



Top 30 To Do's

Introduction

With the support from the U.S. Department of Education, NASA, the National Alliance of State Science & Mathematics Coalitions and key business/industry partners nearly 100 of South Carolina's leading advocates for STEM education participated in South Carolina's Summit for Mathematics and Science on April 14-15, 2005. These advocates came from all walks of life; business/industry, education, government and community organizations.

Participants were challenged to generate ideas for actions that would promote STEM education in SC. What follows are participants' ideas categorized wherever possible into the SCCMS Action Domains that best fit their concern.

ADVOCACY - We serve as a constant and consistent voice for quality in science, technology, engineering and mathematics (STEM) education.

Summary: Summit participants indicated a sense of disarticulation within our STEM education system and among various STEM education stakeholders. Participants saw a common vision and collaborative action as precursors to reaching an ideal state of STEM education in South Carolina.

- A1) Become one voice with a platform.
- A2) Bring a general awareness to the public concerning the state of STEMS in SC.
- A3) Keep the focus on Math and Science as OTHERS have kept it on READING for so MANY years. Collaborate pre-K to college to focus on this.
- A4) Heighten awareness among educators and business/industry folks about how to coordinate and help youth become inspired to learn and see themselves in jobs for the future.
- A5) Promote accomplishments and needs with PR efforts.
- A6) Partner with the business community and leaders to call attention to Math and Science
- A7) Explore ways the business community in SC can promote the teaching profession as a worthwhile career to pursue for skilled math and science people/students. Send a loud and clear message that schools need instructional personnel to support teachers using job-embedded staff development strategies.
- A8) Engage more businesses and industries in meaningful contributions to STEM education in the state
- A9) Lobby the political powers. / Be an active political voice
- A10) Leverage industry "clout" to overcome political, bureaucratic, or other barriers
- A11) Work toward legislative understanding through our business representatives to encourage funding for K-12
- A12) Continue to bring funding into state for further discussion--keeping the topic on the "table", coordinate a statewide awareness/marketing campaign,
- A13) Facilitate collaboration between elementary/middle/high and secondary education.
- A14) Provide networking and meeting forums between businesses and educators, be the unifying organization for the disparate groups--teacher organizations, boards, etc.
- A15) Start supporting regional coalitions similar in structure to the state coalition.
- A16) Have some regional summits to bring its goals closer to the grass roots and encourage stake holders to link up within regions.

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PROFESSIONAL DEVELOPMENT - We partner with qualified organizations to deliver professional development opportunities designed to enhance teachers' effectiveness.

Summary: Ideas generated by Summit participants indicate a sense that our STEM teachers need more support than is currently available. Participants saw a strong connection between effective professional development (at both the pre-service and practicing levels) and effective STEM teaching:

PD17) Continue to move the state forward in its delivery and improvement of science & math instruction, learning, and assessment.

PD18) Continue to do what you are currently doing until we are able to have an impact all across the state

PD19) I would like to see them come into the schools for some training so that everyone is aware of STEM education.

PD20) Increase teachers' work year by 5-10 days so we have time to provide the needed staff development.

PD21) Provide GOOD, effective, ongoing staff development for all teachers.

INSTRUCTIONAL MATERIALS SUPPORT - We develop efficient and effective ways to support the use of materials associated with exemplary curricula.

Summary: While this is an important Action Domain for Coalition partners, Summit participants ideas for action to indicate their concerns in this realm. The Coalition's Founding Partners see a strong connection between effective materials support and effective STEM teaching.

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INNOVATION - We identify, design and disseminate effective instructional tools and techniques to schools in South Carolina and beyond.

Summary: Summit participants were concerned about disparity. South Carolina is still seen as a state of "haves" and "have-nots" when it comes to opportunities in STEM education. Participants wanted good ideas spread and wanted consistency at a high quality level.

I22) Push to incorporate something into the curriculum for all students that lets them see the importance of competence in science and math.

I23) Help make the connections. Take science and math into the cutting edge of seeking new ways of advancing and learning from new data and resources available worldwide.

I24) Help with networking and communicating about programs that are working in various regions and helping other areas get programs going.

I25) Provide a mechanism for communication of best practices.

I26) Help me gain support for my idea and spread it all over the state

I27) Become a test bed for ideas and projects to improve STEM in the state

I28) Create and encourage a model of early recruitment of high school students for STEM by business with a program that identifies strong seniors and offers strong scholarship support for pursuing a STEM major in the state...with commitments from business and student for summer internships and a term of employment after graduation.

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PROGRAM EVALUATION - We seek to understand and further refine our own and other programs' abilities to impact student achievement.

Summary: Summit participants generated a multitude of questions about what works and does not work in supporting STEM instruction. Though many questions were generated few actions were suggested.

PE29) Work with schools, colleges and universities on collaborative efforts and evaluation of programs in place and in communicating progress to the general public as well as providing information on best practices and program effectiveness.

PE30) Come up with some position statements and talking points concerning what exemplary instruction is. When and why student-generated knowledge is superior to teacher-generated knowledge. Do sit and get methods ultimately fail? Why?

ORGANIZATIONAL – Put together a structure for action.

Summary: SCCMS is a new organization. While Summit participants were not asked to focus on the organization, they did generate a few ideas about how to make it work.

- A) Develop an action plan with a few good strategies that hold the most promise for the greatest impact
- B) Organize, set specific and reasonable goals, recruit support, and get moving!
- C) Get an organization for the Coalition, establish the leadership, and bring in parties from all facets of math/science/technology. Keep the communication in the forefront.