STEM and STEAM Education in Georgia

The Georgia Department of Education is dedicated to preparing students for 21st Century careers by providing high quality educational opportunities in science, technology, engineering, arts, and mathematics fields. In Georgia, STEM and STEAM education is defined as an integrated curriculum that is driven by exploratory project-based learning and student-centered development of ideas and solutions.



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www.stemgeorgia.org

The Georgia Department of Education does not discriminate on the basis of race, color, religion, sex, national origin, age, or disability in its programs, activities, or employment practices.





Supporting and promoting STEM and STEAM education in Georgia

Science, Technology, Engineering, Arts, and Mathematics





STEM or STEAM Certification

Georgia schools or programs may apply for state STEM or STEAM certification. Applications, requirements, and a list of current certified schools are available online at <u>www.stemgeorgia.org</u>. Certified schools or programs may reapply for certification once every five years.

The Georgia STEM Forum

The Georgia Department of Education's premier STEM and STEAM conference is held annually in October in Athens, GA. Information regarding registration, session proposals, and exhibitor opportunities will be available by May 1st.

Characteristics of STEM and STEAM Schools

Project- and problem-based learning

Students must be able to apply content from multiple disciplines to answer complex questions and develop solutions to real world problems.Teacher takes on the role of facilitator in the classroom.





Integrated Math, Science, CTAE, and for STEAM, Fine Arts Instruction

Students are able to analyze and articulate interdisciplinary connections that exist within math, science, CTAE, and fine arts content.

Strong business, college, community partners

Partners are involved in development of curriculum and assist making connections between classroom teaching and learning and business and industry applications.





Students conduct investigative research

Students identify and support claims related to a complex question or real-world problem by supplying relevant data as evidence.

Collaborative Planning Time

Time must be allocated for teachers to work collaboratively to plan purposeful, meaningful, and intentional interdisciplinary lessons.



STEM/STEAM for ALL Students



STEM Georgia Teachers Academies

The STEM Georgia Teachers Academies, held each summer, are designed to develop the tools K-12 teachers need to engage students in a STEM or STEAM curriculum.



21st Century Skills- 4C's Communication

Creativity

Critical Thinking

Collaboration

Embedded in the learning

process

Application of Academics Mathematics Science CTAE Fine Arts (for STEAM) Interdisciplinary Approach





Georgia Department of Education CAREER, TECHNICAL, AND AGRICULTURAL EDUCATION Students are exposed to job specific skills valued by employers. Career exposure through real word problem solving is a big part of

STEM/STEAM education.