

The Global STEM Education Center



DOME Foundation
Diversity and Outreach in Mathematics and Engineering



*Global Technology and
Engineering Consortium*

Building Learning Communities Annual Conference July 16, 2014 Boston, Massachusetts

Educating students who can succeed
in a *flat and diverse globe*—

Preparing for learning and doing we
cannot yet imagine

Welcome to the 21st Century
Join our Journey!



*Global Technology and
Engineering Consortium*

Re-visiting the “Shift Happens” on Youtube in 2006...

- * “We are currently preparing student for jobs and technologies that don’t yet exist...”
- * “... in order to solve problems we don’t even know are problems yet..”
- * “...there are students...(around the world and the USA) who...apply, analyze, evaluate, communicate, collaborate...on projects every day...are YOU doing THIS in your school?...”
- * “...ask your Principal...how are YOU helping my child become literate in the 21st century?...”
- * “...ask your School Board...are YOU providing the resources and training necessary to prepare students to be successful in 21st century society?..”

These questions were asked more than 10 years ago...

The 2014-2015 school year is starting shortly.....

Do YOU have YOUR answers yet? Are YOU ready?

We have answered these questions!
Our GLOBAL STEM CLASSROOM opened its “doors”
in 2007 WHERE ARE WE TODAY?

- * Excellent experience and great results working with schools in UK, Russia, The Netherlands, France, Ukraine and USA**
- * Almost 1000 students....almost 100 teachers, school administrators, Technology Directors, IT specialists**
- * About 25 STEM innovative multi-disciplinary collaborative projects completed by international student teams**
- * Our students & teachers have mastered their collaboration, multicultural communication, global team-work and other 21st century skills!**
- * Outstanding external evaluation...**
- * Excellent feedback from students, parents, teachers**
- * Fast growing collaborative network and partnerships around the globe**

“Diving deeper” into the 21st century skills – let’s talk about Two major components of the Global STEM Classroom

- * Learning and Innovation: Critical thinking, Creativity and Innovation, Communication and Collaboration, Visual Literacy, Scientific and Numerical Literacy, Cross-Disciplinary Thinking**
- * Information, Media and Technology Skills**
- * Global Awareness; financial, economic, business, entrepreneurial literacy; civic literacy; environmental literacy**
- * Flexibility and Adaptability; Initiative and Self-direction; social and cross-cultural skills**

“Diving deeper” into the 21st century skills – let’s talk about two major components of the Global STEM Classroom (cont’)

- * Productivity and accountability**
- * Leadership and responsibility**
- * Intercultural Competency**
- * Global team work skills component (based on NASA 4D systems methodology)**

Diversity Skills Needed for Working Globally

- * **Intercultural competency is a “must-have”**
- * **Knowing the foundations of intercultural communication and mastering one’s multicultural communication skills**
- * **Knowing one’s own beliefs & assumptions about differences & stereotypes**
- * **Ability to take cultural differences into consideration while participating in a project & building multicultural team**
- * **Examining one’s personal values & their impact on one’s actions, reactions, & perceptions**

Next steps

- * **Expanding our global partnerships with schools in Sweden, Norway, Iceland, Mexico, New Zealand, India, China, Singapore**
- * **Continuing to develop new collaborative multi-disciplinary STEM projects using innovative technologies**
- * **Global STEM 24/7 “marathon” conference**
- * **Expanding international teachers, school administrators and Technology Directors network**
- * **Mapping the Global STEM programs to the National Standards**

The Team:

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