keys to the building for setup until the first day of school. Overwhelmed by the new position, setup of the space, and his desire to begin building relationships with staff, other educators, and learners, Mr. Hyram was at a loss on where to begin.

Reflecting on his graduate school education, Mr. Hyram decided to focus on looking at existing policies and space design to ensure equitable and accessible offerings for the school environment. Once all items were placed on shelves, he felt pressured to officially open for learners' use, since many would stop by daily expressing interest to come in. However, Mr. Hyram immediately ran into some obstacles.

Items were on shelves and off tables, but signage was non-existent. While a lot of work had already been completed, the space was not navigable for learners and educators. The space lacked a clear flow and once the novelty of the new school library had worn off, Mr. Hyram noticed a decrease in space usage. When learners did come in, they seemed to ignore how he had the space designed and would move things around. Further, classroom educators, while awed by the beauty of the space, do not deem it functional as a classroom space, requesting more often than not for Mr. Hyram to push into classrooms.

One day after lunch, Mr. Hyram asks his student teacher's assistants (T.A.) to straighten up the school library and put the tables and chairs back in their assigned locations. When they are done, he decides to hold a short conference with the student assistants. He wonders if any of them might be able to offer insight on why learners do not seem as excited about the space as they have in the past. Tanisha, a senior, notes that the space seems to be too formal to some of her friends and that they rather just relax in a teacher's classroom when they don't want to be outside. She goes on to say that it's Mr. Hyram's library and he can do what he wants with the space, and as a T.A. she feels comfortable in the space, after getting to know him as a teacher.

Mr. Hyram is surprised at Tanisha's thoughts, especially her saying it's *his* library. He is quick to jump in and note that *no*, the space belongs to the learners, to everyone. He notices as he says this, his other T.A.'s look away. Mr. Hyram wonders, is this how educators are seeing the space as well?

Questions for Further Discussion:

- Asking for learner input is a good starting point. How else can the school librarian make the school library space more inviting?
- What steps can the school librarian take to challenge the perspective of other educators at the site, and make the school library more accessible and adaptable to different uses?
- What measurable learner outcomes and data sources could the school librarian consult to improve resources, instruction, and services?

Activity #1: Creating a Library Advisory Team

Objective: Increase stakeholder engagement in the school library to help ensure an adaptable learning environment.

In a high functioning school library space, how information is accessed by learners should influence library policies and protocols to ensure that the flow of the school library is conducive to promoting a culture of inquiry. Therefore, when considering elements of school library design, whether physically or virtually, it is pertinent to consider how learners will approach using the library facilities, resources, and instructional programs. It is, of course, impossible to anticipate all the varied ways in which your school library will be accessed and used by heterogeneous groups, which is why it can be beneficial to create space within the library program to give stakeholder groups a direct voice in these varied conversations. Programs such as a Library Advisory Team can allow you to combine your expert knowledge with the practical needs of both learners and other educators to create a shared space that speaks to the diverse needs of an entire school environment.

Potential considerations for a Library Advisory Team:

- **The Need/Feasibility** - What flexibility do you currently have in your school library schedule to head such a committee? What data sources currently exist that measure the effectiveness of the school library? How could a Library Advisory Team help deliver more targeted services to promote a culture of inquiry?
- **Membership Composition** - Will the team only consist of student learners? A mixture of educators and learners? Will there be a spot for community members or eager parents? What type of commitment will be required from participants?
- **Group Goals** - How will the direction of the group be decided? What are the top priorities?
- **Meeting Options** - With what frequency will the team meet virtually and/or in-person?

While this is not an extensive list of considerations, the goal is ultimately to think about how to embed the continual evolution and design of the school library into the school's culture of inquiry. The work of a Library Advisory Team may look and function differently depending

on the goals of the specific institution. However, what is important is recognizing how an advisory team can better inform your work as you strive to continuously create and maintain a space that is inviting, safe, adaptable, and conducive to learning.

Additional readings on the topic:

- "Student Library Advisory Boards: Student Library Advisory Boards (SLABs)" is a Libguide that provides best practices and resources for creating a student library advisory board.
- "First steps with a library advisory committee" an article from AASL's *Knowledge Quest* that addresses some of the challenges associated with establishing an advisory committee.

Activity #2: SWOT Analysis

Objective: Use data sources and baseline information to improve school library resources, instruction, and services.

The research process does not begin in a vacuum. While the act of inquiry can occur at any moment in time, building a culture of inquiry must be intentional. Such an endeavor requires continual reflection and deliberate planning to ensure that school library goals align with learner needs and larger school-wide goals. Strategic planning functions as a roadmap once future goals are identified, outlining a means in which to achieve these goals. However, to define where an organization ideally should be in the future, it first requires an in-depth look at the current state of affairs. A SWOT analysis, which stands for Strengths, Weaknesses, Opportunities and Threats, informs strategic planning, and can provide specific data sources to inform decision making in a holistic manner.

The American Library Association provides a template for a SWOT analysis for libraries to use that includes pertinent questions to help direct those unfamiliar with the process. A SWOT can be used to look at the entire school library or focus on areas of specific interest. When conducting a SWOT analysis that looks at the role of inquiry within the school library, pair your investigation with AASL's *National School Library Standards* Evaluation Checklist, specifically the section that speaks to the Shared Foundation of Inquire at both the building and district level. Combining these tools can help you establish a baseline for how the school library serves to foster inquiry, and from that, define achievable goals.

Additional readings on strategic planning:

- "Strategic Planning for Libraries" is a Libguide published by the Massachusetts Library System that contains information, resources and examples for creating strategic plans for various types of libraries.
- "The case for strategic planning" is a *School Library Journal* article that looks at the value of strategic planning within school libraries.

Activity #3: School Library Website

Objective: Maintain a responsive and adaptable school library website that promotes intellectual access to resources.

When we consider the role of the school librarian in directing learners through the inquiry process, more and more this role manifests itself in the digital world. Just as intuitive wayfinding in the physical library building is essential to the inquiry process, so too is proper signage and navigability in a school library's digital environment. The school library's digital presence, when consistently honed, becomes one of its most essential tools given that it is a resource available to users 24/7. However, how often are we asking questions and seeking feedback on the impact on our digital resources on the learning environment?

In 2016, Anthony S. Chow et al. conducted a research study that examined the usability of school library websites. In this study, information seeking behaviors were contextualized against best practices for website design for youth. In many cases, school library sites were being underutilized and not addressing the full scope of a school library program. The sample school libraries showed that a lack of a clearly defined information space was doing more harm than good. By focusing on best practices in website design that address a targeted age, functionality, and accessibility, along with relevant content, websites can ultimately be more impactful.

When discussing best practices, Joyce and Nielsen (2019) explain that websites that are geared toward teens need to be focused on what the teens are willing and capable to do. Websites should not be overly dependent on graphics and interactive aspects, and that, instead, should focus on a few interactive components while providing access to key information needed. Additionally, when possible, it is advised to ensure multiple modes of accessibility, for example, consider having a website that is designed for use on both a traditional computer interface and mobile devices. Further, consider the layout of features. Is the website organized in an intentional manner? Website flow can help reinforce the steps of an inquiry process and promote curiosity.

Depending on one's school system, there are many options out there for website design. Note, a school's learning management system or a school library's management system can be used as the library's web presence. Listed below are a few examples of popular external website creation tools. Special care and consideration must be made to ensure accessibility when using website creation tools outside of what is directly hosted within the school system.

- Blackboard - While many schools provide access to Blackboard as an online learning tool available to educators, it is also commonly used to design the school website and

subsequent pages associated with the school. However, it is limited in customizations.

- Google Sites - A free hosting platform, Google Sites allows you to link a Google Site webpage within the school's main website. It provides easy customization and allows for multiple pages and navigation tools. Google Sites provides access to analytics of how patrons are using the website.
- Wordpress - Another simple to use design platform, Wordpress allows users to make multiple pages that are easily navigable. While not as user friendly as Google Sites, Wordpress provides the most customizable options. Wordpress, like Google, provides in-depth analytics of patron usage.

Additional readings on website design and creation for school libraries:

- "School Library Website – User Friendly and Learner Centered" is a short *Knowledge Quest* article that discusses initial steps for setting up a school library website.
- "Planning your school library's online presence" is an in depth look at establishing a school library website from the National Library of New Zealand.
- "Antioch University Seattle School Library Endorsement Program: Library Websites" a Libguide collection of school library website examples from Antioch University Seattle.

Grow

The scenarios and activities in this section are built on the Inquire Shared Foundation using the Grow Domain for school libraries and the following Alignments.

D. Grow: The school library ensures an inquiry-based process for learners by:

1. Establishing and supporting a learning environment that builds critical-thinking and inquiry dispositions for all learners.
2. Reinforcing the role of the school library, information, and technology resources in maximizing learning and institutional effectiveness.

Scenario: Sharing School Library Resources

Ms. Jensen, a seasoned school librarian, recently relocated to a rural community and took on the school librarian position at the local elementary school. This is the first year that the elementary school has had a full-time, certified school librarian. Ms. Jensen is eager to work with other educators and learners in the school library and support the curriculum. However, as the year progresses, she notices that the classroom educators solely come to the school library with learners to check out books.

Joseph, a fourth grader, comes to the school library one day asking for books about steam trains because that is the topic of his informational writing assignment. Ms. Jensen not only points him to print resources in the school library, but helps him find information using the school-provided databases online. Joseph has never accessed these databases before and is excited to share it with his class.

Ms. Jensen knows that the school library can do more to support the learners, classroom educators, and curriculum. When she talks with the other educators at her school, she realizes that they are not familiar with the tools available through the school library or how they can be used in the classroom.

Questions for Further Discussion:

- In what ways can Ms. Jensen reach out to other educators in her building to teach them about the school library tools and resources available to them?
- What are some library programs Ms. Jensen could try that would build critical-thinking and inquiry dispositions for all learners throughout the school year?
- How can the school librarian collaborate with and support other educators while at the same time reinventing the role of the school library in the building and curriculum?
- To what extent can the library space cultivate an inquiry culture?

Activity #1: Implement a School-wide Digital Badge System

Objective: Encourage inquiry by centering the school library in the development of new skills in learners.

It's not uncommon to hear educators bemoan the fact that they're sure learners were taught specific skills the previous year, but now they are not showing mastery or proficiency. A school librarian can also face the problem of classroom educators repeating inquiry skills without adding complexity year after year, because the educators are unsure of what learners were previously taught. Collaborating with a team of educators from various grade levels and content areas to agree on a progression of inquiry skills and create a digital badge system, could help learners and educators know exactly what skills learners have been exposed to or mastered. Gamifying the mastery of skills can be incredibly motivating for learners, and digital badges allow educators to differentiate instruction to learners' needs because they create visual reminders of the learners' skills.

To implement a digital badge system, first determine which method of inquiry will be taught at all levels throughout the school. As the school librarian, take the time to lead other educators in your building to an informed decision. Then, determine which skills are essential

to include in the badge system. Depending on the age of learners, skills might include the following:

- Questioning
- Devising a plan to answer questions
- Investigating answers
- Locating a variety of sources
- Evaluating sources
- Note taking
- Summarizing, Paraphrasing, & Quoting
- Communicating findings
- Reflecting
- Evaluating work (self and others)
- Revisiting research

Also, consider adding badges for the mastery of tools within the school library, such as databases, e-books, online subscription services, etc.

The school library and school librarian can be at the center of these lessons to ensure the skills that do repeat in the inquiry process grow in sophistication for learners each year. Badges can be created in Canva with images from The Noun Project. The badge system can be created with Flippity or Google Looker Studio. Assessments should be written by educator teams with the school librarian to reflect mastery of each skill. Each learner will then develop a portfolio of badges as they acquire skills. Schools that use a LMS can even create modules that will allow for reteaching and reassessing if a learner needs to revisit a skill.

Activity #2: Provide Media Literacy Professional Development

Objective: Emphasize the school library's role in teaching media literacy skills by offering strategies, resources, and training to colleagues.

The internet and other forms of media have undeniably impacted education. While some educators laud the ease of accessing information, others recognize how the deluge of sources can complicate learners' abilities to find reliable content. According to Media Literacy Now, as of March of 2023, only eighteen states have taken legislative action to include media literacy in curriculum, yet this has quickly become an essential skill for the twenty-first century. The school library needs to become the heart of a building's efforts to prepare learners. Lessons in media literacy must not only be taught by school librarians but by other educators throughout the school; therefore, quality professional development needs to be available to educators.

School librarians can find ideas for PD to meet the needs of other educators in their school community on sites like Commonsense.org, which has News & Media Literacy lessons and Inquiry-based projects for all levels.

The Stanford History Education Group provides curriculum on Civic Online Reasoning for middle and high school learners. Lessons aim to teach important inquiry skills such as "Lateral Reading," "Click restraint," and "Fact Checking with Wikipedia" and include links to Crash Course videos and assessments.

NewseumED and AllSides are also valuable resources to share with educators during media literacy focused professional development. For news literacy resources, visit the News Literacy Project and its free e-learning platform called Checkology. For fact-checking videos made by teens for teens, be sure to visit the Teen Fact Checking Network, created by Poynter.

Activity #3: Using Wayfinding and Signage to Promote a Culture of Inquiry

Objective: Establish a learning environment that promotes the inquiry process through additional signage.

School library signage and wayfinding can help patrons find essential areas of the library, like the checkout desk, restrooms, offices, and specific sections of resources. Signage can also provide instructional support, showing learners how to use a tool or questions to consider while researching. An excerpt from *Library Signage and Wayfinding Design* by Mark Aaron Polger, lists best practices for signage design as follows:

- Make signs succinct and legible
- Keep user experience (UX) design principles in mind.
- Make text and visuals consistent.
- Design for ADA compliance.
- Place signage with purpose.
- The number of signs matters.
- Revisit your signs often.
- Signs should be professionally designed.
- Create a signage policy.

Incorporating signage in the school library space is crucial for learners to navigate and to find the literature and resources for which they are searching. In this same respect, including information about the inquiry process throughout the shared space supports learners with quick reference signage as a tool to further their questions and research. This could be in the form of posters, QR codes, bookmarks, or signs posted throughout the school library.

Examples of Graphics Illustrating the Inquiry Process:

- The Inquiry Process Step by Step by Tina Barseghian
- Inquiry Approach to Learning by Let's Talk Science
- Inquiry Learning Model by St Joseph's Onehunga School

You can create your own infographic highlighting the Inquiry Process and/or Critical Thinking Questions using a variety of tools.

- Canva is an online graphic design tool that can be used to create social media posts, presentations, infographics, invitations and more. The base subscription is free and different levels allow access to more tools and options.
- Google Slides is included in the free, web-based Google suite and provides space for developing presentations. This tool can be implemented as an individual or can be shared with others to create collaboratively.
- Keynote is an Apple iOS product that can be accessed on an Apple device only. It is a tool for creating presentations that can be used collaboratively with other Apple users.

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Appendix

Appendix A: Resource Matrix

$ Denotes tools and products that require a fee or subscription for access.

Name of Resource	Description	AASL Best Digital Tools	Paid Product	ACTIVITIES USING THIS RESOURCE
Books or Booklists				
31 Days, 31 Lists: 2022 Comics and Graphic Novels for Kids	Lists of graphic novels for kids published through *School Library Journal*.			School Libraries - Think: Activity 2
A Children's Library of Question Books from *A More Beautiful Question*	This curated list features children's books that encourage wonder and curiosity.			Learners - Grow: Activity 1
Best Graphic Novel Reading Lists	Lists of graphic novels organized by year, curated by the American Library Association.			School Libraries - Think: Activity 2
Cooperative Children's Book Center	Books organized around a variety of themes and topics. Many of the lists feature books for readers across a range of ages and will be found in more than one of the categories.			
Diverse Bookfinder	This collection of children's picture books featuring BIPOC can be used to encourage learners to reflect on real-world connections.	●		Learners - Grow: Activity 2
Social Justice Books	Curated lists of reviewed books organized by audience, topic.			School Libraries - Think: Activity 2
WNDB	We Need Diverse Books provides lists of books for learners of all levels on relevant, modern themes.			Learners - Grow: Activity 2
Creation tools				
Adobe Firefly	This paid product creates new artistic images from text.		$	School Libraries - Think: Activity 3
Blackboard	This paid product can be used as a school's LMS and/or for creation of websites.		$	School Libraries - Share: Activity 3

Name of Resource	Description	AASL Best Digital Tools	Paid Product	ACTIVITIES USING THIS RESOURCE
Book Creator	An online tool allowing learners to create and collaborate on digital books.	●		Learners - Create: Activity 3 School Libraries - Think: Activity 2
Canva	This website allows users to create their own infographics and visuals from hundreds of pre-made templates. Users can easily personalize content by adding text and changing images and colors.	●		Learners - Create: Activity 3 School Librarians - Create: Activity 3 School Libraries - Think: Activity 2 School Libraries - Create: Activity 2 School Libraries - Grow: Activity 1 School Libraries - Grow: Activity 3
Canva Text to Image	Canva's built-in tool generates images based on text descriptions.			School Libraries - Think: Activity 3
Comic Life 3	Creative tool that allows learners to tell stories through comics.	●		School Libraries - Think: Activity 2
DALL-E 2	Pay for an AI to create images and art based on detailed written descriptions.		$	School Libraries - Think: Activity 3
Google Drawing	Create infographics or share inquiry findings by adding shapes, images, and text.			School Librarians - Create: Activity 3
Google Sites	Create a simple site with pages of resources for learners or educators, or learners can easily create a site of inquiry findings. Recommended for middle and high school audiences.			Learners - Create: Activity 3 School Libraries - Create: Activity 1 School Libraries - Create: Activity 2 School Libraries - Share: Activity 3
Google Slides	Included in the free, web-based Google suite, this tool can be implemented by individual learners or shared among groups to collaboratively create presentations.			School Libraries - Grow: Activity 3
Imagen	Google's photo realism text-to-image technology. In beta as of spring 2023.			School Libraries - Think: Activity 3
Keynote	An Apple iOS product (accessed on Apple devices only) for creating presentations and can be used collaboratively with other Apple users.			School Libraries - Grow: Activity 3

Name of Resource	Description	AASL Best Digital Tools	Paid Product	ACTIVITIES USING THIS RESOURCE
The Noun Project	This website offers a diverse collection of free icons that can be used by learners or school librarians to create visuals.			School Libraries - Grow: Activity 1
Thinglink	This website allows users to create an image with icons or "tags" that allow viewers to interact with the image by linking to additional content.	●		School Librarians - Create: Activity 3 School Libraries - Create: Activity 2
WeVideo	This affordable cloud-based video-editing site enables users to make videos. This could be used by school librarians to share tutorials with learners or educators or used by learners to share inquiry findings.		$	School Libraries - Create: Activity 1
WordPress	Offering free and paid options this resource can be used for website design and more.			School Libraries - Share - Activity 3
Collaboration tools				
Flippity	A free resource for school librarians to create interactive games or tools such as a digital badge system.			School Libraries - Grow: Activity 1
Google Calendar	A shared Google Calendar would allow users to view school library space and services that have already been scheduled.			School Libraries - Create: Activity 3
Google Looker Studio	A free tool that allows users to make fully customizable dashboards with their own data, which would be valuable for a digital badge system.			School Libraries - Grow: Activity 1
Google Sheets	A shared Google Sheet would allow users to see and edit a library calendar to reserve space and/or services (if enabled).			School Libraries - Create: Activity 3
Screencastify	This affordable screen capturing and editing app allows users to save, share, and archive tutorials and tech tips.		$	School Libraries - Create: Activity 1

Name of Resource	Description	AASL Best Digital Tools	Paid Product	ACTIVITIES USING THIS RESOURCE
Skedda	Skedda is an online booking and scheduling platform with a free account option.			School Libraries - Create: Activity 3
Slides (Microsoft or Google)	Easily hyperlink lists or "gameboards" of resources for learners to explore while researching. Create curated resources for grade levels or departments.			School Librarians - Create: Activity 1 School Librarians - Create: Activity 3
Smore	Use this affordable online platform to make and distribute newsletters.	●	$	School Libraries - Create: Activity 1
Further Reading				
Guided Inquiry Design: A Framework for Inquiry in Your School by Carol C. Kuhlthau, Leslie K. Maniotes, and Ann K. Caspari	This book is for all K-12 educators who desire to design and implement a guided inquiry process in their schools.			
Guided Inquiry: Learning in the 21st Century by Carol C. Kuhlthau, Leslie K. Maniotes, and Ann K. Caspari	Grounded in Kuhlthau's six stage Information Search Process, this book convinces educators to envision Guided Inquiry as an essential step in developing information literacy.			
How to Choose a Co-Teaching Model	This article outlines and provides examples for the six types of co-teaching models.			School Librarians - Grow: Activity 2
How Usable Are School Library Websites? A Random Sample from All Fifty States	A research article discussing school library websites.			School Libraries - Share: Activity 3
IQ: A Practical Guide to Inquiry-Based Learning by Jennifer Watt and Jill Colyer	This professional resource offers practical ideas and tools for implementing the inquiry process in classrooms.			

Name of Resource	Description	AASL Best Digital Tools	Paid Product	ACTIVITIES USING THIS RESOURCE
Inquiry Based Learning: The Definitive Guide	This article explores the differences between traditional learning and inquiry-based lessons, as well as the four steps in the inquiry process.			School Librarians - Share: Activity 1
Inquiry-Based Learning: From Teacher-Guided to Student Driven	This article how to build student engagement and learning in science lessons using the inquiry process.			School Librarians - Share: Activity 1
Inquiry-Based Learning Questions for Research and General Inquiry	This article offers an inquiry framework, and gives examples of types of inquiry-based learning questions.			School Librarians - Share: Activity 1
Teenager's UX: Designing for Teens	This article discusses targeting website design at teenagers.			School Libraries - Share: Activity 3
Voice and Choice: Student Library Advisory Team	An article discussing Library Advisory Teams.			School Libraries - Share: Activity 1
What the Heck is Inquiry-Based Learning?	This article describes what is at the core of inquiry-based learning.			School Librarians - Share: Activity 1
Inquiry Tools				
Bard	Google's AI-powered chatbot has the ability to mimic human conversations.			School Libraries - Think: Activity 3
The Big6	A six-stage model to use for problem solving, inquiry, and research. Can be modified for younger learners.			School Libraries - Think: Activity 1
Bloom's Revised Taxonomy	Available through the University of Michigan, this free resource provides detailed information on the taxonomy and instructional uses.			Learners - Think: Activity 3
ChatGPT	This currently free AI chatbot was developed to respond to prompts by providing a detailed response.			School Libraries - Think: Activity 3

Name of Resource	Description	AASL Best Digital Tools	Paid Product	ACTIVITIES USING THIS RESOURCE
Commonsense.org /education	A website offering free News & Media Literacy lessons and Inquiry-based projects for all levels.			Learners - Create: Activity 1 School Libraries - Grow: Activity 2
Google Forms	Create a scavenger hunt or digital breakout that provides instant feedback on where inquiry tools can be found within the school library.			School Libraries - Create: Activity 2
KQED Teach	This website contains professional development courses for educators to teach media literacy in K-12 schools.			Learners - Share: Activity 2
Library of Congress: Getting Started with Primary Sources	Offers free resources for learners and educators to support using primary sources in the classroom.			School Librarians - Think: Activity 2
Perplexity	This currently free AI chatbot quickly answers questions and prompts through a web browser or app and provides links to citations and related topics.			School Libraries - Think: Activity 3
Question Formulation Technique from the Right Question Institute	Online database of lessons, research, and videos for educators to learn and teach learners about asking quality questions to guide inquiry.			School Librarians - Think: Activity 1
Revised Bloom's Taxonomy: Question Starters	Available through Illinois University, this resource can be used by learners to help develop questions in accordance with the different levels of the taxonomy.			Learners - Think: Activity 3
School Library Evaluation Checklist	Available through AASL, this is a tool for evaluating the school library program.			School Librarians - Share: Activity 2
Ted Talks	Learners can watch over 4,000 speeches to "stir curiosity."			School Librarians - Create: Activity 1

Name of Resource	Description	AASL Best Digital Tools	Paid Product	ACTIVITIES USING THIS RESOURCE
Research tools				
AllSides	This website aims to teach learners about media bias and misinformation by providing current event articles from left, right, and center political perspectives.	●		Learners - Grow: Activity 1 School Libraries - Grow: Activity 2
Britannica School Elementary	Online encyclopedia, for elementary school learners.	●		Learners - Create: Activity 1
Britannica School Middle	Online encyclopedia, for middle school learners.	●		Learners - Create: Activity 1
Britannica School High	Online encyclopedia, for High school learners.	●		Learners - Create: Activity 1
Britannica School Escolar (Spanish)	Online encyclopedia, for English learners and Spanish learners.	●		Learners - Create: Activity 1
The Beryl Library on organizing research	An overview of different methods to organize research and information.			Learners - Create: Activity 2
CIA World Factbook	The CIA provides information on 266 world entities.			Learners - Grow : Activity 3 School Librarians - Create: Activity 1
Classroom Video on Demand	Classroom Video on Demand is a video subscription database for high schools with content across departments.		$	School Librarians - Create: Activity 1
CNN10	CNN's daily current events broadcast is created for learners 13 and older and is always less than 10 minutes in length.			Learners - Grow: Activity 1
Discovery Education	A subscription digital learning platform with over 50,000 video clips that tie to curricular standards at all levels.	●	$	School Librarians - Create: Activity 1
EBSCO Explora scavenger hunt questions	This database provides premade scavenger hunt activities for elementary and secondary learners.			School Libraries - Create: Activity 2
Google News	Learners can find local, national, and international news as well as customize their own news feeds.			School Librarians - Create: Activity 1

Name of Resource	Description	AASL Best Digital Tools	Paid Product	ACTIVITIES USING THIS RESOURCE
The Harris Poll	A global marketing research firm provides reports on consumer habits that may spark questions for high school learners.			School Librarians - Create: Activity 1
The News Literacy Project	This website provides lessons and materials to learners and educators on news literacy.	●		School Libraries - Grow: Activity 3
NewseumED	A website with free lesson plans and case studies on media literacy.	●		School Libraries - Grow: Activity 2
Our World in Data	An open access collection of over 3,000 data charts on nearly 300 topics - appropriate for high school audiences.			School Librarians - Create: Activity 1
The Stanford History Education Group's Civic Online Reasoning Lessons	Free lessons, posters, and assessments for middle and high school learners on online reasoning skills.	●		School Libraries - Grow: Activity 2
Statista	This online platform provides trending statistics and allows learners to search for statistics by topic. Content is best suited for high school; some content requires a fee.			School Librarians - Create: Activity 1
Symbaloo	Educators can create a dashboard of clickable tiles to link learners to research resources.	●		School Librarians - Create: Activity 1
Teen Fact Checking Network	MediaWise produces fact-checking videos made by teens for teens to teach media literacy skills.			School Libraries - Grow: Activity 2
Worldometers	This reference website provides statistics in real time on a variety of topics.			School Librarians - Create: Activity 1

Name of Resource	Description	AASL Best Digital Tools	Paid Product	ACTIVITIES USING THIS RESOURCE
Worksheets, handouts, and other instructional tools				
ALA Great Stories Book Club	This reading and discussion group provides the resources to lead high school book clubs on relevant modern themes.			Learners - Grow: Activity 2
ASL Video: Question Words	This video shows an American Sign Language (ASL) Interpreter signing question words.			School Librarians - Grow: Activity 3
Copyright & Creativity	Resources for learners and educators for teaching and learning about copyright and its associated concepts.	●		Learners - Share: Activity 2
Environmental Protection Agency	Climate change resources for educators and learners.			Learners - Create: Activity 1
Graphic Organizers Organize Your Facts!	Blank worksheets to assist learners in organizing research.			Learners - Create: Activity 2
Inspiring Inquiry	A tool that dives into a revised "KWHLAQ" chart and thinking strategies for each segment of the chart.			Learners - Think: Activity 1
Joy of Museums	Virtual tours for the top 100 museums in the United States.			School Librarians - Grow: Activity 1
Kagan Online	An online catalog of collaborative, pedagogical resources to promote collaborative learning.		$	Learners - Think: Activity 2
Learning for Justice: Challenge the Text	Learning for Justice offers PD for educators and many resources for use in the classroom. Challenge the text is an example of one teaching strategy from the site.			School Librarians - Think: Activity 3
Literacy Ideas	An informational page explaining the difference between a book review and a book report.			School Librarians - Share: Activity 3

Name of Resource	Description	AASL Best Digital Tools	Paid Product	ACTIVITIES USING THIS RESOURCE
Mensa for Kids	An informational page about writing book reviews.			School Librarians - Share: Activity 3
National Oceanic and Atmospheric Administration	Resource collections on weather and climate change for education.			Learners - Create: Activity 1
Read Write Think	A lesson plan on writing book reviews for secondary learners.			School Librarians - Share: Activity 3
Skype a Scientist	Connects classrooms to a scientist in a specific field for a Skype session where learners can ask questions to gather information.			School Librarians - Grow: Activity 1
Smithsonian American Art Museum	Contains a variety of programs available for educators and learners to connect with museum presenters regarding many topics.			School Librarians - Grow: Activity 1
SWOT Analysis Template	Available through ALA, this document is a template for conducting a SWOT analysis.			School Libraries - Share: Activity 2

AASL Standards Framework Applied to Developing Inquisitive Learners Activity Guide

Developing Inquisitive Learners, Critical Thinkers, and Resourceful Citizens, an activity guide developed by the 2023 ALA Emerging Leaders, uses the *National School Library Standards* and the Shared Foundation of Inquire as a lens to support professional development and instruction as school librarians guide learners' engagment in the inquiry process. Use this framework application as a secondary table of contents to navigate to relevant scenarios, activities, and resources. To access the complete resource guide, visit **standards.aasl.org/project/inquisitive**.

NATIONAL SCHOOL LIBRARY STANDARDS

Domain	LEARNER SCENARIOS AND ACTIVITIES	SCHOOL LIBRARIAN SCENARIOS AND ACTIVITIES	SCHOOL LIBRARY SCENARIOS AND ACTIVITIES	Domain
THINK	**Scenario:** Diving into the Research Process **ACTIVITIES** **1. Organizing the Inquiry Process:** Learners recall prior and background knowledge as context for new meaning. **2. Round Table Information Collection:** Learners build collective background knowledge. **3. Levels of Questions:** Learners use Bloom's Revised Taxonomy to formulate questions about a personal interest or a curricular topic.	**Scenario:** Encouraging Questions to Guide Research **ACTIVITIES** **1. Using the Question Formulation Technique:** Engage learners in asking a variety of questions to guide the inquiry process. **2. Inquiry Journals:** Engage learners in recalling known information and question development. **3. Challenging the Text:** Engage learners in the act of asking critical questions.	**Scenario:** Collaborating to Support a Universal Research Model **ACTIVITES** **1. Bringing a Universal Inquiry Model to the School:** Promote a common instructional-development and information-search process throughout the school to improve integration with curriculum. **2. Inquiry as an Interdisciplinary Opportunity:** Embed the inquiry process into interdisciplinary collaborations. **3. Explore the Role of AI in Schools:** Approach educational changes with curiosity and share new knowledge with other educators.	**THINK**
CREATE	**Scenario:** Supporting In-Cass Learning by Allowing Learners Multiple Ways to Access Resources **ACTIVITIES** **1. Learning the School Library Ecosystem:** Learners maximize time spent searching for information used to explore their questions and evidence for their writing. **2. Learners Organize Research:** Learners organize the information they find for the research products they are creating. **3. Learners Present Their Findings:** Learners use creative tools to present their knowledge.	**Scenario:** Taking Learners Beyond Google **ACTIVITIES** **1. Research 4-To-Score:** Provide access points for learners to explore questions using a variety of sources. **2. Inquiry Conferences:** Meet with learners during the inquiry process to assist with problem solving. **3. Learner-Made Research Infographics:** Collaborate with content-area educators to develop infographic-style assessments for learners to showcase their learning.	**Scenario:** Provide Relevant PD With (or without) a Flexible Schedule **ACTIVITIES** **1. Flexible Professional Development Opportunities:** Provide PD and information on school library resources in a variety of formats. **2. Inquiry Resource Scavenger Hunt:** Introduce learners to the inquiry resources offered to enable future independent access. **3. Flexible Scheduling Advocate:** Be an advocate for flexible scheduling in school libraries to ensure all learners and educators can access resources at the point of need.	**CREATE**
SHARE	**Scenario:** Peer Research Review **ACTIVITIES** **1. Inquiry Geometry:** Learners engage with peers in an environment that empowers learners in the feedback process. **2. Creating for an Authentic Audience:** Learners create and share learning products with an authentic audience. **3. Constructive Criticism and the Feedback Loop:** Learners reflect on the feedback loop and engage in applying constructive criticism effectively.	**Scenario:** Exploring Inquiry-Based Learning to Support Shared Learning Experiences **ACTIVITIES** **1. In-Class Genre Exploration Through an Inquiry-Based Process:** Design an inquiry-based learning lesson for classifying fiction genres. **2. Self-Guided Genre Exploration:** Allow learners to explore different genres, which may be a new source of reading engagement. **3. Sharing Learner-Written Book Reviews via the School Library's Online Catalog:** Learners publish their book reviews to share with the entire school.	**Scenario:** Creating Equitable and Inviting Spaces **ACTIVITIES** **1. Creating a Library Advisory Team:** Increase stakeholder engagement in the school library to help ensure an adaptable learning environment. **2. SWOT Analysis:** Use data sources and baseline information to improve school library resources, instruction, and services. **3. School Library Website:** Maintain a responsive and adaptable school library website that promotes intellectual access to resources.	**SHARE**
GROW	**Scenario:** Thought-provoking Displays **ACTIVITIES** **1. Encourage Questioning with Interactive "Wonder" Displays:** Learners ask questions and express curiosity about the real world and current events. **2. Book Clubs Focused on Real-World Problems:** Learners reflect on how their lives compare to the lives of fictional characters and draw conclusions on humanity and how to treat others. **3. Google-Buster Question Challenge:** Learners continuously ask questions and conduct research to find answers.	**Scenario:** The Stale Research Project vs. Authentic Inquiry **ACTIVITIES** **1. Connecting with Experts:** Enable learners to make real-world connections. **2. Co-Teaching and Modeling:** Use co-teaching models to lead learners and educators through the research process. **3. Pairing Question Words with American Sign Language:** Engage the youngest learners in how to ask questions about topics of interest.	**Scenario:** Sharing School Library Resources **ACTIVITIES** **1. Implement a School-wide Digital Badge System:** Encourage inquiry by centering the school library in the development of new skills. **2. Provide Media Literacy Professional Development:** Emphasize the school library's role in teaching media literacy skills by offering strategies, resources, and training to colleagues. **3. Using Wayfinding and Signage to Promote a Culture of Inquiry:** Establish a learning environment that promotes the inquiry process through additional signage.	**GROW**

Driving Inquiry in the School Library:
A JOURNEY THROUGH THE THREE C'S

Use this infographic to help guide conversation with stakeholders about the importance of learners' journey through the inquiry process displaying curiosity, critical thinking, and congnitive rigor. Find scenarios, activities, and tools to support inquiry in *Developing Inquisitive Learners, Critical Thinkers, and Resourceful Citizens*. Visit **standards.aasl.org/project/inquisitive**.

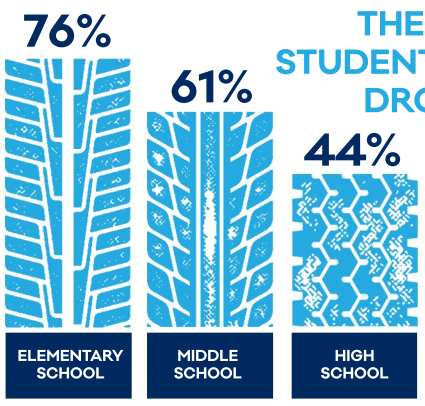
NATIONAL SCHOOL LIBRARY STANDARDS

"THE POWER TO QUESTION is the **basis of all human progress**." - INDIRA GANDHI

CURIOSITY

"The important thing is **not to stop questioning**. **CURIOSITY** has its own **reason for existing**." - ALBERT EINSTEIN

THE SCHOOL CLIFF: STUDENT ENGAGEMENT DROPS OVER TIME [1]



"EDUCATION is not the **filling of a pail**, but the **LIGHTING OF A FIRE**." - WILLIAM BUTLER YEATS

"If CURIOSITY includes both the **DESIRE** for information and **EXPLORATION** to gather that information, regular **PROMOTION OF CURIOSITY** in classrooms would result in more frequent feelings of CURIOSITY and INFORMATION-SEEKING BEHAVIOR." [2]

"It is better to **DEBATE A QUESTION WITHOUT SETTLING IT** than to **settle a question without debating it**." - JOSEPH JOUBERT

500+ **college librarians** surveyed said STUDENTS [3]

- have **TROUBLE SELECTING a research topic** and creating objectives
- rely heavily on **GOOGLE SEARCHES**
- are **OVERCONFIDENT** about their research abilities
- have **TROUBLE VETTING SOURCES** for reliability
- **can't properly CITE SOURCES**

69% of **12TH graders** ARE **COLLEGE BOUND**. [3]

ONE in FOUR high school libraries have **SET GOALS** for **preparing students** for college research. [3]

ONE in THREE first-year college students **are prepared to SUCCESSFULLY COMPLETE** a **college-level** RESEARCH PROJECT. [3]

CRITICAL THINKING

"[Cognitive rigor] promotes **INTELLECTUAL INVOLVEMENT** by challenging students to **explain what they have learned** in THEIR OWN **UNIQUE** WAY." [5]

"**School librarians** know the **INQUIRY PROCESS** like **language arts teachers** know the **WRITING PROCESS** and **science teachers** know the **SCIENTIFIC METHOD**." [4]

COGNITIVE RIGOR

Educators can **encourage COGNITIVE RIGOR** by teaching learners to DEVELOP GOOD QUESTIONS that serve as **assessments** and set the **instructional focus** for learning. [5]

"Increase the likelihood that students will **engage in PRODUCTIVE STRUGGLE** by EXPLICITLY REPEATING that ***the feeling of STRUGGLE is the feeling of LEARNING***." [6]

"STUDENTS ARE NOT COMPUTERS, of course, but if we're not **MINDFUL** of the way we **ENGAGE** them, they may do what computers do and **SHUT DOWN**." [6]

Find infographic sources listed under Works Cited in the *Developing Inquisitive Learners, Critical Thinkers, and Resourceful Citizens* Activity Guide. Visit **standards.aasl.org/project/inquisitive**.

American Association of School Librarians
TRANSFORMING LEARNING

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