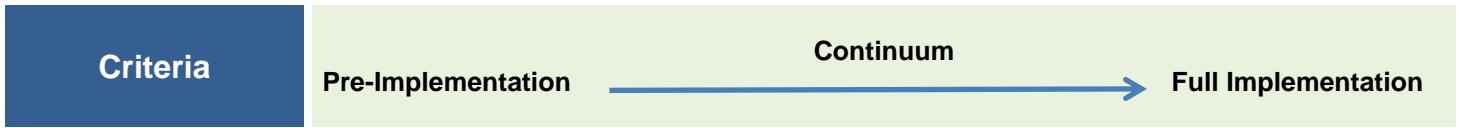
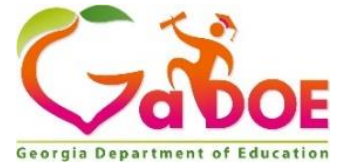


Georgia Department of Education: STEAM Certification for High School



1. STEAM Vision and Culture	No vision for STEAM education is in place and a STEAM culture is not evident in the school.	→	The vision for STEAM is clearly defined and an arts and design- focused culture has been established within the school. Students articulate and live this vision and culture through their actions, passions, and perceptions.
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Required

- The STEAM vision for the program is written. Fine arts* are included in the vision for the program.
*Note- In Georgia, “Fine arts” is defined as Dance, Media Arts, Music, Theatre, and Visual Arts. Schools are not required to implement all five areas, but must utilize Georgia Standards of Excellence for selected areas.
- High schools can choose between a whole-school model or program only certification. Program Certification is a school-within-a-school model, must be at least 10% of the school population, and represent the demographics of the student body. STEAM Program Certification cannot be a program exclusively for gifted and magnet students.
- The school provides evidence that a STEAM culture has been established. Schools will decide how to showcase the STEAM culture.

2. Required for program certification: Identified STEAM Students	No students are identified as STEAM.	STEAM students are identified, and a selection process is described.	STEAM students are identified by a school designed selection process that has been vetted with successful longitudinal evidence.
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Required

- Documentation of how students are selected based upon specific criteria such as interest, lottery, random selection, etc.
- A copy of the STEAM application for student entrance into the STEAM program.

3. Non-Traditional Student Participation (Not applicable for whole school certification)	The non-traditional student participation does not reflect the diversity (gender, race, ethnicity, and special populations) of the student population.	A plan is being developed for outreach, support, and focus on non-traditional student populations.	A plan is in place for outreach, support, and focus on non-traditional student populations.	The non-traditional student participation reflects the diversity of the school in terms of gender, race, ethnicity, special populations, and academic levels.
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Required

Documentation of [non-traditional student participation](#).

<h3>4. Characteristics of the STEAM Curriculum</h3>	<p>There is no plan for a unique and explicit curriculum in the program or school that is tied to specified CTAE pathways and utilizes arts-integrated instruction.</p>	<p>A plan is being developed for an explicit and unique curriculum that is tied to specified CTAE pathways. An arts-integrated STEAM curriculum is currently implemented only in some areas of the school.</p>	<p>Students are regularly exposed to a unique and explicit arts-integrated curriculum that is tied to specified CTAE pathways and there is evidence of its sustainability (three plus years) in the program or whole school.</p>
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Required

Written description of the unique characteristics of the STEAM curriculum, which must include CTAE courses and fine arts courses that support the STEAM curriculum.

Example Artifacts

Documented opportunities for:

- arts-based research student presentations of investigations and findings.
- students to engage in regular “arguments from evidence” during classroom instruction
- students to interact with STEAM professionals and community partners to support curriculum
- students to participate in [Career Technical Student Organizations](#) (CTSO’s example: FFA, TSA...) and fine arts student organizations

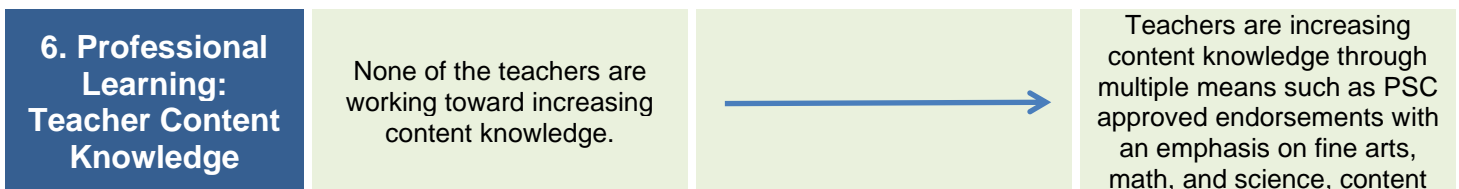
<h3>5. Student Rigor & Relevance and Instructional Quality</h3>	<p>Most of the learning occurs at the acquisition level. Content knowledge is taught in a silo by discipline and instruction focuses on knowledge awareness and comprehension of information. Classroom instruction is predominantly teacher centered.</p>	<p>Most of the learning occurs at the acquisition and application levels. Classroom instruction is predominantly teacher centered. Work shows students designing solutions to problems centered on a single discipline at a time by applying knowledge to new situations.</p>	<p>Most of the learning occurs at the assimilation levels. Classroom instruction is predominantly student centered and students extend and refine their acquired knowledge to routinely analyze and solve problems, as well as create unique solutions.</p>	<p>Learning occurs at the adaption level on a regular basis. <i>Classroom instruction is predominantly student centered</i> and students have the competence to think in complex ways and apply the knowledge and skills they have acquired. When confronted with perplexing unknowns, students create solutions and take action that further develops their skills and knowledge.</p>
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Required

Submission of at least two examples of student work that has occurred at the Adaptation level of the [Rigor and Relevance Framework](#)

Example Artifacts

Project examples that demonstrate culture of inquiry, creativity, and innovation exists among students, teachers, and administrators.



collaboration with business/ industry, post-secondary, and informal education partners, and [externships](#).

Required

- Documentation of method/ procedures for increasing content knowledge for all teachers.
- Documentation of the plan for sustaining content knowledge and induction of new teachers including the fine arts teachers.
- Documentation of method/ procedures for increasing the fine arts teachers content knowledge.
- All educators receive fine arts specific professional development in order to support arts integration in all classrooms.

7. Professional Learning: Instructional Practices

There is no STEAM or arts integration related professional development currently planned and none has been offered in the last year.

Teachers, instructional coaches, and administrators attended at least one STEAM or arts integration professional learning event.

Teachers, instructional coaches, and administrators have on-going STEAM and arts integration specific professional learning and there is evidence of its implementation in classroom instruction.

Teachers, instructional coaches, and administrators have on-going STEAM learning and STEAM and arts integrated specific strategies relating to the school's identified STEAM focus area. There is evidence of implementation in classroom instruction.

Required

Documentation of STEAM specific professional learning for all teachers, instructional coaches, and administrators that incorporates the following:

- Project/problem/place-based learning
- Interdisciplinary instruction
- Investigative research-based practices
- Collaborative planning practices
- 21st Century thinking skills and school-wide use of process-based thinking (Example: Engineering Design Process, Design Thinking, etc)
- Arts integration

Documentation of visits to other STEAM Certified Schools including the school staff that visited and the school location of the visit.

Example Artifacts

Documentation of teacher and administrator participation in district, GADOE, and national STEAM professional learning. Examples: GA Department of Education STEAM/ STEAM Teacher Academies, GA Department of Education STEAM / STEAM Forum, GA Department of Education STEAM/ STEAM Leadership Cohort

8. Teacher Collaboration

There is no collaboration or collaboration is not structured or planned.

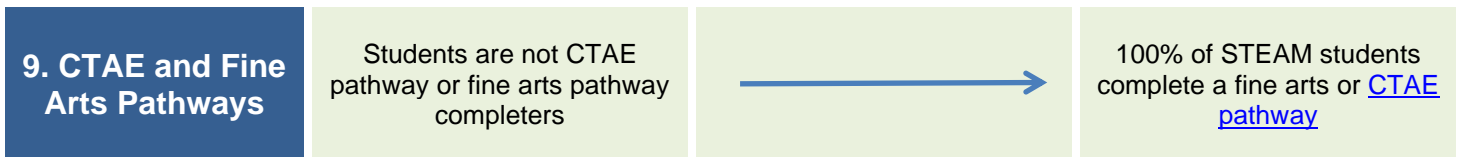
Teachers collaborate quarterly using Georgia Standards of Excellence to identify learning targets, plan interdisciplinary units, and day-to-day instruction that use process-based thinking.

Teachers collaborate monthly using Georgia Standards of Excellence to identify learning targets, plan interdisciplinary units, and day-to-day instruction that use process-based thinking.

Teachers collaborate at least weekly using Georgia Standards of Excellence to identify learning targets, plan interdisciplinary units, and day-to-day instruction that use process-based thinking.

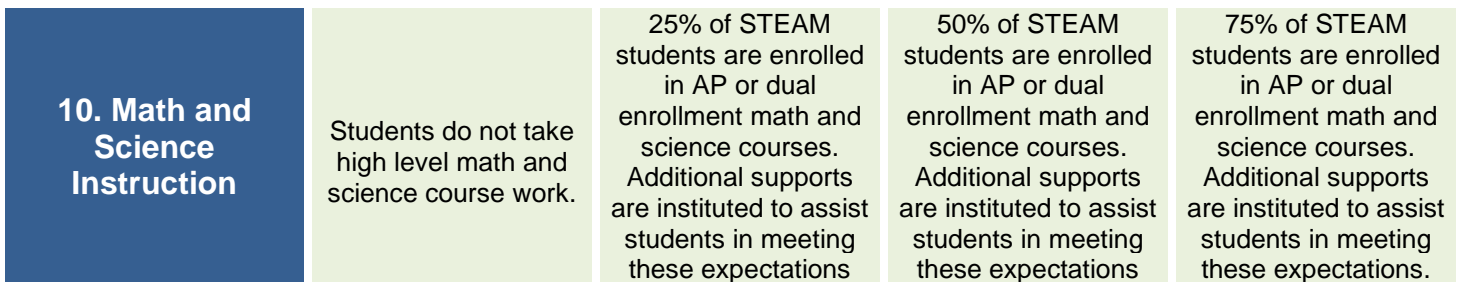
Required

- The school administration must provide collaborative planning time at a minimum of once a week.
- Business and community partners participate in teacher planning. This should also include arts or design partners.
- CTAE teachers and fine arts teachers are involved in collaborative planning time on a regular basis.
- Documented evidence of weekly STEAM collaborative planning time including meeting agendas /minutes and artifacts generated.
- Georgia Standards of Excellence, including Fine Arts standards, are used to create lessons during collaborative planning.



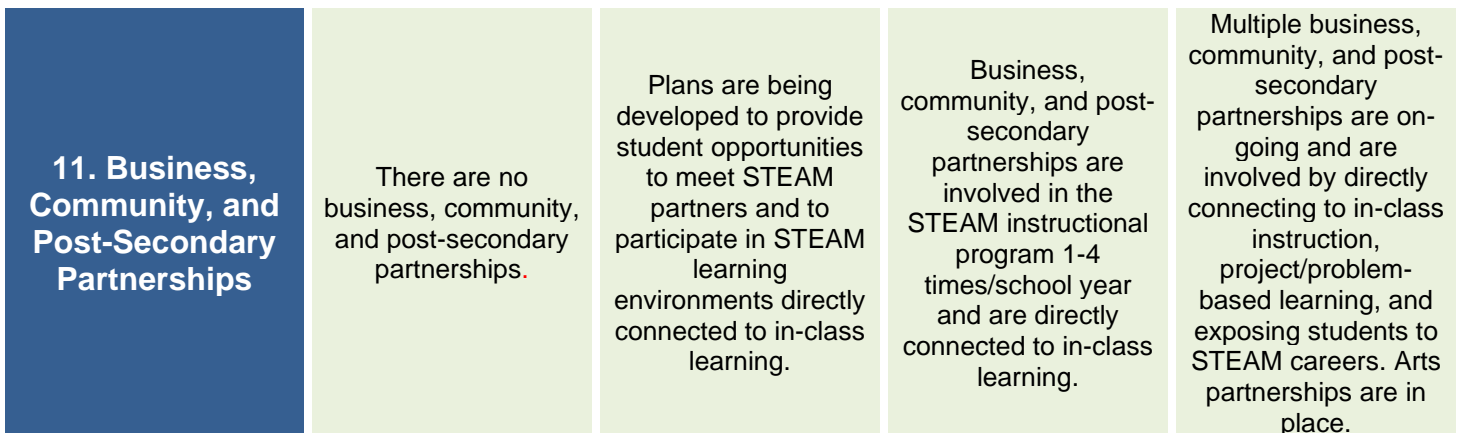
Required

- Documentation of the number of students completing and working on a specific CTAE pathway
- School must document work with your district CTAE director and Fine Arts director



Required

Documentation of the number of students enrolled and passing AP and/or dual enrollment math and science courses.



Required

- Documentation partnership involvement at all three levels based upon the [STEAM Georgia Partnership Involvement Levels](#).
- Documentation of partnerships with local artist, arts organizations, [teaching artists](#), or professionals who utilize arts and design in their work.

<p>12. STEAM Competitions, Exhibits, Clubs, and/or Career Technical Student Organizations (CTSOs)</p>	<p>No students are involved in STEAM competitions, arts organizations, arts exhibits or performances, STEAM exhibits, CTSOs, and/or in state and national STEAM forums or clubs.</p>	<p>Some of the students participate in STEAM competitions, arts organizations, arts exhibits or performances, STEAM exhibits, CTSOs, and/or in state and national STEAM forums or clubs.</p>	<p>A majority of the students participate in STEAM competitions, arts organizations, arts exhibits or performances, STEAM exhibits, CTSOs, and/or in state and national STEAM forums or clubs. Students utilize arts and design skills as tools to solve problems, articulate solutions, and to positively impact their local community.</p>
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Required

Documentation that shows how many students participate in STEAM competition, fine arts student organizations, exhibits, club, or CTSOs.

<p>13. STEAM Curriculum: Project/Problem-Based Learning</p>	<p>Students are not engaged in solving authentic, real-world problems.</p>	<p>Students are engaged in solving authentic, real-world problems, but they are not tied to the local community.</p>	<p>Long-term projects/problems are implemented throughout the school year that are standards-based, interdisciplinary, and engage students with real-world problems in their community.</p>
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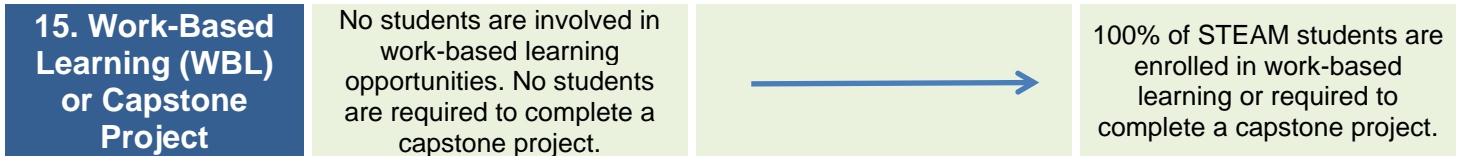
Required

- Students can articulate the relationship between math, science, and arts concepts in their interdisciplinary projects.
- Written summary of grade level specific, interdisciplinary, problem/project-based learning opportunities that have occurred throughout the school year (curriculum map, timeline, calendar, etc).
- Documentation of how project and problem-based learning connects to Georgia Standards of Excellence.
- Students have documentation of long-term project-based learning in their STEAM journals. This documentation includes the use of a school-wide process-based thinking.
- Student work created in collaboration with a business/community/post-secondary partner. Partners provide coaching and feedback throughout the project.

<p>14. STEAM Curriculum: Day-to-Day Interdisciplinary Instruction</p>	<p>Content areas are taught in isolation. STEAM instruction has replaced fine arts instruction.</p>	<p>Students are engaged in interdisciplinary instruction 1-3 times a month.</p>	<p>Students are engaged in interdisciplinary instruction 1-3 times a week.</p>	<p>Students are engaged in daily interdisciplinary instruction that supports Georgia Standards of Excellence mastery. Students receive fine-arts specific instruction in addition to the arts-integrated STEAM Curriculum.</p>
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Required

- Students can clearly articulate an understanding of connections between math, science, and arts concepts from grade-level Georgia Standards of Excellence and provide evidence of learning using their STEAM journals.
- If applicable, teachers review district pacing guides to determine connection between disciplines and standards.

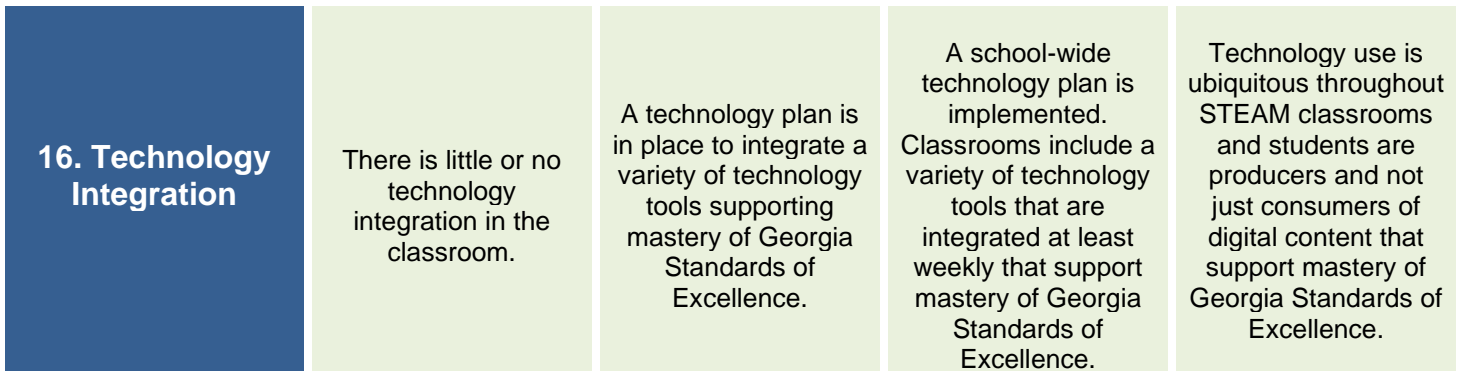


Required

- Submission of at least two examples of student work as a result of work-based learning or two examples of a capstone project

Example Artifacts

- Work-based learning opportunities in a STEM field
- Portfolio can be used to document work-based learning or a capstone project

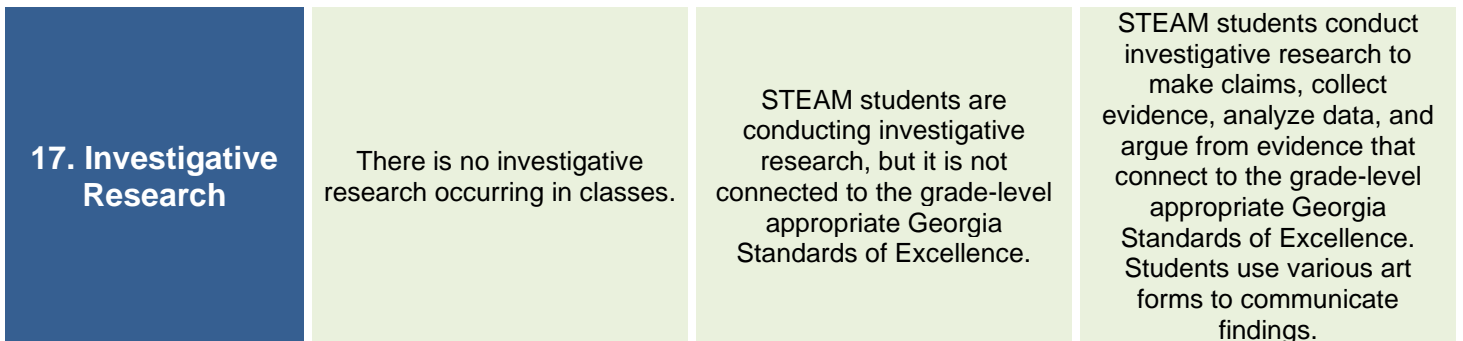


Required

- Submission of at least two student-produced products using technology.

Example Artifacts

- Students are regular producers of websites, blogs, computer programs, videos, classroom digital products, apps etc. Additional emphasis should be added to arts and design concepts driven by Fine Arts Georgia Standards of Excellence.
- Instructional technology equipment is rarely inoperable
- Teachers and students receive on-going access and opportunity to expand their proficiency in technology use



Required

- Students can communicate results via written, oral, and digital presentations.
- Submission of at least two student investigative research topics and their findings.

Example Artifacts

- Documentation of student analysis and data interpretation, explanations and design solutions, and engagement in argument from evidence
- Documentation of student use of Claim-Evidence-Reasoning model.
- Documentation of how investigative research is used to improve student solutions in both day-to-day instruction and long-term project.

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High School STEAM Certification Continuum

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- Students present findings to a public audience that includes business and community partners
- Student research is posted in hallways and classroom walls

<p>18. STEAM Journals</p>	<p>Students do not use written journals to document</p>	<p>STEAM journals are being used in some, but not all grade levels or are not used consistently</p>	<p>Students document long-term projects-based learning, day - to-day interdisciplinary learning, and investigative research in STEAM journals. Digital portfolios may document student products; however, written journals are in place to demonstrate written student reflections and project ownership. Evidence of fine arts concepts and standards is present in journals.</p>
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Required

- Students utilize school-identified problem-solving process (i.e. Engineering Design Process, Design Thinking, or school-created version) or Claim, Evidence, Reasoning framework. This is guided by teacher to ensure standards mastery.
- Submission of at least two examples of student journal use
- Documentation of how teachers plan for student journal usage during weekly collaboration

<p>19. Accountability / Sustainability</p>	<p>There is no evidence or plan in place to sustain the STEAM culture.</p>		<p>Schools determine the evidence that students are increasing in academic growth. There is a plan in place to sustain the STEAM culture.</p>
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Required

- Schools indicate evidence the STEAM curriculum is increasing student academic growth over a three-year period through The Georgia Milestone Assessment, CCRPI.
- Schools submit a plan to indicate how they will continue to grow and sustain STEAM culture.