Strands and Review Criteria

Strands provide a foundation and context for proposals for the sessions convened at the 2026 NSTA National Conference on Science Education in Indianapolis. The descriptions and examples below provide additional clarity about the strands and what will be prioritized when evaluating proposals for inclusion in the NSTA conference program. The list of examples is not meant to be all-inclusive.

Strand	Description
Low-Prep, High-Impact Strategies for Science Teaching	This strand focuses on instructional strategies that deepen student understanding of core science ideas and practices while remaining feasible within typical classroom time, resource, and preparation constraints. Sessions highlight efficient instructional routines, adaptable lesson structures, and classroom-tested approaches that support rigor, differentiation, and student mastery without requiring extensive materials, technology, or out-of-class preparation. Participants will explore how to design and implement instruction that prioritizes sensemaking, productive student discourse, and evidence-based reasoning while reducing unnecessary workload. Emphasis is placed on strategies that are equitable, sustainable, and immediately usable across grade levels and instructional contexts. This strand is designed for classroom teachers, instructional coaches, and school leaders seeking practical, high-leverage approaches that improve student learning while supporting instructional efficiency and long-term sustainability. Session Acceptance Guidance Accepted proposals must clearly demonstrate **practical classroom relevance**, **instructional efficiency**, and/or **support for student sensemaking and durable skills** through low-prep, high-impact strategies. Reviewers will look for *(All criteria are not required for a high score.)* • Concrete examples of lessons, routines, or instructional workflows that are low-prep and high-impact • Clear identification of grade band(s), course context, and instructional setting • Evidence that strategies are feasible within typical time, resource, and preparation constraints • Demonstration of how the approach supports student sensemaking, discourse, or use of science practices • Explanation of how the strategy reduces planning time, materials management, or instructional overload • Attention to equity and access, including adaptability for diverse learners and contexts • Templates, protocols, lesson frames, or planning tools educators can reuse • Clear next steps for classroom or team-level implementation
Three-Dimensional Teaching, Curriculum, and Assessment	This strand focuses on the practical implementation of three-dimensional science teaching by strengthening coherence among curriculum, instruction, and assessment while building durable skills students need for long-term learning and application. As three-dimensional standards have been in place for several years, many educators are revisiting and refining their approach by strengthening coherence, clarifying assessment practices, and deepening understanding of how disciplinary core ideas, science and engineering practices, and crosscutting concepts work together to support student sensemaking. Sessions highlight classroom-ready approaches that support student thinking through intentional integration of the three dimensions. Participants will explore how to select, adapt, and implement high-quality instructional materials; design and use assessments that make student thinking visible; and translate research-based frameworks into sustainable classroom practice. Emphasis is placed on approaches that are instructionally useful, equitable, and realistic within typical classroom constraints, while strengthening durable skills such as reasoning, evidence-based explanation, and problem solving. This strand is designed for classroom teachers, instructional coaches, curriculum leaders, administrators, and higher education faculty seeking practical, coherent ways to refine and strengthen three-dimensional instruction and assessment and improve learning without increasing complexity or workload. Session Acceptance Guidance Accepted proposals must clearly demonstrate practical classroom relevance, coherence across curriculum, instruction, and assessment, and/or development of durable skills through three-dimensional learning. Proposals that support educators in refining, recalibrating, or strengthening implementation of three-dimensional teaching are especially encouraged. Reviewers Will Look For *(All criteria are not required for a high score.)* • Concrete examples of lessons, instructional routines, or assessment tasks aligned to three-dimensional learning • Clear identification of grade band(s), course context, and instructional setting • Evidence that approaches are feasible within typical time, resource, and curriculum constraints • Demonstration of how assessments capture student sensemaking and use of science and engineering practices • Explanation of how the approach improves instructional clarity, feedback, or decision-making • Alignment between instructional materials, learning goals, and assessment evidence • Templates, protocols, scoring tools, student work samples, or planning resources • Clear next steps for classroom, team, or curriculum-level implementation

AI, Data, and Technology Tools for Career-Connected Science	This strand focuses on how AI, data, and instructional technologies can strengthen STEM and career-connected science learning while building durable skills students need across postsecondary education, careers, and public service. Sessions highlight practical classroom applications that integrate science instruction with real-world tools and practices used in today's workforce. *Instructional technologies may include AI-supported planning and feedback tools, data analysis platforms, digital simulations, modeling software, GIS tools, lab sensor systems, industry-relevant engineering tools, and assessment technologies that directly support science teaching and learning.* This strand is designed for science teachers, administrators, CTE educators, counselors, and partners seeking realistic, high-quality ways to connect rigorous science instruction to career readiness while preparing students with transferable skills that remain valuable as technologies and industries evolve. Session Acceptance Guidance Accepted proposals must clearly demonstrate **practical classroom relevance**, **alignment to career-connected learning**, and/or **development of durable skills**. Reviewers Will Look For *(All criteria are not required for a high score.)* • Concrete examples of lessons, routines, or instructional workflows • Clear identification of grade band(s) and course context • Evidence that strategies are feasible within typical time, resource, and technology constraints • Demonstrate how AI or data tools streamline feedback, analysis, or instructional planning • Address how the approach saves time or improves instructional decision-making • Connect learning to fields such as manufacturing, logistics, health sciences, agriculture, IT, or engineering • Templates, protocols, examples, or planning tools • Clear next steps for classroom or program implementation
High-Quality Science Teaching for Multilingual Learners and All Students	This strand focuses on designing and delivering high-quality science instruction that intentionally supports multilingual learners while strengthening learning for all students. Sessions highlight classroom-tested approaches embedded within strong science curricula that leverage students' linguistic resources, promote collaborative sensemaking, and create meaningful opportunities for participation and idea sharing. Participants will explore how intentional instructional design, discourse routines, and curriculum-based supports foster language-rich science classrooms without lowering expectations or adding separate interventions. Emphasis is placed on practical strategies that increase access, deepen conceptual understanding, and strengthen students' confidence as capable science learners within real classroom constraints. This strand is designed for classroom teachers, instructional coaches, curriculum leaders, and administrators seeking concrete ways to improve access, engagement, and instructional clarity through inclusive science teaching that works for multilingual learners and benefits all students. Session Acceptance Guidance Accepted proposals must clearly demonstrate how high-quality science instruction intentionally supports multilingual learners through embedded design, discourse structures, or curriculum-aligned strategies. Proposals should emphasize asset-based approaches, strong conceptual learning, and practical classroom implementation rather than separate remediation or compliance models. Reviewers Will Look For *(All criteria are not required for a high score.)* • Concrete examples of lesson design, routines, or curriculum structures that support multilingual learners within core science instruction • Clear identification of grade band(s), course context, and student population • Evidence that strategies deepen science understanding while increasing access • Demonstration of how students' linguistic resources are leveraged as assets • Examples of collaborative sensemaking, discourse, and participation structures • Feasibility within typical classroom time and curriculum constraints • Video examples, student work samples, scaffolds, or planning tools • Clear next steps for classroom or school-level implementation

Connecting the Dots: Integrated Learning for Durable Skills	This strand focuses on designing integrated learning experiences that build durable skills through high-quality science and STEM instruction. Sessions explore how science learning connects meaningfully with mathematics, literacy, computer science, and career-connected contexts to support problem solving, reasoning, communication, and adaptability. Emphasis is placed on instructional coherence that helps students apply what they learn across subjects and real-world situations without sacrificing disciplinary depth. Participants will examine practical models for planning, teaching, and assessing integrated learning that strengthen transfer while remaining realistic within existing schedules, standards, and curriculum structures. Sessions highlight approaches that improve coherence, relevance, and student engagement without increasing instructional overload. This strand is designed for classroom teachers, instructional coaches, curriculum leaders, and administrators seeking concrete ways to build durable skills through intentional integration while maintaining clarity, rigor, and instructional focus. Session Acceptance Guidance Accepted proposals must clearly demonstrate **instructional coherence**, **cross-disciplinary connections that serve learning goals**, **and/or development of durable skills through integrated approaches**. Reviewers Will Look For *(All criteria are not required for a high score.)* • Concrete examples of integrated lessons, units, or instructional routines • Clear identification of grade band(s), course(s), and participating disciplines • Evidence that integration supports—not replaces—disciplinary learning goals • Explanation of how integration builds durable skills such as reasoning, communication, or problem solving • Attention to feasibility within typical schedules, pacing guides, and planning structures • Examples of assessment strategies that make transfer and skill development visible • Planning tools, templates, or collaboration protocols that support implementation • Clear next steps for classroom, team, or curriculum-level application
Supporting Science Educators: Building Capacity, Not Burnout	This strand focuses on strengthening the systems, supports, and professional conditions that allow educators to do high-quality work and remain in the profession over time. Sessions address mentoring and induction for new and transitioning teachers, effective professional learning communities, and leadership practices that shape daily instructional realities. Participants will explore practical, evidence-informed approaches to improving workload equity, collaboration, and professional trust moving beyond individual coping strategies toward shared responsibility and sustainable practice. Emphasis is placed on realistic models that build educator capacity, confidence, and long-term commitment without adding initiatives or expectations. This strand is designed for early-career educators, mentors, instructional coaches, school leaders, and district teams seeking concrete ways to strengthen professional support structures while improving teaching and learning conditions. Session Acceptance Guidance Accepted proposals must clearly demonstrate **practical relevance**, **system-level or team-based approaches**, and/or **measurable impact on educator capacity or retention**. Reviewers Will Look For *(All criteria are not required for a high score.)* • Concrete examples of mentoring, induction, PLC, or support structures in practice • Clear identification of educator audience(s) and professional context • Evidence that approaches are feasible within existing time, staffing, and resource constraints • Demonstration of how the strategy improves working conditions, collaboration, or instructional focus • Attention to equity in workload, access to support, and professional voice • Tools, protocols, structures, or planning resources participants can adapt • Clear next steps for school-, department-, or district-level implementation
Lesson Showcase	**This strand is exclusively for poster sessions.** An NSTA Lesson Showcase poster provides educators with a visual platform to share lesson plans or classroom activities. Designed as a collaborative "share-a-thon," these posters highlight successful strategies and resources, often showcasing the before, during, and after stages of a lesson to give attendees a comprehensive overview. Posters should include key lesson elements, supportive visuals to enhance understanding, and resources that enable others to implement the lesson or activity themselves. Presenters engage directly with attendees during dedicated exhibit hours in the expo hall.
No Strand	If your proposal cannot be strongly connected to any strand above, please choose this option

NSTA is seeking proposals for the following session types:

POSTER SESSIONS

- AI, Data, and Technology Tools for Career-Connected Science
- Three-Dimensional Teaching, Curriculum, and Assessment
- Low-Prep, High-Impact Strategies for Science Teaching
- Supporting Science Educators: Building Capacity, Not Burnout
- Connecting the Dots: Integrated Learning for Durable Skills
- Lesson Showcase

SPEED SHARING

- AI, Data, and Technology Tools for Career-Connected Science
- Three-Dimensional Teaching, Curriculum, and Assessment
- Low-Prep, High-Impact Strategies for Science Teaching
- Connecting the Dots: Integrated Learning for Durable Skills

30 MINUTE PRESENTATION

- AI, Data, and Technology Tools for Career-Connected Science
- Low-Prep, High-Impact Strategies for Science Teaching
- Supporting Science Educators: Building Capacity, Not Burnout
- Connecting the Dots: Integrated Learning for Durable Skills

30 MINUTE ROUNDTABLE

- AI, Data, and Technology Tools for Career-Connected Science
- Three-Dimensional Teaching, Curriculum, and Assessment
- Low-Prep, High-Impact Strategies for Science Teaching
- Supporting Science Educators: Building Capacity, Not Burnout
- Connecting the Dots: Integrated Learning for Durable Skills
- High-Quality Science Teaching for Multilingual Learners and All Students

60 MINUTE PRESENTATION

- AI, Data, and Technology Tools for Career-Connected Science
- Three-Dimensional Teaching, Curriculum, and Assessment
- Low-Prep, High-Impact Strategies for Science Teaching
- Supporting Science Educators: Building Capacity, Not Burnout
- Connecting the Dots: Integrated Learning for Durable Skills
- High-Quality Science Teaching for Multilingual Learners and All Students

60 MINUTE WORKSHOP

- AI, Data, and Technology Tools for Career-Connected Science
- Three-Dimensional Teaching, Curriculum, and Assessment
- Low-Prep, High-Impact Strategies for Science Teaching
- Supporting Science Educators: Building Capacity, Not Burnout
- Connecting the Dots: Integrated Learning for Durable Skills
- High-Quality Science Teaching for Multilingual Learners and All Students

120 MINUTE PROFESSIONAL LEARNING WORKSHOP

- High-Quality Science Teaching for Multilingual Learners and All Students
- Three-Dimensional Teaching, Curriculum, and Assessment
- Connecting the Dots: Integrated Learning for Durable Skills
- AI, Data, and Technology Tools for Career-Connected Science

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**
1. 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.	
2. 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**.	
3. 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.	
4. 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.	
5. 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.	
6. 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.	
Additional Resources: Sensemaking · Next Generation Science Standards (NGSS)			**TOTAL**	