21st Century
Science, Technology, Engineering, and Mathematics
(STEM) Labs

GEORGIA
DEPARTMENT OF
EDUCATION
Kathy Cox, State Superintendent of Schools
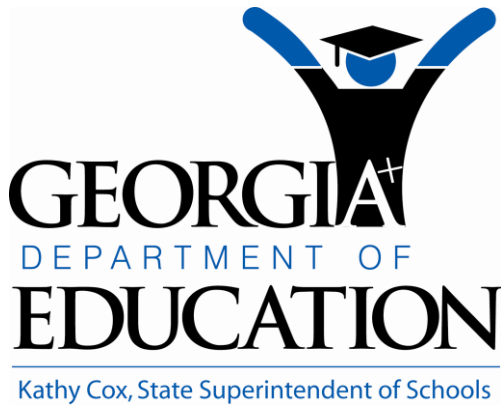
Grant Rubric

Title II, Part D:
Enhancing Education
Through Technology — ARRA
(Ed Tech)
Competitive Grants
CFDA 84.386A

Georgia Department of Education
Office of Technology Services

Proposal Format (10 points)

Section A: Project Personnel (15 points)
Section B: Critical Academic Needs in a Core Area (10 points)
Section C: Critical Technology and STEM Lab Needs (10 points)
Section D: Current Instructional Context and Needs Assessment (10 points)
Section E: System Support for Grant (10 points)
Section F: Local Implementation Plan (30 points)
Section G: Evaluation Plan (10 points)
Section H: Dissemination Plan (10 points)

Overall Quality of Proposal (10 points)

PROPOSAL FORMAT (10 POINTS)

Characteristics of high-quality proposals meeting both the purpose and outcomes of the grant:

☐ Document has the correct name format – AbcCo_XyzHS_STEM.

☐ All components contained in **ONE AND ONLY ONE** PDF document.

☐ Narrative consists of no more than 20 pages.

☐ Document begins with the cover sheet (Appendix B).

☐ Each page contains a header with the following information:
- Name of the grant
- District name
- School name

☐ Each page contains a footer with the following information:
- Page number
- Date

☐ The narrative uses Times New Roman font.

☐ The narrative uses font size 10.

☐ Document is single-spaced.

☐ Each section of the grant narrative is clearly labeled/identified.

☐ Document also contains the following signed Appendices:
- Appendix C – Assurances Form
- Appendix D – Private School Consultation Form
- Appendix F – ETC/RESA Agreement
- Appendix H – System Letter of Commitment containing the signatures of all team members

No Characteristics Present	Fewer than 1/2 of Characteristics Present	1/2 of Characteristics Present	More than 1/2 of Characteristics Present	All of Characteristics Present	Exceeds Stated Characteristics
0	1	2	3	4	5

Comments: (Required)

RAW SCORE x 2 : _____

SECTION A: PROJECT PERSONNEL (15 POINTS)

Characteristics of high-quality proposals meeting both the purpose and outcomes of the grant:

☐ Provides evidence of a STEM Lab Grant Governance Board, including at a minimum each of the following:
- grant school administrators,
- CTAE Director,
- grant teachers (CTAE, mathematics, and science),
- post secondary instructors,
- STEM industry representatives,
- LEA IT coordinator.

☐ Provides evidence that all of the above Governance Board members have knowledge of the grant application, grant purpose, and outcomes (team members are engaged in the grant plan and share the grant outcomes and responsibilities, Letter of Commitment signed by all members, etc.).

☐ Documents qualifications of the grant teacher(s) to support student use of the technology to achieve grant outcomes.

☐ Documents the background/experience of the district IT coordinator to support grant outcomes.

☐ Documents the background of the school administrator in the area of school improvement and educational leadership.

☐ Provides evidence of past successes that can be attributed to proposed project personnel, especially in the areas of teacher collaboration, delivery of STEM instruction, and creation of inquiry-based projects.

Provides no description of team qualifications	Provides minimal description of team qualifications	Broadly describes team qualifications	Specifically describes team qualifications	Specifically describes team personnel qualifications and provides some details on key achievements	Specifically describes team personnel qualifications and provides explicit details and examples of key achievements
0	1	2	3	4	5

Comments: (Required)

RAW SCORE x 3: _____

SECTION B: CRITICAL ACADEMIC NEEDS IN A CORE AREA (10 POINTS)

Characteristics of high-quality proposals meeting both the purpose and outcomes of the grant:

☐ Clearly defines and documents in table format (table may be attached as an additional appendix so as not to count toward the 20-page limit) the need in core STEM academic area(s) using well-established data sources and trend data over time.

☐ Documents STEM related academic needs that are "critical" (below state averages, keeping schools from making adequate yearly progress, or keeping schools on "needs improvement" lists).

☐ Documents academic needs in terms consistent with Georgia's Performance Standards.

Provides no description of current instructional needs context and no demographic or score data	Provides minimal description of current instructional needs and minimal demographic and score data	Broadly describes current instructional needs but provides no detail or specifics and minimal demographic and score data	Specifically describes current instructional needs and demographic data but provides no score data	Specifically describes current instructional needs and provides some details on demographic data and score data	Specifically describes current instructional needs and provides explicit details on demographic data and score data
0	1	2	3	4	5

Comments: (Required)

RAW SCORE x 2: _____

SECTION C: CRITICAL TECHNOLOGY AND STEM LAB NEEDS (10 POINTS)

Characteristics of high-quality proposals meeting both the purpose and outcomes of the grant:

☐ Describes the school's need for increasing STEM education opportunities.

☐ Describes the school's need for improving 21st century skills and technology literacy.

☐ Describes how the school can leverage the STEM Lab to increase mathematics, science, 21st century skills, technology literacy, and CTAE scores.

☐ Describes the school's need for increasing student access to STEM Lab equipment.

☐ Describes the school's infrastructure needs in relation to the recommended infrastructure specifications listed in Appendix A.

☐ Provides a table (table may be attached as an additional appendix so as not to count toward the 20-page limit) outlining the school/LEA's technology budgets and expenditures over the past three years to show the need for increased technology funding.

Provides no documentation of critical technology needs	Provides minimal documentation of critical technology needs	Broadly states critical technology needs but provides no detail or specifics	Specifically describes critical technology needs but provides no detail or specifics	Specifically describes critical technology needs and provides some funding details	Specifically describes critical technology needs and provides a detailed documentation of funding and technology status
0	1	2	3	4	5

Comments: (Required)

RAW SCORE x 2: _____

SECTION D: CURRENT INSTRUCTIONAL CONTEXT AND NEEDS ASSESSMENT (10 POINTS)

Characteristics of high-quality proposals meeting both the purpose and outcomes of the grant:

☐ Describes the current instructional context of science, technology, mathematics, and CTAE courses.

☐ Compares the current instructional context of these courses to the future goals and vision for the inclusion of technology infused, interdisciplinary, inquiry-based STEM Lab projects in these courses.

☐ Describes how the teachers will
- collaborate,
- leverage the STEM Grant Governance Board to create technology infused, interdisciplinary, inquiry-based real-world problem solving STEM projects,
- increase student engagement in STEM projects,
- increase student interest in STEM studies,
- increase student understanding of STEM-related careers to include engineering, and
- increase student 21st century and technology literacy skills.

☐ Describes how this grant will help the grant teachers move toward their instructional goals.

☐ Describes teacher(s)'s current instructional practices and STEM content knowledge.

☐ Describes how this grant will help teachers prepare students to enter STEM-related postsecondary courses or STEM-related careers.

☐ Documents a commitment by the applicant to address specific learning goals, the Georgia Performance Standards, NETS-S, and authentic, engaging instruction for their students.

☐ Provides evidence that grant goals are aligned to the school/LEA's school improvement plan.

☐ Provides evidence that the School/LEA has aligned the grant goals to the Georgia Department of Education *Keys to Quality: Unlocking Continuous Improvement* resources.

Provides no description of current instructional context and no assessment of needs	Provides limited description of current instructional context and no assessment of needs	Provides limited description of current instructional context and limited assessment of needs	Provides a description of current instructional context and an assessment of needs, but includes no details on how they will help teachers move toward their instructional goals	Provides a description of current instructional context, an assessment of needs, includes details on how they will help teachers move toward their instructional goals, documents a commitment to address specific learning goals, the GPS, NETS-S, and authentic, engaging instruction for their students, but includes no evidence of alignment to the school/LEA's improvement plan and *Keys to Quality*	Provides a description of current instructional context, an assessment of needs, includes details on how they will help teachers move toward their instructional goals, documents a commitment to address specific learning goals, the GPS, NETS-S, and authentic, engaging instruction for their students, and includes evidence of alignment to the school/LEA's improvement plan and *Keys to Quality*
0	1	2	3	4	5

Comments: (Required)

RAW SCORE x 2 : _____

SECTION E: SYSTEM SUPPORT FOR GRANT (10 POINTS)

Characteristics of high-quality proposals meeting both the purpose and outcomes of the grant:

☐ Documents the willingness and ability of project staff, administrators, and teachers to engage in this type of instructional change and technology deployment.

☐ School/LEA describes specific system supports that are currently in place to assist them in fully implementing the grant and/or what types of system supports they will enact to support the grant teachers and the grant program.

☐ Documents the creation of a STEM Grant Governance Board.

☐ Describes how the STEM Grant Governance Board will plan the technology infused, interdisciplinary, inquiry-based STEM projects, provide support to teachers and students, monitor implementation, conduct periodic data analysis of student assessments, plan for sustainability, and plan community marketing and communication of the importance of STEM.

☐ Describes actions the LEA will take to maintain implementation of the processes and strategies that positively impact student achievement.

☐ Addresses LEA support (e.g., policies, professional learning opportunities, protected time, etc.) for the actions and strategies that positively impact student achievement.

☐ Identifies plan for retaining human, material, and financial resources after the funding period ends.

☐ Describes how the School/LEA will provide the necessary infrastructure and electrical wiring for any required technology.

☐ Optional: discussion of in-kind contributions and/or internships.

Provides no documentation of system support for grant	Provides minimal documentation of system support for grant	Broadly states system support for grant but provides no detail on STEM Grant Governance Board plans	Specifically describes system support for grant, and provides some detail on STEM Grant Governance Board plans	Specifically describes system support for grant, provides specific, detailed STEM Grant Governance Board plans, but does not identify plan for retaining human, material, and financial resources after the funding period ends.	Specifically describes system support for grant, provides specific, detailed STEM Grant Governance Board plans, and identifies plan for retaining human, material, and financial resources after the funding period ends.
0	1	2	3	4	5

Comments: (Required)

RAW SCORE x 2: _____

SECTION F: LOCAL IMPLEMENTATION PLAN (30 POINTS)

Characteristics of high-quality proposals meeting both the purpose and outcomes of the grant:

☐ Clearly describes how implementation of this grant will coincide with the implementation of the school's CLIP.

☐ Describes how this grant involves the use of the _Keys to Quality: Unlocking Continuous Improvement_ resources.

☐ Clearly describes how the School/LEA's grant proposal is aligned to the Georgia Performance Standards and the NETS-S.

☐ Identifies specific curriculum resources, including software and online resources that will be made available to the grant teachers and students.

☐ Clearly describes how the School/LEA's grant proposal is aligned to research and best-practice models of inquiry-based, technology infused, interdisciplinary, project-based, or engaged learning.

☐ Provides specific examples of how the instruction/classroom activities occurring in the STEM lab will change to encourage teachers to work collaboratively as a team, and will be motivating, rigorous, and beneficial to students.

☐ Specifies what STEM-related competitions will be provided to students.

☐ Clearly describes the type of formative assessments teachers will employ to monitor student growth in understanding and 21st century skills.

☐ Describes the process that will be used to develop the elementary feeder outreach program.

☐ Describes how the school will ensure all related science, technology, engineering, mathematics, and CTAE teachers will share the 21st Century STEM lab.

Provides no description of how rigorous, engaging, and authentic instruction will be delivered within this grant, and no connection to GPS, NETS-S, CLIP, and _Keys to Quality_	Provides minimal description of how rigorous, engaging, and authentic instruction will be delivered within this grant, but no connection to GPS, NETS-S, CLIP, and _Keys to Quality_	Broadly describes how rigorous, engaging, and authentic instruction will be delivered within this grant, but no connection to GPS, NETS-S, CLIP, and _Keys to Quality_	Specifically describes how rigorous, engaging, and authentic instruction will be delivered within this grant, and describes connections to GPS, NETS-S, CLIP, and _Keys to Quality,_ but no description of specific activities, competitions, or formative assessments	Specifically describes how rigorous, engaging, and authentic instruction will be delivered within this grant, describes connections to GPS, NETS-S, CLIP, and _Keys to Quality,_ describes specific activities, competitions, and formative assessments, and describes how teachers will share the STEM lab, but identifies no plan to develop elementary feeder outreach program	Specifically describes how rigorous, engaging, and authentic instruction will be delivered within this grant, describes connections to GPS, NETS-S, CLIP, and _Keys to Quality,_ describes specific activities, competitions, and formative assessments, describes how teachers will share the STEM lab, and describes plan to develop elementary feeder outreach program
0	1	2	3	4	5

Comments: (Required)

RAW SCORE x 6: _____

SECTION G: EVALUATION PLAN (10 POINTS)

Characteristics of high-quality proposals meeting both the purpose and outcomes of the grant:

☐ Describes how the school/LEA will evaluate progress toward research-based instructional practices, using technology effectively for teaching and learning, improving students' technology literacy, and academic performance in critical need areas.

☐ Specifies the steps and process for assessing success in implementing the funded project.

☐ Provides evidence that students from this program go into STEM-related careers or postsecondary STEM-related training.

☐ Provides evidence that students understand STEM-related careers including a clear understanding of what engineering professionals do.

☐ Specifies measures to evaluate the extent to which the project increases the integration of technology into instructional practices.

☐ Specifies the criteria used to measure the impact of the project on student achievement. At a minimum, CRCT or EOCT data submitted for 2009-2010 and 2010-2011 for the participating teachers/classrooms.

☐ Describes school's/LEA's ability to participate in a grant-wide common pre and post assessment that will be used to demonstrate their students' and teachers' 21st century skills.

☐ Provides a timeline for completing the implementation of the project and the evaluation steps. Both teacher and student data should be considered.

Provides no description of how project will be evaluated and no baseline data	Provides minimal description of how project will be evaluated and minimal baseline data	Broadly states how project will be evaluated, provides some baseline data, and provides a general timeline	Specifically states how the project will be evaluated, provides some baseline data, and provides a general timeline	Specifically states how the project will be evaluated, provides some degree of detail in baseline data, provides a timeline, and describes ability to participate on a committee to implement a grant-wide common pre and post assessment	Specifically states how project will be evaluated, provides explicit details and examples of evaluation, provides complete baseline data, provides a detailed timeline, describes ability to participate on a committee to implement a grant-wide common pre and post assessment, and provides evidence that students from this program understand STEM-related careers and pursue STEM-related careers/postsecondary training
0	1	2	3	4	5

Comments: (Required)

RAW SCORE x 2: _____

SECTION H: DISSEMINATION PLAN (10 POINTS)

Characteristics of high-quality proposals meeting both the purpose and outcomes of the grant:

☐ Clearly describes what the school/LEA hopes to learn and gain from participating in this grant program.

☐ Outlines specific plans to use this information and increased capacity locally in the future.

☐ Outlines specific plans to share what is learned with others beyond the school/LEA.

☐ Provides a clear plan for disseminating information that will improve student achievement.

☐ Provides evidence of targeting specific audiences.

☐ Describes plans to develop specific, usable products that would be useful to others.

☐ Describes how technology will be used to aid dissemination activities.

☐ Identifies how the dissemination plan will benefit a broad audience and a variety of stakeholders.

☐ Identifies a high probability that others would respond to the school/LEA's dissemination plan.

Provides no plan for dissemination of project outcomes	Provides minimal description of dissemination of project outcomes	Broadly states how outcomes will be disseminated but provides no detail or specifics	Specifically states how outcomes will be disseminated but provides no detail or specifics	Specifically states how outcomes will be disseminated and provides some details on plan for sharing outcomes beyond the LEA	Specifically states how outcomes will be disseminated by providing explicit details and examples of how outcomes will be shared beyond the LEA and examples of how outcomes might be shared statewide
0	1	2	3	4	5

Comments: (Required)

RAW SCORE x 2:_____

OVERALL PROJECT QUALITY (10 points)

In this section, readers are asked to consider the grant proposal holistically and assign a score for overall quality of the proposal. Above all else, the reviewer must consider the school system's capacity to implement the required grant activities so that the critical grant outcomes of increasing community understanding of the importance of STEM education and capacity to sustain a viable STEM educational program to prepare students for work and life in the 21st century; developing model technology enabled STEM labs emphasizing, interdisciplinary, hands-on, inquiry-based (guided discovery) learning aligned to the Common Core State Standards and the Georgia Performance Standards; increasing Georgia's capacity to provide high quality K-12 STEM professional learning opportunities; increasing student engagement and interest in STEM studies; increasing student 21st century skills and technology literacy by providing students with opportunities to use the technical tools of the STEM industry; and increasing the number of students pursuing careers in STEM-related fields and/or post-secondary STEM related education/training are achieved.

STOP!   Total your scores for the 1st nine (9) Sections

Score for first 9 Sections (Format Section + Sections A – H) = _____

Based on this score and using the following scoring blocks, determine your recommendation for funding. If the score for the first nine (9) sections is **67** or less, then do **NOT** recommend them for funding. If you think this score is not a correct representation for the first 9 Sections, then please go back and re-score them.

0 - 50	51 – **67**	68 – 84	85 – 98	99 – 108	109 - 115
Not Recommended for Funding		**Recommended for Funding**		**Highly Recommended for Funding**	
0	1	2	3	4	5
Not confident that the system has the capacity to ensure high-quality implementation and achievement of grant outcomes.		**Moderately confident that the system has the capacity to ensure high-quality implementation and achievement of grant outcomes.**		**Highly confident that the system has the capacity to ensure high-quality implementation and achievement of grant outcomes.**	

Comments: (Required)

RAW SCORE x 2: _____