

May 24, 2012

ENVISION YOUR FUTURE

Bridgewater State University

WORKSHOP SELECTION FORM

RETURN BY FRIDAY, MAY 11, 2012 TO

Katherine Honey @khoney@comcast.net

Contact Name: _____ Email: _____ Phone: _____ School District: _____

SCHOOL GROUP # ____ *The number next to the name of your school district in the following list is your School Group # - write it in the line provided.*

Attleboro-1, Barnstable-2, Brockton-3, Canton-4, Dartmouth-5, Foxborough-6, Freetown/Lakeville-7, Mansfield-8, New Bedford-9, North Attleboro-10, Norton-11, Plainville-12, Plymouth-13, Provincetown-14, Sandwich-15, Taunton-16, Whitman/Hanson-17.

NOTE: ONE WORKSHOP SELECTION FORM PER SCHOOL GROUP: Some school districts have students coming from more than one school. The contact person should compile the information on workshop selection and send one form for the school district. *If you have questions, contact Katherine Honey at khoney@comcast.net or at 508-316-1480.*

REGISTRATION: Indicate (X) your preferred time to arrive to register your School Group. Arrival: __ 8:15AM __ 8:30AM __ 9:00AM
DEPARTURE: Indicate (X) the time your Student/Teacher Group plans to depart. Departure: __ 12:30PM __ 1:30PM __ 2:00PM __ Other _____

Workshops and activities begin at 8:30AM and end at 2:00PM. The number of workshops and activities your students participate in depends on the time of your arrival and departure. Along with 17 workshops, there are two activity areas each with over 20 activities and demonstrations. Every hour students will move to a new workshop or activity area. When you arrive at the STEM Expo you will receive a master schedule that tells you where your students are scheduled to be each hour. Additional information on parking and logistics can be found on the "Directions and Parking" and "General Information" documents on the STEM Expo website: <http://www.connectsemass.org/stem/stemexpo.html> .

SCHOOL GROUP TEAMS - A, B, AND C: Divide your School Group into 3 Teams (up to 10 students and at least 1 adult). Teams will be identified by their School Group # and Team letter on the schedule, for example: Attleboro will be Team 1A, Team 1B and Team 1C and Barnstable will be Team 2A, Team 2B and Team 2C. Teams will travel to workshops and activity areas together.

CHOOSE FOUR (4) WORKSHOPS FOR EACH TEAM

In order to ensure that your students attend as many different workshops as possible, you need to schedule each Team so that each Team attends different workshops. Each Team will be able to participate in at least two workshops. We will do our best to accommodate your choices. No selection is guaranteed.

On the next page: Choose four (4) workshops for Team A - Choose four (4) different workshops for Team B – Choose four (4) different workshops for Team C.

School Group # _____

Indicate (X) in the boxes under each team choices of 4 workshops for Team A, 4 different workshops for Team B, 4 different workshops for Team C.

WORKSHOPS	TEAM A	TEAM B	TEAM C
Benefits of Oil – What You Do If It Spills! Students will observe an “oil spill” and then collaborate as a team to clean it up. Concepts emphasized in the activity will include scientific method, the engineering process, and the potential effects of chemicals on natural resources. <i>Lori Noble, Laurie Norman, Massachusetts Maritime Academy.</i>			
Design & Construct a Sustainable Structure - Working alone or in pairs, participants will create a structure that incorporates the principles of sustainable design. <i>Presented by Susan Casey, Master Teacher, Learning by Design and students from Northeastern University, Engineering Department.</i>			
The Power of Wind - Working in small teams, students will design and test blades for a working wind-driven generator. They test their designs using a voltmeter to measure the amount of electricity produced. <i>Presented by Carolyn DeCristofano, President Blue Heron STEM Education and Deb Dempsey, Director, Blue Heron STEM Education.</i>			
Marshmallow Construction Company - Team Challenge: Student teams will build the tallest free-standing structure possible out of 20 sticks of spaghetti, one yard of tape, one yard of string, and one regular size marshmallow. <i>Presented by Cambridge Science Festival and the MIT Museum.</i>			
Create a Simple Math Game Using SCRATCH - Using Scratch, students will create a math program they can take with them. STUDENTS MUST BRING A FLASH DRIVE (1GB OR LARGER) IF THEY WANT TO TAKE HOME A COPY OF THEIR MATH PROGRAM. <i>Presented by Kimberly Zogalis, CIS Instructor, Tri-County RVTH.</i>			
Learn How to Create a Computer Game - Using Kodu, students will use simple visual programming language to create a game that they can take with them. STUDENTS MUST BRING A FLASH DRIVE (1GB OR LARGER) IF THEY WANT TO TAKE HOME A COPY OF THEIR MATH PROGRAM. <i>Presented by Priscilla Grocer, Professor & Chair, Computer Information Systems, and Rose Ferro, Adjunct Faculty, Computer Information Systems, Bristol Community College.</i>			
ECGs and Spirometry - Explorations in Health Care - Students will record each other’s ECG’s using Vernier ECG probes and laptops. Students also will record lung volumes and capacities using a Vernier Spirometer and laptop. <i>Presented by Marc Simmons, Biology Department, Massasoit Community College.</i>			
Conduct a Medical Examination of a Stranded Sea Turtle (model) - Students will conduct a medical examination of a sick sea turtle then weigh and measure their model turtle and record all data in the animal’s medical chart. <i>Presented by Sarah Trudel, Marine Science Instructor, and Kathy Zagzebski, Executive Director, National Marine Life Center. Please note that no live animals are used in this lesson; activities will be conducted with models and specimens. &</i>			
Well Baby Checkup Using the simulated healthy baby manikin, students will make observations, listen to lung and breathing sounds and feel the manikin to conduct this assessment. <i>Presented by Jean Ivil, MSN, RN, RRT, Brockton Hospital School of Nursing, Signature HealthCare-Brockton Hospital</i>			
Build a NFL Football Team - Using budgets and statistics, students will analyze players’ strengths, weaknesses and salaries to assemble the best offensive unit. <i>Presented by Peg Myers, Education & Tours Coordinator, The Hall at Patriot Place presented by Raytheon.</i>			
Who Wants to be a ‘Money Smart’ Millionaire? Learn about Money and win prizes while playing the interactive game <i>Who Wants to be the ‘Money Smart’ Millionaire?</i> <i>Led by HarborOne U employees, Sheila Farragher and Maureen Wilkinson - HarborOne U®, a division of HarborOne Credit Union.</i>			
Be Your Own Boss – Make Money Doing What you Like What do you like to do? Whatever your interests, learn how to create a business plan for a business that allows you to make money while you are doing what you like. <i>Presented by Senior Education Manager, Junior Achievement of Northern New England.</i>			
There's Math in How You Move - In this workshop, we will use software on the computer and motion sensors to import, graph, and analyze physical data and re-play these motions to see mathematics come to life! <i>Presented by Sara Dalton, James Burke & Stephen Hegedus, Kaput Center, University of Massachusetts Dartmouth.</i>			
Touch and Feel Mathematics Using the iPad, see how the latest research-based technology can transform how you explore mathematical ideas in radically different modes. <i>Presented by Ryan Robidoux, Stephen Hegedus & Beste Güçler, Kaput Center, University of Massachusetts Dartmouth.</i>			
Smart Skies - Students will work at a computer with a FAA air traffic controller to explore how to solve a real-world air traffic control problem using the NASA Smart Skies air traffic control simulator. <i>Presented by Julie Ann Seltsam-Wilps, FAA - New England Region Aviation Education Program Manager and Shelia Bauer, Director of Education, Massachusetts Air and Space Museum (MASM) and representatives of the MASM Fred Morin, John Garabedian, and Jeff Bauer.</i>			
EarthView - Students step into a 20’ inflatable globe and explore the entire world. YOU MUST BRING A PAIR OF SOCKS TO WEAR WHILE INSIDE EARTHVIEW. <i>Presented by Geography professors Dr. James Hayes-Bohanan and Dr. Vernon Domingo and geography students on the EarthView team, Bridgewater State University Massachusetts.</i>			
From Blueprint to Assembly Line – How Fast Can You Go? Using a blueprint, two teams will compete. Given components, they will use the blueprint to plan and implement the fastest way to assemble the components. Meet professionals in the field of precision machining and learn about the manufacturing process. <i>Presented by Kayla MacGregor, Process Engineer, AccuRounds, Diane Ferrera, HR Manager, AccuRounds and CNC Machinist TBA.</i>			
Fueling Your Future Students will build circuit boards using schematics and actually create a working fan and light model. This problem-solving activity will reinforce skills needed to work in a team as well as open discussion around career pathways related to STEM. <i>Presented by Janice Tkaczyk, Universal Technical Institute.</i>			