



ISKME (Institute for the Study of Knowledge Management in Education)

School Librarians Advancing STEM Learning Project's School Librarian Leadership Skills Rubric & Teacher Partnership

The rubric is designed to guide our practice in supporting and evaluating effective school librarian leadership development within this project. The components of the rubric are called **elements** -- the building blocks that this project deems as necessary to support school librarians to co-lead and promote high-quality STEM learning experiences that take advantage of rich information, openly accessible resources, and useful technologies, and as they collaborate with STEM teachers to integrate text-focused inquiry and literacy into the curriculum.

Leadership Element	Outcomes for School Librarians (SLs)
I. Collaboration & Thought Partnership	Model and facilitate exemplary collaboration and shared-problem solving practices with STEM teachers to build effective partnerships around a shared vision for STEM learning, literacy, and a culture of inquiry across classrooms, the campus, and into the community.
II. Curriculum & Instruction	Articulate the rigor and relevance of the Common Core Science Literacy Standards and the crosscutting concepts of the NGSS Framework to co-design curriculum, and model the instructional shifts required for the integrated instruction of literacy and inquiry in the STEM classroom.
III. Open Education Practices	Build a library environment (physical, digital, experiential) that advances a school culture of open education practice and the use of open educational resources (OER) for collection building, curriculum design and program development, in the context of continuous improvement.

<p>I. Collaboration & Thought Partnership</p> <p>Model and facilitate exemplary collaboration and shared-problem solving practices to build STEM literacy and a culture of inquiry across classrooms, the campus, and into the community.</p>
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SL Learning Objectives	SL Performance Indicators
A. <u>Define & Implement Collaborative Processes</u> : SLs will understand their roles as collaborative thought partners and be able to define and implement strategies for successful collaboration with STEM teacher colleagues	Identifies priorities for teacher-SL collaboration and builds time-bound objectives toward those goals. Identifies mechanisms and channels (face-to-face and online) for teacher-SL communication about student learning, STEM inquiry, and curriculum design, and initiates and maintains dialogue using those channels.
B. <u>Initiate Co-design Practices</u> : SLs will be able to take the lead on and engage STEM teachers around co-visioning and co-designing for inquiry in the STEM classroom.	Recruits STEM teachers to participate in the collaborative design of learning experiences for students. Introduces and guides the collaborative design and implementation of curriculum materials by defining teacher and SL roles, and how those roles can best work together to create and implement STEM lessons and learning experiences.
C. <u>Advocate</u> : SLs will be able to advocate to peers and within and beyond their school sites, and share insights, learnings, and approaches to STEM teaching and learning	Builds and implements an outreach plan that includes face-to-face and online communication with peers and the larger professional community to share and model SL-led teaching and learning approaches that advance inquiry-based reading and science literacy skills in the STEM classroom.

II. Curriculum & Instruction

Articulate and integrate the rigor and relevance of the Common Core Science Literacy Standards, NGSS (or State Science Standards), including NGSS Crosscutting Concepts #1 and #2 into the science curriculum & classroom.

SL Learning Objectives	SL Performance Indicators
A. <u>Understand & Articulate the Relevant Learning Standards and Instructional Shifts</u> : SLs will be able to communicate the role of literacy investigations in STEM in attaining to the CCSS, NGSS and C3 toward increased student achievement.	Understands the: 1) CCSS ELA Science Literacy Standards, 2) the CCSS instructional shifts, 3) applicable state science standards, as well as, 4) NGSS crosscutting concepts: a) Patterns, and b) Cause and Effect: Mechanism and Explanation.
B. <u>Build Inquiry-oriented Text-Based Investigations</u> : SLs will be able to develop strategies and co-lead the development of student tasks that build literacy skills called for in the CCSS Science Literacy Standards.	Partners with STEM teacher to lead in the development of STEM curriculum with a focus on text-based investigations. Includes: Developing essential questions, building an informational text set for student close reading, creating text-dependent questions and designing student tasks focusing on students' ability to articulate text-based evidence and data in a STEM investigation, and synthesizing or presenting arguments to support the findings of the investigation.
C. <u>Co-Teach Inquiry-Focused Reading as a Means of Investigation</u> : SLs will be able to model instructional strategies to guide inquiry-focused reading for building content knowledge and science literacy.	Models the integration of inquiry-focused reading instruction to build content knowledge and literacy skills in the STEM classroom, the library, and across the school. Includes modeling teaching of: the structure of text, determining the accuracy and relevancy of information sources, guided reading through text-dependent questioning, student engagement with academic vocabulary, and the extraction of data and the production evidence from text sources.

III. Open Education Practices

Build a library environment (physical, digital, experiential) that advances a school culture of open education practice and advocate for the potential benefits of OER in the context of continuous improvement.

SL Learning Objectives	SL Performance Indicators
A. <u>Understand & Articulate the Uses and Benefits of OER</u> : SLs understand the role of OER for curriculum improvement, meeting local instructional goals, and building collaboratively created cross-disciplinary curriculum.	Develops expertise and models the use of open educational resources in peer collaboration, staff meetings and inservices. Contributes to the wider education community through newsletters, social media or other communication channels about experiences and benefits of open education practice and OER as a vehicle for continuous instructional improvement.
B. <u>Curate OER Collections</u> : SLs can discover and organize quality OER for teaching and learning on their campus.	Identifies sources of OER to support the school's curriculum, evaluating the resources against recognized quality indicators. Understands the value of OER Commons as a digital public library and platform for discovering and organizing OER. Curates and organizes a set of OER for use in STEM classrooms.
C. <u>Author Original OER</u> : SL can lead in the design and creation of high-quality OER.	Co-creates and co-evaluates OER with partner teachers. Understands the value of OER Commons as a universal platform for authoring, publishing, and sharing OER and is fluent in using it and guiding others to do so.
D. <u>Assess and Apply Open Licenses</u> : SLs can apply the correct use of open licenses when selecting and using, or authoring, resources for their library and school.	Guides teachers and students in the proper use of openly licensed content for their teaching and learning. Advises teachers and students in selecting appropriate open license to apply to works they author.

Teachers Advance the Above Learning Objectives for School Librarians Through:

I. Collaboration and Thought Partnership

- Working with school librarians to define collaboration roles, including which aspects of the lessons will be written and facilitated by the STEM teacher and which by the librarian
- Participating in conversations and regular meetings, and engaging around collaborative project ideas that are initiated by SLs and that meet the needs of the STEM classroom around inquiry and literacy
- Sharing and advocating about the project within their school and district, and in the wider education community, to demonstrate their own learnings and vision around elevating the collaborative role of the school librarian and STEM inquiry, through online discussions, newsletter, social media channels, and video.

II. Curriculum and Instruction

- Identifying which science standards and units are appropriate for learning through literacy lessons
- Breaking a science standard into individual student objectives to be covered over several lessons
- Providing insight into reading levels, emotional needs, grouping strategies and other learning needs of the students in their class(es)
- Accessing other specialists (Exceptional Student Case Managers, English as Second Language Teachers, etc) to provide assistance for diverse learners
- Co-creating the lesson(s) with the SL
- Co-planning and co-teaching the lesson(s) with the SL
- Sharing experiences and offering feedback to other project participants on their lessons and approaches

III. Open Education Practice

- Understanding the defining principles of OER and demonstrating collaborative use of OER Commons digital library and toolset to discover and organize resources for sharing with others
- Co-authoring and co-publishing open content for others to use and reuse
- Advocating for the potential benefits of open education practice and OER in terms of continuous instructional improvement with the school, district, and the wider educational community, through online discussions, newsletter, social media channels, and video.