Conference Strands & Review Criteria

Strands provide a foundation and context for proposals for the sessions convened at the 2024 NSTA National Conference on Science and STEM Education in New Orleans. The descriptions and examples below provide additional clarity about the strands and what will be prioritized when evaluating proposals for inclusion in the NSTA program. The list of examples is not meant to be all-inclusive.

Proposals that focus on strategies and ideas centering on diversity, equity, and inclusion will be prioritized as part of NSTA's strategic plan is to equip and empower all educators in providing access and opportunity for all students to be successful in science and STEM.

Strands and Review Criteria

Strand	Descriptions
STEM Haven	Proposals in this strand will focus on transdisciplinary learning (engaging students where disciplines converge to solve real-world problems). For learning to be considered *transdisciplinary*, it should focus on solving real-world problems using knowledge and skills from two or more disciplines (science, technology, engineering, math, humanities, arts, computer science). Proposals in this strand should share tools, strategies, and ideas where students apply knowledge and skills from multiple disciplines to create and innovate solutions. Priority will be given to proposals that do one or more of the following: • Offer learning opportunities driven by a specific problem where multiple disciplines are needed to develop a solution • Offer learning opportunities for students in contexts of societal relevance and student/community interest • Offer opportunities for student action and impact • Offer opportunities to integrate science and robotics, computer science, or artificial intelligence.
Tech Tools	Teaching is a passion, a calling, and a purpose; it can also be a source of stress and a heavy workload. Sessions in this strand focus on technology tools and strategies that, when implemented thoughtfully and emphatically, can positively impact student learning for all and/or provide support for teachers to reduce anxiety. Bring your tech tools to aid teachers in streamlining instruction, gathering, analyzing, and/or responding to data, managing the classroom or workday, tracking student data, increasing overall efficiency, and communicating with parents. This strand focuses on tech tools for teachers or students. Proposals focused on AI will be prioritized.
Students and Sensemaking	When students-as-scientists and engineers have authentic, relevant opportunities to actively make sense of the world and beyond- what we call sensemaking- science learning becomes engaging, accessible, and important to all students. Four attributes of sensemaking are phenomena, science and engineering practices, student ideas, and science ideas (grade-appropriate disciplinary core ideas). In this strand, we invite educators to share how they have integrated the pillar(s) of sensemaking into their practice. Particular emphasis will be placed on sessions that provide strategies for design or assessment using at least one of the pillars in combination with student work, student video, or specific examples of the strategy in the classroom and the impacts on student learning.
Curriculum and Assessment	Proposals in this strand should focus on improving science and STEM classroom teaching and learning through the use of high-quality instructional materials or assessments. These sessions should deepen the educator's knowledge base and instructional practice. Instructional materials/curriculum or assessment materials used as the context or as examples are required to be OER or open to all free of charge.
Research to Practice No more than 25% of proposals accepted will be chosen from this category	Proposals in this strand should focus on highlighting a specific research project, publication, or finding in education and how it can be implemented in the classroom. Proposals that use specific classroom examples or specific classroom strategies will be prioritized. In addition, proposals focused on supporting students in sharing their ideas will be prioritized. If your proposal cannot be strongly connected to any strand above, please choose this option. However, proposals connected to a strand will be prioritized.
No strand	If your proposal cannot be strongly connected to any strand above, please choose this option. However, proposals connected to a strand will be prioritized.

Review Criteria

The following key elements will be used by reviewers to evaluate session proposals.

- Alignment to conference strand.
- Degree of connection to the Framework, NGSS, state standards, or peer-reviewed contemporary research.
- Focus on equity or Science/STEM for all
- Use of specific classroom examples, student work, specific strategies, or specific projects
- Focused on current issues and has clearly defined takeaways for the attendee
- Well-written proposals that are concise, clear and organized

	Conference Strands
POSTER SESSIONS	STEM Haven Tech Tools Curriculum and Assessment Research to Practice
SPEED SHARING	STEM Haven Tech Tools Students and Sensemaking Curriculum and Assessment Research to Practice
30 MINUTE PRESENTATION	STEM Haven Tech Tools Students and Sensemaking Curriculum and Assessment Research to Practice
30 MINUTE ROUNDTABLE	STEM Haven Students and Sensemaking Curriculum and Assessment Research to Practice
60 MINUTE PRESENTATION	STEM Haven Tech Tools Students and Sensemaking Curriculum and Assessment Research to Practice
60 MINUTE WORKSHOP	STEM Haven Tech Tools Students and Sensemaking Curriculum and Assessment Research to Practice

NSTA Conference Reviewer • PROPOSAL RUBRIC

Directions: Please use the proposal rubric to rate the proposal from 1-3 for each of the evaluation criteria listed. Total the Score and Answer Q1 below. Clarity of writing and organization should be considered as part of the score in all sections.

	Rating Scale: 1 is the lowest rating with 3 being the highest			
Criteria	**1 · Not Acceptable**	**2 · Borderline**	**3 · Exceptional**	**Score**
Alignment to the conference strand.	The conference strand, theme, or focus area **is not** incorporated into the proposal.	The conference strand, theme, or focus area **is somewhat** incorporated into the proposal.	The conference strand, theme, or focus area **is clearly** incorporated into the proposal.	
Supports or identifies specific goals from the NRC Framework, NGSS, or state standards and the contemporary research connected to those standards.	The proposal provides no reference to or identifies specific goals from the NRC Framework, NGSS, or state standards. There is **no degree** of connection to these goals.	The proposal seems to build upon a specific goal from the NRC Framework, NGSS, or state standards and has **some degree** of connection to this goal(s). The connection can be **interpreted** rather than evidenced.	The proposal builds upon a specific goal from the NRC Framework, NGSS, or state standards **and** has a **high degree** of connection to this goal(s). One can **easily** see the connection to the Framework, NGSS, or state standards. The connection can be **evidenced**.	
The proposal is grounded in equity or Science/STEM for all.	The proposal provides **no** indication that the session is grounded in strategies, ideas, or guidance in providing science for all (equitable classroom practices, including all students in learning, inclusive environments, OR culturally relevant pedagogies).	The proposal **references** specific strategies, ideas, or guidance in providing science for all (equitable classroom practices, including all students in learning, inclusive environments, OR culturally relevant pedagogies). However, the description/abstract **does not** provide information about the extent to which the session will be grounded in these practices.	The proposal **has** specific strategies, ideas, or guidance in providing science for all (equitable classroom practices, including all students in learning, inclusive environments, OR culturally relevant pedagogies) **and** provides multiple examples of how these practices will be demonstrated or addressed in the session.	
The proposal engages session participants in classroom/ leadership examples or specific classroom/ leadership strategies OR includes examples of assessments (formative and summative), classroom lessons or units, or student work.	The proposal **does not** engage session participants through classroom examples or specific classroom strategies OR the proposal provides no examples of assessments (formative and summative), use of lessons or units, or student work in the session description/abstract.	The proposal **references** classroom examples or specific classroom strategies OR examples of assessments (formative and summative), use of lessons or units, or student work in the session description/abstract. However, the description or abstract **does not** provide information about the extent of use.	The proposal **provides** at least one example of how the proposed session will include classroom examples or specific classroom strategies OR examples of assessments (formative and summative), use of lessons or units, or student work. It **is clear** that the use of these/this example will be a large focus of the session/integral piece.	
The proposal addresses current issues/hot topics (as identified by you) that have clearly defined takeaways for the attendee	The proposal **does not** address current issues/hot topics (as identified by you) and/or **does not** have a clearly defined takeaway for attendees.	The **proposal addresses** a current issue/hot topic OR has a clearly defined takeaway for attendees but not both.	The proposal both addresses a current issue/hot topic **AND** has a clearly defined takeaway for attendees.	
The proposal is concise, clear, organized, and well-written.	The proposal contains **several** spelling, punctuation, and grammar errors	The proposal contains **minimal errors** in spelling, punctuation, and grammar	The proposal is **clear** and contains no noticeable spelling, punctuation, or grammar issues.	
			TOTAL	

Additional Resources: Sensemaking • Next Generation Science Standards (NGSS)