



Submarine Force Library and Museum Association Historic Ship *Nautilus* Summer 2014 STEM Teacher Fellowships



The Submarine Force Library and Museum Association, in cooperation with the Submarine Force Museum, Historic Ship *Nautilus* and the Naval Historical Foundation, is pleased to offer science, technology, engineering, and mathematics (STEM) teacher fellowships again this summer to middle school and high school STEM teachers. Elementary school teachers interested in relating their STEM learning standards and teaching objectives to the undersea world of submarines and submarine history are also included this year. ***Teachers from Southeastern Connecticut may apply by May 29, 2014 for the fellowship at the Submarine Force Museum in Groton, CT from July 14-25, using the attached application.***

Background: The Navy has partnered with the non-profit 501(c)(03) organizations: Submarine Force Library and Museum Association and Naval Historical Foundation, for acquisition of state-of-the-art exhibits and supporting education programs. Museum exhibits and companion virtual tours, on-line virtual tours, and education programs tell the story of the Navy's role in peace and war. Our U.S. Navy Submarine Forces serves as an essential force of stability in an increasingly unstable and interconnected world – a Global Force for Good. STEM teacher fellows will learn about the significant advances pioneered by Navy research, development, technology and engineering inherent in the Submarine Force Museum exhibits through an immersion program with local submarine STEM professionals.

Mission: Each fellowship teacher's task is to connect museum exhibit fundamental STEM concepts to their subject's teaching standards and learning objectives, developing several lesson plans and activities for classroom use and museum virtual tours. Lesson plans will be incorporated into the Submarine Force Museum and *Nautilus* website at www.ussnautilus.org/education/stemlessonplans.shtml.



The history of the Navy is the history of technology: nuclear propulsion, electronics, mathematical systems, computing, aerodynamics, inertial guidance, chemistry, metallurgy, underwater physics, satellite communications, and world-wide navigation systems. This technology led to many non-military applications that are commonplace in today's world. Connecting the museum exhibits to student learning objectives brings to life the science and mathematics involved. Completed work of STEM teacher fellows from 2011-2012 is at: www.usnavymuseum.org/Education.asp. Similar plans have been produced for today's 21st century Navy at www.navystemforthe classroom.com.

Shown at the left, summer 2013 fellowship teachers are conducting a trial run of the lesson plan [Through the Minefields](#) on the final day. Greg Felber is arranging a domino minefield while Stacy Haines, Larry Chapman, and Ted Allen prepare their team's strategy and provide feedback.

STEM Virtual Tour: In parallel with the immersion program and lesson planning, good ideas that don't develop into a lesson plan or activity and specific examples extracted from each teacher's work, will be used by the fellowship coordinator to create a STEM virtual museum tour. This product will be incorporated in the museum's virtual tour program. The goal is a grade level/subject area "tour". An example is at: www.usmcmuseum.com/Education_teachers.asp (see STEM in the Gallery Guide).

STEM Teacher Fellowship Opportunity: The 2014 STEM teacher fellowship for Southeastern Connecticut elementary school, middle school, and high school science, technology, engineering, and mathematics teachers will take place at the Submarine Force Museum and Historic Ship *Nautilus*, in Groton CT from July 14 – 25, 2014. A stipend of \$2,400 will be paid to each of the four successful applicants for the program, upon fellowship completion.

Fellowship Expectations: Fellows will receive an immersion experience: a general Navy and submarine force orientation, discussion of museum exhibits and technology with subject experts, and submarine tours. The experts will be current Navy technicians, naval engineers, or submarine veterans. Using these resources, the teacher fellows will develop real world STEM examples, based on the science and mathematics inherent in the exhibits, and create lesson plans and activities for use in their classrooms. The work must meet each teacher's District Level standards as described by the State of Connecticut: see <http://www.sde.ct.gov/sde/cwp/view.asp?a=2618&Q=320954>. Completed lesson plans will be posted on associated museum websites for use nationwide, in conjunction with virtual museum tours.

At the conclusion of the program on July 25, 2014, teacher fellows will have the opportunity to showcase their work to a panel of Navy and Submarine Force Library and Museum Association staff. It is expected that our teacher fellows will share their experience and plans with colleagues at the local level, and (depending on acceptance) at state and national professional educator conferences. Previous STEM teacher fellows have been successful in highlighting their efforts in many teaching forums.

Eligibility: The Submarine Force Library and Museum Association seeks certified elementary school, middle school or high school educators with at least five years of experience teaching in the areas of science, technology, engineering, or mathematics. National Board Certification is a plus. Educators who are military veterans are encouraged to submit applications. The selection committee is looking for enthusiastic, creative individuals capable of developing interesting and challenging standards-based links between their subject areas and museum exhibits.

Applications: The application below should be submitted with attachments: a resume, a letter of support from the school Principal, Assistant Principal, or Department Chairperson, and a commitment to share completed work with colleagues at all levels. The application deadline is midnight May 29, 2014. Selections will be made by June 12, 2014. Send applications as a scanned pdf attachment to director@submarinemuseum.org or by FAX to 860-405-0568.

Information/Help: John Paulson, our fellowship coordinator at the Naval Historical Foundation, can answer questions about the program at jpaulson@navyhistory.org or at (202) 678-4333 extension 8. Selections will be made by June 12, 2014 and selectees will be notified promptly, no later than June 15, 2014.



Submarine Force Library and Museum Association
Summer 2014 STEM Teacher Fellowship Application
(Due midnight May 29)



Applicant Contact Information:

Name: _____
Street Address: _____
City, State, ZIP: _____
Home Phone: _____
Work Phone: _____
Cell Phone: _____
E-mail address(es): _____
Best time to contact you by phone: _____

Teaching Experience:

Total Years Teaching: _____
Subject Certification(s) and State(s): _____
School District: _____
School Name and Number of Years at current school : _____
School Principal/Assistant Principal: _____
Principal/Assistant Principal contact information: _____

Elementary Grade Level or Middle/High School Subjects & Grade levels you currently teach:

Department Chair/ Supervisor's Name: _____
Supervisor's contact information: _____
Bonus: National Board Certification Y/N Year/Subject(s): _____
Military experience: Y/N. If yes please discuss: _____
Personal Laptop: Y/N Does it have wireless capability? _____
Summer Availability: Y/N 14 – 25 July, comments: _____

Attachment #1 Resume

Please attach a resume which includes background, experience, awards received, presentations you have given to teacher groups for professional development or at conferences, and professional organizations to which you belong.

Attachment #2 Letter of Endorsement

Please include a letter of endorsement from your School Principal/Assistant Principal or Department Chairperson, describing your professional character and teaching strengths.

Attachment #3 Outreach Plan

A requirement of the STEM-H Fellowship is for teacher commitment to sharing their fellowship experience and lesson plans with colleagues. Fellows may do this at the individual school level and at district, state or national conferences. Please list your professional organizational membership(s), local, state or national conferences you have attended, and presentations you have given. If you are awarded a Fellowship, what future conferences do you anticipate as a venue for presenting your Fellowship work?