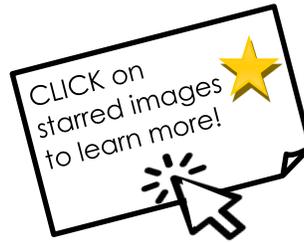


STEM

UNITED STATES NAVAL ACADEMY
STEM CENTER FOR EDUCATION AND OUTREACH



www.usna.edu/stem
usnastem@usna.edu



Fall 2020



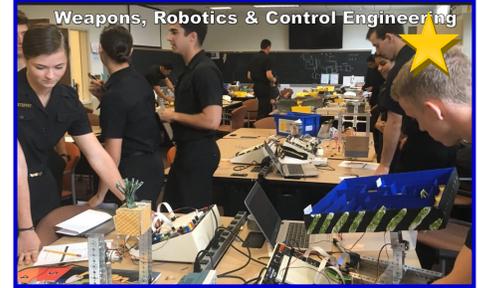
GIRLS ONLY STEM VIRTUAL PROGRAM

Sponsored by the Office of Naval Research and the USNA Foundation, middle school Girls Only STEM events in October included a livestream program and a series of school group virtual sessions featuring interactive projects led by midshipmen.



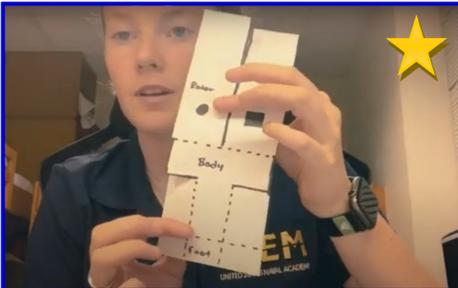
STEM EDUCATOR WORKSHOPS

Four professional development sessions for educators modeled virtual learning with live online sessions in Energy, Friction, and Navigation. Sponsored by ONR, NAF and DoDEA, sessions included scientific content, engineering design and hands-on activities.



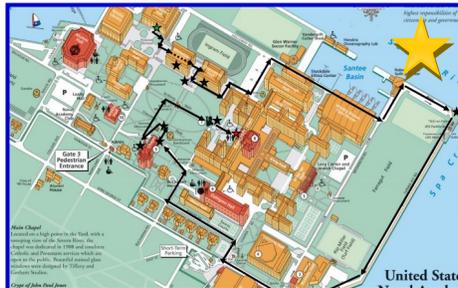
STEM ON DECK

In collaboration with the Office of Admissions, USNA faculty and midshipmen offered three virtual, real-time hands-on STEM sessions for high school students from community-based organizations throughout the country, in addition to a virtual tour of academic buildings and labs.



USA SCIENCE & ENGINEERING FESTIVAL SCIFEST ALL ACCESS

On behalf of DODSTEM and sponsored by ONR, USNA STEM faculty and midshipmen produced two video series highlighting STEM content and activities to try at home.



MARYLAND STEM FESTIVAL

In support of Maryland STEM Festival, the USNA STEM Center offered a virtual STEM scavenger hunt highlighting USNA landmarks and Naval STEM artifacts at the USNA Museum.



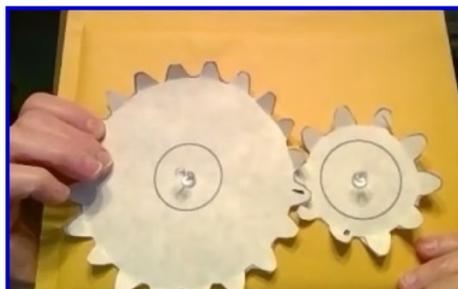
BEST PRACTICES IN STEM OUTREACH FOR FAA

USNA STEM, funded by ONR, provided a virtual STEM outreach workshop for FAA, highlighting project-based learning and engineering design in relevant content areas.



FAMILY STEM NIGHT

Midshipmen led families of USNA faculty and staff in interactive activities using household supplies, at this annual event held on a virtual platform. Topics included chemistry, physics, applied math, cryptography, and engineering.



PRE-SERVICE EDUCATOR WORKSHOP BOWIE STATE

Sponsored by ONR, pre-service teachers from Bowie State attended an interactive, virtual professional development workshop in project-based learning methodology and engineering design.



NICE K12 VIRTUAL CYBERSECURITY EDUCATION CONFERENCE

Using a hands-on interactive demonstration, USNA faculty from the STEM Center and the Cyber Studies Department presented innovative educational approaches for teaching cybersecurity.

THANK YOU for your generous support and ongoing acknowledgement of the positive impact these programs have on our nation's students and educators.

Volgenau Chair for Education and Outreach



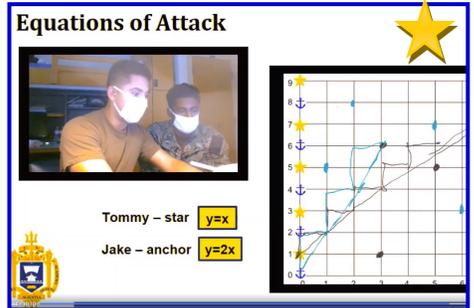
STEM SPOTLIGHT: Under the sponsorship of ONR and in support of the Office of Admissions, USNA STEM midshipmen and recent graduates developed and produced STEM Spotlight Videos highlighting content from their majors and STEM activities that can be done at home. Videos were also used to support virtual Fleet Weeks and virtual Navy Weeks across the United States.



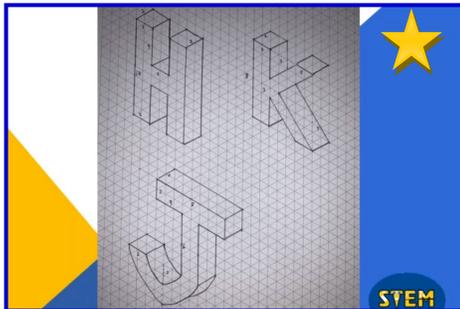
NAVY WEEK: TULSA, OK
MIDN 2/C Bonnie Tom, Physics Major and Women's Rugby player, explains inertia.



NAVY WEEK: TULSA, OK
MIDN 2/C Luke Murphy, Computer Science, explores steganography to study how secret messages can be hidden in plain sight.



Navy Week: Sante Fe, NM
MIDN 1/C Jake Pinon, Applied Math, investigates linear equations while playing the "Equations of Attack" game.



STEM SPOTLIGHT
MIDN 3/C Lian Dunlevy, Mechanical Engineering, explores mechanical drawing to design 3D bubble letters using modeling tools.



STEM SPOTLIGHT
ENS Lani Davis, Class of 2020, Computer Science and Information Technology, uses coding to explore logic, puzzles, and algorithmic thinking.

UPCOMING EVENTS: SPRING 2021

Jan	<ul style="list-style-type: none"> Pre-Service STEM Educator Workshop, Hood College, Virtual, Jan 13 STEM on Deck, Virtual, Jan 22
Feb	<ul style="list-style-type: none"> MESA STEM Days, Virtual, Feb 3 & 9 SET Sail STEM Educator Training, Virtual, Feb 20 & 27 STEM on Deck, Virtual, Feb 12 & 26 FIRST Tech Challenge Robotics Tournament, Virtual, TBD
Mar	<ul style="list-style-type: none"> High School Girls Only STEM Day, Virtual, Mar 4 National Eagle Scouts Association (NESA) Jamboree, Virtual, Mar 6 Middle School Girls Only STEM Day, Virtual, Mar 20 STEM Pre-Service Educator Workshop, Philadelphia, Virtual, Mar 13 STEM on Deck, Virtual, Mar 12 & 26
Apr	<ul style="list-style-type: none"> Maryland Regional SeaPerch Challenge, Apr 10 Junior Science & Humanities Symposia (JSHS), Apr 14-17 STEM on Deck, Virtual, Apr 9 & 23

Schedule subject to change