



CSTEM Teacher & Student Support Services, Inc.

Communication

Science

Technology

Engineering

Mathematics

The CSTEM Challenge Process at a Glance

Why should you partner with CSTEM?

Since 2002, CSTEM Teacher and Student Support Services, Inc. has provided innovative and specialized services to teachers and students in areas of communication, science, technology, engineering, and mathematics (CSTEM). As a 501 (c) (3) organization, CSTEM, Inc.'s **mission** is to assist schools with closing the achievement gaps among underrepresented students in the instructional areas of CSTEM through focused teacher training; experiential learning for public, private, and charter school students through practical application; and exposure to careers in related communication, science, technology, engineering, and mathematics fields for grades preK-12. CSTEM, Inc. accomplishes this through innovative interdisciplinary partnering with elementary, middle, and high schools.

The partnership benefits are as follows:

- **Twenty-four hours of intensive, hands-on training for teachers** in areas of communication, science, technology, engineering, mathematics, art, English Language Arts and history);
- **FREE teacher and student workshop training and technical support sessions** the form of monthly Saturday workshops and membership to CSTEMbreak—our online social media collaborative community that leverages the power of technology to connect teachers vertically (across age groups and content areas) and horizontally (within their own instructional levels and instructional disciplines);
- **FREE STEM instructional resource kits**, containing cutting-edge instructional materials used in the year-long program (integrating current innovations); and
- **FREE CSTEM Challenge Kick-off and competition experience that engages students** in multi-age groups to collaboratively solve real-world challenges that:
 - a. are designed by industry professionals;
 - b. are aligned to national and state standards;
 - c. provide a competitive environment for teachers and students to demonstrate understanding and application of STEM;
 - d. connects colleges and universities, industry, professional non-profit organizations, public servants, and schools through a centrally focused project—the international CSTEM Challenge;
 - e. and serves as an accountability and performance measure—using artifact solutions developed by Pre K through 12 students in areas of robotics, green, GIS, sculpture, mural, 3-dimensional geometry, social media, and creative writing.

The four key components mentioned above, when combined, have an **immediate impact on the level of competence and confidence of participating teachers** to integrate the STEM fields with art, English Language Arts, social studies, science, math and communications and to improve their skill set—NOW, not at some future point in time—using the CSTEM Challenge as the vehicle.



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The International CSTEM Challenge

Theme: “Everyone is an Artist and an Engineer”

Partnership Letter

Providing Opportunities that Create Endless Possibilities

Dear Principal:

CSTEM is proud to partner with _____ as a participant in the 2012 National
School Name

CSTEM Challenge. Since 2002, CSTEM Teacher and Student Support Services, Inc. has provided innovative and specialized services to teachers and students in areas of communication, science, technology, engineering, and mathematics (CSTEM). As a 501 (c) (3) organization, CSTEM, Inc.’s **mission** is to assist schools with closing the achievement gaps among underrepresented students in the instructional areas of CSTEM through focused teacher training; experiential learning for public, private, and charter school students through practical application; and exposure to careers in related CSTEM fields for grades Pre K through 12.

Each participating school is required to train a minimum of six (6) teachers through the CSTEM Teacher Training Institute (September 26-October 1, 2011), \$239.00 per teacher. Additional costs schools incur are associated with travel to participate in the International CSTEM Challenge in Houston, Texas at the George R. Brown Convention Center.

Our investment in your school through this **partnership is valued at over \$10,000.00**. CSTEM’s designated funding covers costs associated with your school’s participation in the following:

1. **CSTEM Challenge Kick-Off (September 24, 2011)**
2. **Ongoing virtual training and technical support for teachers and students, six Saturday workshops, (October 22nd; November 12th; December 10th; January 14th; February 11th; and March 3rd)**
Occur using innovative meeting and information sharing tools such as conference calls, on-line collaborative community, CSTEM-break.ning.com, cable TV, and Skype--leveraging the power of technology to connect teachers vertically (across age groups and content areas) and horizontally (within their own instructional levels and instructional disciplines);
3. **STEM instructional resource kits**, containing cutting-edge instructional materials used in the year-long program for implementation of the curriculum (integrating current innovations); and
4. **International CSTEM Challenge competition that engages teachers, students, and parents – George R. Brown Convention Center Houston, TX (March 30, 2012 – tentative)** multi-age teams compete in six challenges that are designed by industry professionals and are aligned to national standards. The artifact solutions to real-world problems are created by collaborative teams of elementary, middle, and high school students. Teachers and students demonstrate through competition depth of learning, relevance of the CSTEM training, level of engagement in STEM, excitement and enthusiasm about STEM, and understanding of how STEM applies to the real-world.

These four key components, when combined, have an **immediate impact on the level of competence and confidence of participating teachers** to integrate the STEM fields with art, English Language Arts, social studies and communications and to improve their skill set—NOW, not at some future point in time—through the vehicle of the National CSTEM Challenge. The Challenge provides students with an environment that supports the application of learning in content-area courses to solve real-world problems designed by professionals in the oil and gas, engineering,



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mathematics, and technology industries, representing a real collaboration with practicing scientists. In the table below, please list the lead contact for each school participating on your team.

SCHOOL NAME	CONTACT NAME	EMAIL	PHONE
HIGH-			
MIDDLE-			
ELEMENTARY-			

Stimulating student interest and engagement in the STEM fields through hands-on problem-solving is key: their engagement is infectious and gives the teachers motivation to learn more and improve their own skills and techniques. CSTEM’s unique system of teacher training and development, in turn, further impacts student interest, engagement, and achievement at all levels, K-12, through whichever discipline (art, communications, math, science, and technology) appeals to the student most. Through CSTEM’s structured pedagogical approach, teachers are encouraged to find their own entry point into STEM teaching, enhance their own abilities to provide high-quality STEM instruction, and work with students over time to produce products that demonstrate their learning—all while being supported by CSTEM, Inc. and its team of advisors, staff, volunteers, scientists, and industry partnerships.

At the close of this letter there is a signature line for your acknowledgement of our partnership and your commitment to ensuring your teachers and students are successful in accomplishing their team learning goals and objectives to successfully compete in the 2012 International CSTEM Challenge on March 30, 2012 (tentative). The deadline for our office to receive a signed copy of this letter is **August 19, 2011** via fax, mail, or e-mail.

Thank you in advance for partnering to create the next generation of STEM leaders. If you should have any questions or concerns, please do not hesitate contacting our office.

Yours in the Journey of Education,

Reagan Flowers, PhD
Founder and CEO

The signatures below acknowledge the partnership between CSTEM and _____.

School Name

Principal Signature

Date



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CSTEM Challenge Teacher Training Registration Form

PAYABLE TO:

Education Consulting Services, LLC
 3226 Alabama Street
 Houston, TX 77004

CALL 713.443.4521
 FAX 713.748.7454
 INTERNET www.ecsllc.biz

Cancellation Policy: No Cancellations.

Gain FREE Entry into the 2012 CSTEM Challenge

1.	Event Name and Dates	Event Location & Dates	Price per person	# of Registrants	Grand Total
	<p>TEACHER TRAINING: September 26-October 1, 2011</p> <p align="center">Fueling the PreK-12 STEM Pipeline using Sustainable Strategic Real-world Learning</p> <p>REGISTRATION DEADLINE: August 19, 2011 (Late Fee: \$100.00 has been waived for all schools)</p> <p>NOTE: At least (6) teachers from each participating school on a Pre K-12 team must participate in the training.</p>	www.cstemtraining.com	<p>Days 1-6 \$239.00</p>		

2.Registrant

<p>SEND TO:</p> <p>First Name _____</p> <p>Last Name _____</p> <p>Position _____</p> <p>Organization _____</p> <p>Address _____</p> <p>City/State/Zip Code _____</p> <p>Daytime Phone _____</p> <p>Fax _____</p> <p>Email (required) _____</p>	<p>BILL TO (if different):</p> <p>First Name _____</p> <p>Last Name _____</p> <p>Position _____</p> <p>Organization _____</p> <p>Address _____</p> <p>City/State/Zip Code _____</p> <p>Daytime Phone _____</p> <p>Fax _____</p> <p>Email (required) _____</p>
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3. Additional Registrants (Visit www.ecsllc.biz for a multiple registration form.)

First Name _____	First Name _____
Last Name _____	Last Name _____
Position _____	Position _____
Organization _____	Organization _____
Address _____	Address _____
City/State/Zip Code _____	City/State/Zip Code _____
Daytime Phone _____	Daytime Phone _____
Fax _____	Fax _____
Email (required) _____	Email (required) _____

4. List Partnering Schools Information that will attend training.

(Visit www.ecsllc.biz for a multiple registration form.)

Note: Training is for anyone interested in learning how to implement interdisciplinary, real-world, project-based, problem-solving K-12 STEM enrichment curriculum. It is recommended that teachers, curriculum coordinators/content specialist, administrators, retired professionals interested in teaching STEM, student teachers, university professors, and university Pre K-12 community outreach program directors attend.

In order for schools to gain entry into the **2012 CSTEM Challenge**, which kicks-off September 24, 2011, participating P-12 partnering schools that make-up a **team (1 Elementary, Middle, and High School)** must participate in the training.

All CSTEM Challenge schools will receive at **NO COST**; the challenge kick-off experience, receive the CSTEM Tool-kit, receive six free workshops, and the international challenge competition experience.

Lead Contact:	Lead Contact:
First Name _____	First Name _____
Last Name _____	Last Name _____
Position _____	Position _____
School Name _____	School Name _____
Address _____	Address _____
City/State/Zip Code _____	City/State/Zip Code _____
Daytime Phone _____	Daytime Phone _____
Fax _____	Fax _____
Email (required) _____	Email (required) _____

5. Payment Method in U.S. dollars (Registrations will not be processed and seats will not be held until payment has been received.)

Check enclosed (Payable to ECS, LLC)

Purchase order enclosed (Note: We cannot process your registration until we receive an official copy of your purchase order by fax or mail. All purchase orders must note payment terms of net 30 days from the date of invoice and be accompanied by a completed registration form.)

Visa MasterCard Discover/Novus American Express

Card# _____ Exp. Date: _____ CVC: _____

Cardholder Name _____

Cardholder Signature _____



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VIRTUAL (Central Time Zone) ~ CSTEM Teacher Training Institute

TENTATIVE - September 26-October 1, 2011

Theme: Fueling the Pre K-12 Pipeline using Sustainable Strategic Real-world Learning

Training Format: (1 hour) Interactive Training with Trainer

(30 minutes) Teacher Independent practice

(30 minutes) Interactive with trainer ~ Quiz/Q & A/Reflection

DAY 1 ~ TRAINING SESSIONS ~ September 26, 2011 – Concurrent Sessions

2 Hours ~ Topic – Digital Fabrication – Time: 5:00-7:00 PM

Materials Needed:

- Book and Handouts: TBD
- Computer
- Phone
- Internet

2 Hours ~ Topic – What does Creative Writing have to do with CSTEM? – Time: 5:00-7:00 PM

Materials Needed:

- Computer
- Phone
- Internet

DAY 2 ~ TRAINING SESSIONS ~ September 27, 2011 – Concurrent Sessions

2 Hours ~ Topic – Industrial Art – Time: 5:00-7:00 PM

Materials Needed:

- Book and Art Supplies: TBD
- Computer
- Phone
- Internet

2 Hours ~ Topic – Green – Time: 5:00-7:00 PM

Materials Needed:

- Computer
- Phone
- Internet

DAY 3 ~ TRAINING SESSIONS ~ September 28, 2011 – Concurrent Sessions

2 Hours ~ Topic – State and National Standards – Time: 5:00-7:00 PM

Materials Needed:

- Computer
- Phone
- Internet

2 Hours ~ Topic – Geographical Information Systems (GIS) – Time: 5:00-7:00 PM

Materials Needed:

- Computer
- Phone
- Internet



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DAY 4 ~ TRAINING SESSIONS ~ September 29, 2011 – Concurrent Sessions

2 Hours ~ Topic – Sustaining P-12 Pipelines – Time: 5:00-7:00 PM

Materials Needed:

- Book: TBD
- Computer
- Phone
- Internet

2 Hours ~ Topic – Mobile Applications – Time: 5:00-7:00 PM

Materials Needed:

- Book and Supplies: TBD
- Computer
- Phone
- Internet

DAY 5~ TRAINING SESSIONS ~ September 30, 2011 – Concurrent Sessions

2 Hours ~ Topic – Communications – Time: 5:00-7:00 PM

Materials Needed:

- Computer
- Phone
- Internet

2 Hours ~ Topic – Google Sketch-up – Time: 5:00-7:00 PM

Materials Needed:

- Computer
- Phone
- Internet

DAY 6 ~ TRAINING SESSIONS ~ October 1, 2011

2 Hours ~ Topic – Robotics – Programming ~ Time: 9:00-11:00 AM

Materials Needed:

- Computer
- Phone
- Internet

2 Hours ~ Topic – Robotics – Simulation ~ Time: 12:00-2:00 PM

Materials Needed:

- Computer
- Phone
- Internet

2 Hours ~ Topic – Robotics– Physical Robots ~ Time: 3:00-5:00 PM

Materials Needed:

- Computer
- Phone
- Internet