Strategic Goals 2021

Building Georgia’s Next Generation of Science Education

Written by the 2020-2021 GSTA Board of Directors

www.georgiascienceteacher.org
## 2020-2021 Board of Directors

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## GSTA FAST FACTS:

- State Chapter of the National Science Teachers Association
- Non-profit, fully volunteer-run professional organization
- Members include K-12 teachers, pre-service teachers, higher education faculty, informal educators, & education leaders
- 24 Volunteer Board Members
- 12 Districts Covering Georgia
- 1400+ Active Members

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Introduction

The Georgia Science Teachers Association (GSTA) is committed to supporting excellence in science teaching for the students of Georgia. GSTA works to CONNECT, INFORM, SUPPORT, and ADVOCATE for science teachers in Georgia. We also seek to PARTNER with like-minded formal and informal science education organizations to further GSTA’s mission and goals.

GSTA’s guiding documents shape the organization’s work toward achieving this mission. The current strategic goals were developed by the 2020-2021 GSTA Board of Directors, based on input from the membership. These goals will frame the work of the organization over the next five years. We are pleased now to share these goals with our membership, and we invite you to continue to engage with the organization as we work to bring these goals to fruition.

The following strategic goals are based on the GSTA board’s recognition that excellent science teaching results from research-based best practices translated through the experience of expert teachers and connected to students’ diverse identities and interests. The research base from which to draw those best practices for the science classroom is presented in A Framework for K-12 Science Education and associated research. The Framework sets out a vision for three-dimensional science learning in which students engage simultaneously in science and engineering practices (e.g., developing and using models) while learning and applying core ideas (i.e., content standards) and crosscutting concepts (i.e., big ideas like matter and energy) as they explain real-world phenomena and solve authentic problems. This three-dimensional approach should be reflected in all aspects of curriculum, instruction, and assessment in Georgia’s science classrooms.

In order to continue to fulfill this vision for science education, Georgia’s teachers need resources, support, and professional learning. GSTA will play a key role in implementing and sustaining this vision over the coming years. This vision comes along at the same time as an intense focus on STEM careers and STEM education. GSTA will lead the effort to promote a vision of STEM education that recognizes and builds upon the central role of science in STEM learning and careers.
Strategic Goal 1: Membership

**CONNECT** Georgia science teachers to vibrant local and statewide professional networks that enhance their classroom practice and the value of their membership.

Professional growth happens best when teachers are supported by collegial networks of like-minded professionals. GSTA will provide value to Georgia science teachers and grow the organization’s membership by connecting members to active professional communities within GSTA districts and statewide that build on teachers’ interests, grade-level needs, and content expertise.

- Recognize excellence in science teaching through awards and grants.
- Develop services and resources that meet the unique needs of elementary, middle, and high school science teachers.
- Foster local professional networks through GSTA district events.
- Facilitate communication and collaboration through special-interest (grade-level, disciplinary, STEM, etc.) areas on the GSTA website and through targeted events during GSTA's annual conference.
- Leverage online social networks to enhance value to members, build awareness of the association, and foster collaboration among GSTA members and their colleagues.

GSTA membership districts, effective spring 2016
Strategic Goal 2: Professional Learning

*INFORM* GSTA members through a variety of professional learning opportunities that enhance access to current, research-based practices for teachers at all levels, for all disciplines, and in all settings (face to face and virtual) across Georgia.

GSTA professional learning will provide members with resources and programs, both in person and through virtual programs, that actively engage all members of the GSTA community in continuous professional growth, designed to increase the success of all students in science. Through an environment of collegiality and collaboration, all GSTA members will have opportunities to increase knowledge, improve performance, and enhance professional satisfaction.

- Provide the premier science professional learning experience in Georgia through the annual conference and mini-conferences throughout the year.
- Develop virtual workshops and professional development opportunities to extend the reach of the GSTA conference.
- Increase statewide access to and communication about professional learning through face-to-face district events and by increasing the number of those events that include virtual access.
- Develop GSTA branded professional learning opportunities available online to members.
- Utilize professional training, experience, and skills of the membership, Board members, and previous Board members for professional development.

*Zoo Atlanta Session During an Online GSTA Mini-Conference*
Strategic Goal 3: Professional Resources

**SUPPORT GSTA members through professional resources that help teachers improve their practice, the academic lives of their students, and their school communities.**

In the ever-changing world of science education, it is vital that teachers stay up to date with instructional resources and materials that will enable them to provide the best education to their students. Two key factors make it increasingly difficult for teachers to find and vet resources that are of high quality and appropriate for their students and learning goals. These include a move toward digital resources, which places a greater onus upon teachers to filter through a large number of unvetted resources to make ongoing curriculum decisions. Another factor is that Georgia’s teacher-driven, state-specific standards require great care as teachers adopt and adapt instructional materials designed for other standards. The result is a void of high-quality, vetted resources that support mastery of Georgia’s science standards within the specific contexts of classrooms across our state. GSTA must take the lead in filling the gap by creating, hosting, and disseminating professional resources that meet the particular needs of Georgia’s science teachers and students.

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**Science GSE Phenomena Bank**

<table>
<thead>
<tr>
<th>Search Phenomena</th>
<th>Submit Phenomena</th>
<th>What's the big deal about phenomenon?</th>
<th>What makes a good phenomenon?</th>
<th>Phenomenal Resources</th>
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One of the top requests from teachers as they implement the science GSE has been for a bank of phenomena ideas aligned to the standards. So, we are building such a collection. You can browse or search that collection below. You can also use the buttons above to submit your own phenomena ideas and learn more about phenomena and their role in 3D science learning. Email communications@georgiascienceteacher.org if you have any questions about this resource.

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**What's That Sound?**

Students will hear a sound clip of a clicking insect noise.

Possible Guiding Question(s): What is this sound? What makes this sound and why?

Possible Instructional Use(s): This is an engaging introduction to interactions of organisms with one another and their environments.

**What can we learn from tracking marine organisms?**

CCARM1 is an organisation that tracks a variety of marine organisms including sharks, sea turtles, whales, and dolphins. Students are able to track the data over a period of time. In this phenomenon, students construct an investigative question and design an investigation to answer their question.

Possible Guiding Question(s): Why do we track marine organisms?

Possible Instructional Use(s): Show the students the CCARM1 site and ask them after they notice what do you wonder? Review the features of the site before tracking with students. What do they want to learn about next? This lesson should move them towards...

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GSTA’s **Phenomena Bank**
Strategic Goal 4: Advocacy

**ADVOCATE** for excellent science education in Georgia on behalf of teachers and students and encourage our members to raise their own voices in support of excellent science education for all students in our state.

While the STEM movement is bringing important attention to science education at all levels, other social and political forces are working to undermine the importance of science and science education in our society. To support excellent science teaching for all students in Georgia, GSTA and our members must advocate for the importance of science, science education, and the science teaching profession at local, state, and national levels. GSTA must work to support the central role of science in STEM education, along with approaches to science curricula, instruction, and assessment that are based on research and best practices and that engage all students, including traditionally underrepresented student populations, in authentic science learning.

- Engage and support GSTA members and other science educators in advocating at the local, state, and national levels.
- Position GSTA as a resource representing science teachers’ perspectives to relevant state policy makers.
- Promote a positive image of science, science education, and the science teaching profession among other stakeholders.

*GSTA board members with State Superintendent Richard Woods during 2020 Annual GSTA Conference*
Strategic Goal 5: Community Outreach

**PARTNER with informal science education stakeholders to facilitate science literacy opportunities for learners of all ages in real-world communities.**

Participation in science experiences and opportunities in the home and community promotes lifelong learning and a scientifically literate society. Students that come to school with exposure to and acceptance of science concepts through immersion in science experiences at home and in the community are better prepared to learn in the science classroom. GSTA will partner with formal and informal science education organizations to support science learning in all settings. Some examples of informal science learning opportunities are museums, nature centers, science festivals, competitions, camps, science cafes, community science activities and more.

- Create and maintain a statewide informal science asset map and database to support teachers in making classroom-to-community learning connections.
- Seek local and statewide partnerships with informal science education organizations to further GSTA’s mission and goals.

*Georgia STEM/STEAM Asset Map - This will serve as a model for GSTA’s informal science resource map.*