

STEM

UNITED STATES NAVAL ACADEMY
STEM CENTER FOR EDUCATION AND OUTREACH

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CLICK on the
images to learn
more!

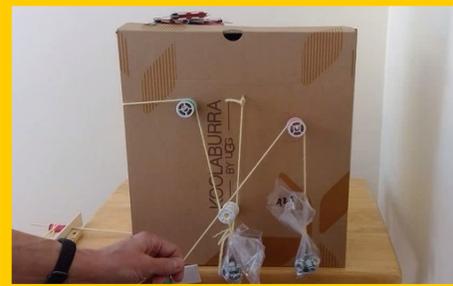


SUMMER 2020



SUMMER STEM VIRTUAL PROGRAM

With support from the Office of Admissions, the STEM Center developed cyber science, aerospace engineering, and computer programming design challenges for high school students from across the nation.



STEM EDUCATOR WORKSHOPS

Week-long, live, and interactive, these professional development sessions were offered for teachers across the country and throughout the DoD school network, and sponsored by ONR, DoDEA, and the USNA Foundation.



SUMMER HEROES YOUTH PROGRAM

Exelon Corp, the Office of Naval Research, and the USNA Foundation supported STEM midshipmen virtual visits to middle school groups in Prince Georges County, Baltimore County, and Baltimore City.



DODEA EDUCATOR WORKSHOPS

The STEM Center implemented virtual training courses for DoDEA Europe and Americas 6th –12th grade teachers. Sessions were offered in real-world engineering and science topics and focused on remote learning strategies.



BEST PRACTICES IN STEM OUTREACH FOR NAVFAC

Reps from NAVFAC (Naval Facilities Engineering Command) sites attended an ONR sponsored best practices workshop, completing design and build activities online with USNA STEM faculty.



SAME VIRTUAL CAMP

A USNA Summer STEM Virtual Program was offered in real time to 100 high school students nationwide on behalf of the Society of American Military Engineers to replace SAME camps cancelled due to the pandemic.



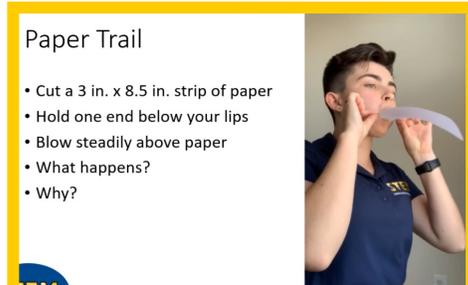
NAVY WEEK: MADISON, WI

As featured in this video provided to the Navy Office of Community Outreach, MIDN 2/C Mitch Jorgensen, Mechanical Engineering and Parachute Team member, shows how to design and test a parachute in this engineering challenge.



IOWA STEM EDUCATOR TRAINING

In collaboration with the United Way of Central Iowa, the USNA STEM Center provided an "Engineering to Explore the Ocean" workshop for teachers. Hands-on activities were related to underwater robotics and marine technology.



Paper Trail

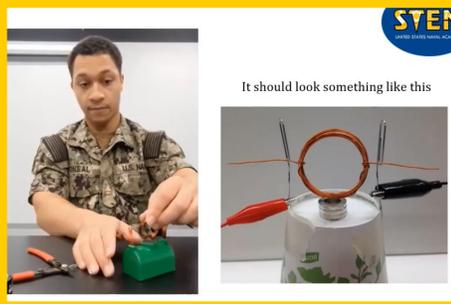
- Cut a 3 in. x 8.5 in. strip of paper
- Hold one end below your lips
- Blow steadily above paper
- What happens?
- Why?

NAVY WEEK: PORTLAND, ME

For the virtual Navy week festivities, ENS Annie Dunigan, Aerospace Engineering, USNA Class of 2020, explored Bernoulli's Principle in her video including activities that can be done at home.

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

**Volgenau Chair
for Education and Outreach**



Materials

- Construction paper
 - Or cardstock
 - Or a paper plate
- Pushpins
- Pennies
- Tape
- Scissors
- Get creative! - cotton swabs, popsicle sticks, etc.



FLEET WEEK: BALTIMORE, MD
MIDN 1/C Nate O'Neal, Electrical Engineering and Computer Engineering, explains how motors and generators work by building a simple model.

NAVY WEEK: SALT LAKE CITY
MIDN 3/C Taylor Connors, Physics, investigates angular momentum by building and testing spinning tops using basic household materials.

ONLINE ACTIVITY: STATIC FRICTION
ENS James Truong, USNA Class of 2020, Physics, has a passion for rock climbing and physics. He shares an experiment to investigate static friction.

UPCOMING EVENTS: FALL 2020

Sept	<ul style="list-style-type: none"> • Best Practices in STEM Outreach: FAA Workshop, Virtual, Sept 9-10 • USA Science and Engineering Festival All Access, Virtual, Sept 26-Oct 3 • STEM on Deck: Newark, NJ, Virtual, Sept 25 • SET Sail STEM Educator Training, Virtual, Sept 23, 26, 30
Oct	<ul style="list-style-type: none"> • Navy Week: Tulsa, OK, Virtual, Oct 5-11 • STEM Spotlight, Virtual, Oct 13 • STEM Pre-Service Teacher Workshop, Bowie State, TBD • Girls Only STEM Day, Livestream, Oct 17 • Girls Only STEM Day School Groups, Virtual, Oct 17-24 • STEM on Deck: New York, NY, Virtual, Oct 24
Nov	<ul style="list-style-type: none"> • STEM on Deck: Philadelphia, PA, Virtual, Nov 7 • USNA Family STEM Day, Virtual, Nov 8 • STEM on Deck: Dallas, TX, Virtual, Nov 21
Dec	<ul style="list-style-type: none"> • 2020 Nice K12 Virtual Cybersecurity Ed Conference, Dec 7

Schedule subject to change