TECHNOLOGIZE

Fall 2021 EDITION

Frederick County hosts the Live Summer Conference in July 2022.

Mary Beth Echeveria, CTE Supervisor for Frederick County Public Schools has been working with a group of talented educators to plan and organize our next conference. The conference hotel is The George Washington in downtown Winchester, VA. The overflow property is the Spring Hill Suites. Contracts for food and lodging are being signed and we expect approximately 150 attendees this summer. Preconference sessions will be offered on Monday, July 25.



Frederick County Technology Education Teachers

(Front row to r) Mary Beth Echeverria (CTE director), Dave Curry (ABMS), Ron Vickers (SHS), (JWH), Kristin Guthrie (JWH), Heather Godwin (new Aylor MS), Lyndsay Almarode (SHS), Austin German (new Aylor MS), Dan Friend (MHS),

(Back row I to r) Angie Craig (ABMS), Perry McKay (FCMS), Chris Poniris (FCMS), Jeff Holmes (MHS), Brittany Carper (SHS), Mike Goddard (JWMS), Matt Bra (MHS), Josh Benton (JWH)



We hope several local manufacturing plants will offer tours to coincide with the theme this year of: "Manufacturing the Future." We are working with the local Economic Development Authority to offer tours. Registration is online and most of us use Perkins Grant funding from our CTE Director to attend. Most meals are included in the package. You can reserve a conference T-shirt with this year's theme on the front from a link when you register. It will be available for pickup on arrival. A call

for presenters has been extended. Please consider sharing your ideas and talents with the rest of us. There is much to do in the Frederick County area so consider extending your stay to enrich your experience. See this local video for more information: https://www.youtube.com/watch? v=_FiHQSYy63g&list=TLGG_2aQ3D_2o2EwNjA4MjAyMQ

Regional TOY & POY Applications are Due!

Your VTEEA Board of Directors has directed regional presidents to identify and report back, teachers and programs that show exemplary teaching in our subject area. Our website has the application forms and it is easier to fill out than in the past for the many awards given at the summer conference. Look for https://www.vteea.org/awards on the left hand side under the topic Awards and the application will appear. Please verify that your qualifications match what is listed before applying. Tech Ed teachers are known to not prefer to nominate themselves or blow their own horn. We all know great teachers and programs. Please nominate some one and let them know about it so they will consider applying. BJ Scott is in charge of statewide winners and really wants to have an elementary, middle, and high school teacher and program from all 6 regions to have to choose from. Don't put this off another day!







adding new technology to your classroom this year?



3D PRINTERS LASER CUTTERS **3D SCANNERS WIDE FORMAT PRINTERS CNC ROUTERS & PLASMA CUTTERS ROBOTICS & ELECTRONICS DRONES & ROVER STEM KITS COMPACT STEM TRAINING KITS AND MUCH MORE!**







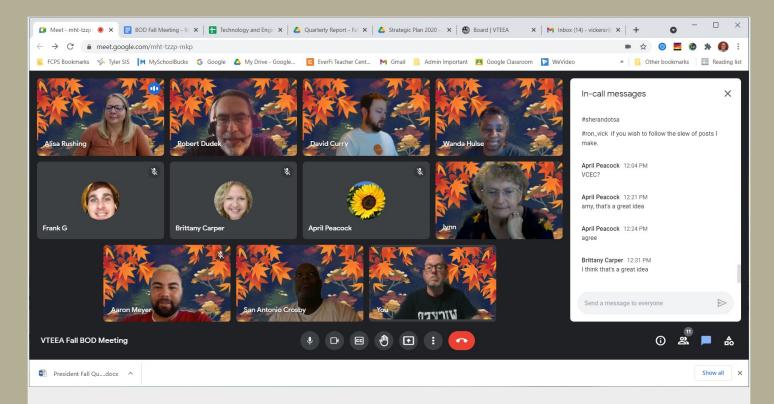












Your Board of Directors are working for you!

Highlight of this meeting was the decision to print and mail (usps) the Fall Technologize newsletter to every Technology Education teacher in the state. Alisa took charge after Ron Vickers submitted the final copy to her. The Chesterfield County print shop printed 900 copies in full color, folded and stapled then for about \$1,000. Mailing adds another expense. The issue contains ads to the value of \$1000 and we will try to sell more ads in future issues to make this a zero sum budget item. Hopefully this issue in the hands of folks that do not know about VTEEA will prompt membership. VTEEA needs to vastly increase the percentage of practicing Technology Education and Engineering teachers in the state. Refer to the challenge on page 1 that Frederick County has thrown out!

Board members then heard reports from regional presidents and committee chairs. A good deal of the time was discussion on the planning needed for the upcoming annual conference. One difference is that conference T-shirts will be on the registration form where folks can pre order them for pickup the day of the conference in Winchester.

Outstanding Accomplishment Recognized

Amy Sabarre was elected to serve as Governor's STEM Advisory Board Chair for the next 4 years. She and other board members will be traveling around the state over the next year to educate folks about their mission. She was also awarded Code VA Admin of the year.

Your association is seeking applicants for the VTEEA Executive Secretary/Treasurer position.

The (paid) position requires a four year commitment (August 1, 2021 to August 31, 2025). The Executive Secretary/ Treasurer maintains records of membership and manages the fiscal affairs of the Association under the direction of the President and the Board of Directors.

Interested applicants must email the Executive Committee

at <u>vteea1958@gmail.com</u>. In your email, provide your phone number and mailing address. Also, include a brief description of your financial management experience.



Presents the Snapmaker 2.0 3 in 1 3D printer, Laser Engraver and CNC Router.



Contact RAWL at <u>info@rawledu.com</u>. For a quote or to schedule a demo, visit our website: rawledu.com

RAWL is also a proud partner of:







Get to Know Your Vendor Support

By Ron Vickers

With every new piece of equipment purchased for our labs, the Technology Education teacher, is given responsibility to learn about what to do when things go wrong. Recently our laser was printing skewed designs and it looked like the x-axis lo-



Virginia Students Take Flight in Aviation Brittany Carper

On October 29, ProJet Aviation hosted the 15th Annual Aviation Education and Career Expo at the Leesburg Executive Airport in Leesburg, VA. The Expo consists of industry leaders, vendors, aircraft displays, guest speakers, amazing prizes, demonstrations, and scholarships. To date, the event has given out over \$1.3 million in flight school, monetary, and college scholarships, as well as awarded internships, a bit over \$133K of that was given Friday. None of which would be possible without the generous support from the sponsors and vendors that the students have the opportunity to interact with at the event, "We want to provide them with information and resources that will help them look beyond the horizon, and develop a VISION for their future," says Expo organizers.

This year's event hosted approximately 800 students and 71 vendors. The expo featured demonstrations from the US Air Force Honor Guard Drill Team, a US Army Golden Knights parachute jump (Golden Knights were unable to perform due to weather, but did still present), and a Garda World Federal Services K-9 demo. Typically this day has several aircraft on site, offering a chance for students to talk to pilots and operators, as well as get an up close look at the planes. Due to the weather this year, the aircrafts were not as readily available unfortunately.

A range of careers such as NASA, pilots, flight attendants, Medevac flight nurses, avionics, Coast Guard Search & Rescue, maintenance mechanics, air charter operators, Homeland Security, NTSB, air traffic controllers, FAA, military, aircraft sales, publications, hospitality, transportation security, agricultural aviation, flight instruction, aviation fuel, aerial mapping, corporate flight departments, in-flight catering, FBI, and much, much more were all represented. With the aging workforce and new challenges presented by the pandemic, events like this are critical to exposing our students to the demands of this industry that affect everyone globally.

Take a look at videos from past events: https://projetaviation.com/videos/

cation was getting lost. I had known about cleaning the encoder strip and even read about it in the manual. Jeremy Trumble from Diversified Educational Systems answered my email request on the same day and gave me some helpful ideas. The next day he was able to stop by to further diagnose the problem and we were back into business. While he was here I admit I learned to use the Epilogue Manager so my noting speeds and power in a little black book would not be necessary again. How I ever missed out on that great software that came with y laser is embarrassing. The power of maintaining a relationship with your vendor cannot be overstated. They want us to be successful with our equipment and we sometimes need their knowledge. Don't wait, give then a call!

Resources:

ProJet Annual Aviation Education and Career Expohttps://projetaviation.com/aviation-expo/

NEXTGEN Aviators - a 3 Hour Immersive Aviation Experience - https://www.nextgenaviators.aero/

If you're looking for funding to incorporate themes in aviation in your classroom, you can consider The Virginia Department of Aviation's Teachers Grant Program by visiting www.doav.virginia.gov/programs-and-services/education/.



Nick Sabo, Executive Director of The Winchester Regional Airport Authority, shared with our district the following Aviation related scholarships that are also sponsored by the Virginia Department of Aviation. See the links below for specific information regarding each scholarship.

<u>John R. Lillard Aviation Scholarship Program</u> (for Virginia high school students)

<u>Kenneth R. Scott Aviation Scholarship Program</u> (for Virginia high school students)

<u>Willard G. Plentl, Sr. Aviation Scholarship Program</u> (for Virginia high school students)

Get Equipped for New Subjects

micro:bit & Python

Arduino & C

Robotics

Cybersecurity

Pre-Engineering

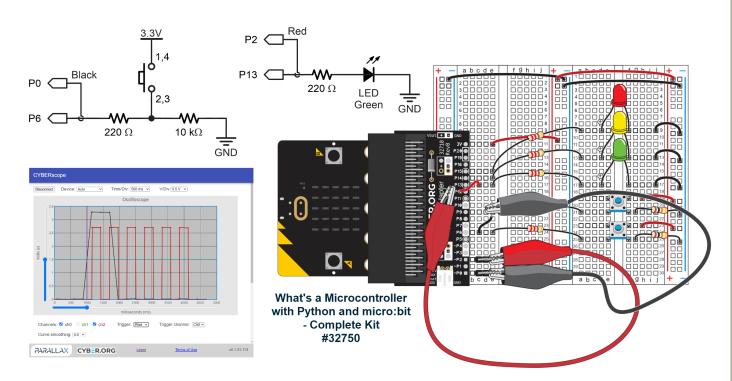


cyber:bot Robot Kit - with micro:bit #32700

Free hands-on Educator Workshops via Zoom

The Spring 2022 schedule is posted!

Apply now: www.parallax.com/events



Class Packs
 Curriculum
 Software
 Educator Workshops
 Educator Hotline



equip your genius www.parallax.com learn.parallax.com

STEM Lesson Tips and Ideas for Educators

STEM education has become more and more important over the years as teachers and students alike realize how crucial a wellrounded lesson plan is. Finding ways to relate science, math, and technology concepts to the real world can be tricky, however, and yet this is one of the best ways to ensure a child's interest in those topics. Fortunately, there are several resources available online, including some from the Virginia Technology and Engineering Education Association. Staying on top of the latest news can be of help as well, especially when it comes to forming a lesson plan that engages kids with solutions to reallife problems. Think about how you can combine these lessons and projects with other important concepts, such as working in a team or learning outside of the classroom.

Boost your connections

One fun way to get kids more involved in learning is to connect with other STEM classrooms or to find local businesses that incor-

porate science and technology concepts into their daily operations for a fun field trip idea. If you've been thinking about going back to school for your master's degree, consider focusing on a STEM field so you can become more knowledgeable about those concepts and network with new connections at the same time. This is a great way to get to know other people who share the same interests and might be beneficial to your classroom down the road, and you can learn at your own pace with online courses.

Start a conversation

When it comes to staying in the classroom, one of the best ways to get your students interested in STEM learning is to talk to them about their concerns regarding the world around them or take a survey offering a few different problems people in your city face and how they can be solved. Create an age-appropriate project or activity that allows students to share ideas on things like overcrowding, traffic issues, or environmental concerns. If possible, give them access to real resources, such as email addresses for local government officials who can provide answers to their

questions.

Give them role models

Once you've started a conversation in the classroom, find out what STEM areas your students are interested in the most and look

for ways to <u>connect</u> the lesson to a real-life role model. This can be a celebrity; for instance, Queen guitarist Brian May has a Ph.D. in astrophysics, while actress Natalie Portman has been published in scientific journals. Check out TED Talks to find well-known members of the STEM community and present the <u>videos</u> to your students, or better yet, look for local individuals who have contributed to a STEM field and ask them to give a talk to the classroom.

Utilize simple tools

Videos are wonderful resources when it comes to teaching science, math, and technology concepts, but it's important to incorporate simple tools that will make hands-on challenges fun as well, whether you're coming up with STEM lessons for an elementary classroom or a group of high school students. Utilizing toys like Legos, building sets, and Play -Doh can be just as effective as high-end tech for teaching certain concepts no matter the age group, and these familiar objects can help young people connect more easily to the lesson.

Coming up with an engaging and informative STEM lesson doesn't have to be stressful. Think about how you can utilize the tools you already have in the classroom, look for <u>online</u> resources, and most importantly, make it fun

Have a question for the <u>Virginia</u> <u>Technology and Engineering Education Association</u>? Get in touch via email at vteea1958@gmail.com.

Photo via <u>Pexels</u>



Focus on Us!

Submitted by Ron Vickers

Major Tom Bourne—Long Term Teacher

Virginia Military Institute Civil Engineering

Transferred to Old Domion University and studied Technology Education

Started Masters degree through ODU as well, but after returning from Iraq War was told I had waited too long to finish Masters, and would have to start over.

Started Career at Norview Middle school. Taught in Norfolk for 7 years, won ITEEA Technology Program of the year with Bob Shelton Been a TSA Advisor since 1993. Was on TSA CRC until military career kept interrupting Nationals.



Started TSA Chapter at Louisa County MS in 1998, at LCHS in 1999. Transferred to HS in 2001, and joined the Army after 9/11. Spent 4 years enlisted, and was commissioned as an officer in 2005. I have been a competitive Pistol shooter and have been on the US Army Reserve Pistol Team for the last 16 yrs, including becoming a member of the President's Hundred.

I was VTEEA President and have supported Local, State, and National TSA teams for 28+ years, as well as being a Regional and State advisor many times. This is my 29th year teaching, Materials and Processes is my favorite course, but I have taught Energy and Power, Construction Tech, Communications, Robotics, Tech Foundations and Transfer.

I am teaching in Louisa County HS until I retire, which could happen as soon as next year, but most likely will not happen for 5 or more years.

Call me if you need anything else. Tom

804-986-5264



John Trelawny- Teaching Career Switcher

Business, Marketing, Technology Education Teacher, WCHS-TV Advisor, NHS Co-Chair, Boys' Soccer Head Coach and this year a Technology Education teacher at Central High School He is a a real career switcher!

A 2017 graduate of James Madison University, John has been integral in starting a technology education program in his school. He established their first-ever TSA chapter and was on the committee that wrote the grant to help start their school's television station. John's work to bring more choices and learning opportunities to Central has been very well-received by his students as

they have seen an increased demand to begin offering additional TechEd classes, such as Architectural Drawing and Design as well as Engineering Drawing and Design.

John visited me at my school on a professional development day for him and we had the chance to talk about a slew of topics on what we do. He observed me with a couple of classes and I got him to join VTEEA online in the same day! The CTE Director in Shenandoah County worked with me in Page County several years ago and Todd Lynn is striving to increase Technology Education electives in the county that historically has not had any programs. The only other existing program is a great teacher at Peter Muhler Middle School.

Christine M. Richmond

teaches Innovations and Inventions and Robotics. She had the only other existing TSA Chapter in the county at her middle school. Christine spent 15 years as a science teacher prior to switching to Technology Edcation. As she develops the classes taught in her building she focuses on teaching the competencies through authentic PBL. A passion for hers is also to encourage more young girls to find a

love of STEM. The first year Robotics was offered there was 1 girl. This is the third year and now there are 20! "We



are a rural community, but our kids deserve the same opportunities that are offered to students in the city. By working with Todd, our CTE director, and John at the high school, we are paving the way for our students to be competitive with their city peers when it comes to Technology Education."



20,000 kids; 70,000 TeacherGeek activity packs; 1 awesome summer program.

Miami-Dade Schools & TeacherGeek teamed up to address the unprecedented

Miami-Dade Schools & TeacherGeek teamed up to address the pandemic.

academic, physical, and social emotional needs caused by the pandemic.

Real Engineering No Matter Where You Are!

- Printed Go Guide Included Activity packs include the Go Guide which gets kids started, guides their inquiry, and culminates and a challenge that pushes them to create their own unique designs.
- Ready for Distance Learning; Designed for Equity Activity packs are redesigned to provide equity for at-home learners. The activity pack has everything kids need for the activity, save common materials.
- Bulk Discounts on Singles (up to 40% off) Hugely discounted single activity packs can now be delivered directly to your students' homes.



Learn more at TeacherGeek.com!

What's Happening Around the State?

By Ron Vickers

Each regional president is coordinating a back to school professional development session to start us off. If you know of other gatherings please share and it will get reported.

Valley Region - Brittany Carper hosted an in person and zoom meeting ™ Tue Sep 8pm -

5:30pm at Sherando High School for a Valley Region Fall Kick-Off. "The Valley Rocks" brand was introduced and a limited number of vinyl stickers were made. She even





mailed one to key individuals. This compliments the VTEEA sticker that was included in the swag box at conference. We would love to see the

other regions come up with their own brand.



On Oct. 15, several Valley teachers got together at Three Notch'd Valley Collab House Brewery in Harrisonburg to socialize and swap trade secrets. I got to know Maura a lot better! Announcing a Spring Social in Augusta County is in the works.!

November 20th planned for Harrisonburg City @ Thomas Harrison Middle School - topics in CNC



with Mike Jennings. Maybe right before Thanksgiving break or not enough lead time very little interest was shown so this event was canceled and will get rescheduled for later in the year.

December 4 - Frederick Co @ James Wood High School - Dishwasher Safe Decals with Kristin Guthrie



Join us on Saturday, December 4th at James Wood High School. Around Back at the Tech Ed Garage Door. From: 8:30 - 1:30 or 2

We will be creating a 24oz. plastic "Starbuck" cup. These are created with Heat Transfer Vinyl and HTV Anything. This is a material that can make stickers Dishwasher Safe.

If you are interested in Joining us please reply to the email.

PD Points will be given for this event.









Getting to work with Kristin in her graphics lab on a Saturday worked well for half a dozen Valley teachers . Not only will we receive recertification points for the day but also a coupe take home projects. Notice the

new Valley Rocks logo and cool T-shirts we made.

February- Date TBD Kevin Mahney at Western Albemarle High will host us for a winter workshop.

March - Date TBD Shenandoah Co @ Central High School - topics TBD with John Trelawny Southwestern Region—Dustin Carter held a zoom meeting at the beginning of the year and submitted the following: Caleb Whitman, one of our high

school engineering/TSA students designed and fabricated a brace to hold a magnifying sheet on a desk for a vision impaired student at the middle school.



We would like to report on a professional development in the region, if you have an idea or would host an event please email today! dustincarter@galaxschools.us.

Northern Region- Robb Dudek has not reported any events in his region. If you would like to host a PD day or organize an event please contact Robb today!

Tidewater Region—San Antonio Crosby has not reported any events in his region.
If you would like to host a PD day or organize and event please contact San Antonio today!

Blue Ridge Region— April Peacock has not reported any events in her region. If you would like to host a PD day or organize and event please contact April today!!

South Central Region—Alisa Rushing is pleased to announce that Kenny Bouwens has accepted the role of president. Kenny is the Director of CTE-Steam & Innovation at Louisa County Public Schools. I heard him say, "We'll have a BBQ in my backyard and then we can



Kenny Bouwens

make some
things with
the laser in
my garage."
If you did
not know
yet, Kenny
maintains a
presence
on FB.
Check him
out.

Comments and suggestions are welcome! Send me a note if you see any errors. Ron Vickers, Editor

vickersr@fpsk12.net or text

540-860-2807



The **Fall Leadership Academy** was held November 19-21, 2021 at Camp Piankatank in Hartfield, VA. The Fall Leadership Academy provided an opportunity for students to increase their knowledge about technology and leadership in TSA. Students and teachers received two nights lodging, four meals and a camp tee-shirt in the price of registration, while the students was also be able to take part in leadership sessions and leadership activities

planned and provided by the executive state officer team.

The executive state officers planned exciting activities based on the theme European Heist. On Saturday, there was leadership sessions for the students to attend of their choosing and some activities outside including some low ropes course, climbing wall and archery to name a few of the outside activities.



Six of the fall events was culminated at Leader-ship Academy and they include Dragster, Flight and Structural Engineering for both middle and high school. Of course all three meals was provided on Saturday. Sunday morning included a hot breakfast before the closing ceremony to the end of the weekend. The

executive team feels that this Leadership Academy

will be one to remember.



Due to the ongoing COVID-19 pandemic, it is asked that you be fully vaccinated or have a negative COVID test within three days of the start of Leadership Academy.

Masks will be worn during all indoor activities except when eating or sleeping.

Registration for the Leadership Academy was \$130.



BJ Scott reported that about 60 trophies were awarded at the conclusion of the closing session. As an advisor at my first attendance, I was very pleased with the amount of information and fun my students received.

Byron Clements has retired from teaching at John Hanley High in Winchester. We thank him for so many years of service and celebrate his 50th anniversary with his wife. Enjoy your retirement Byron!



Some of you may have worked with **Jason E. Perry** over the years. It is with a sad heart that I share he passed. Jason served in many VTEEA roles including president in 2002-2003. Jason was a creative, smart, and friendly professional.

George R. Willcox is Retiring!

George has worked over 47 years in our CTE curriculum. Forty one of this has been in state government. Every Technology Education teacher in the state knows this man and something of the many things he accomplishes for VTEEA. I recall George from my very early years of teaching when the commonwealth had 5 Principals throughout the state and Tom Hughes was the overall coordinator. During my term as your President, George was invaluable to me in keeping up with the many duties of office. I can't really grasp VTEEA without George's helping hands. I hope he will write a



memoir to fill out the skeleton history of our association I wrote back in July of 2018 for our 60th anniversary. You can view this entire document in this link https://drive.google.com/file/

d/17H9ps5vB_Zq30WAhB0t5I0sQdvV _v9Vo/view



I quote from this pamphlet in a selection by Thomas A Hughes on page 12, "As Paul Harvey might have said, "There is more to the story." Each significant accomplishment has an energizing force to make it happen. An association, business, or any organization requires at least one personpreferably more-to be the inspiration, spark, motivator, or activator to cause change to happen-to have vision, desire, will, and ability to bring dreams into reality. In fairness to reporting observations over these several years, the top five energizers to name are Joe Schad, who stands out for beginning the organization; Art Schwartz, who was the energizer of those first efforts to promote an up-todate profession; Bill Dugger, who built unprecedented membership, conference participation, and curriculum reform; John Monroe, who enhanced learning through a student organization and promoted it so that it became a significant part of the curriculum; and George R. Willcox, who continually encouraged association activities and development through some of the most trying times of these many years.

Many of the files we have preserved in our association was be-



cause of George's careful attention to details.

The last day George will be in office will be December 30, 2021. Dr. Basham sent out a notice with his retirement and a link to record a one minute video clip helping us develop a tribute to George and his lifetime of service to the Commonwealth.



Dr. Phil Reed Has Serious News!

ODU recently completed a review of all programs, and one recommendation is to "consider discontinuing technology education due to low enrollment." Enrollments across teacher education programs are at historic lows and the technology education program has taken significant steps for marketing and program improvement. As a supporter of career and technical education and the technology education program at ODU, I ask for your help to (1) educate the ODU administration on the importance of this program and (2) identify ways our community could support this program.

Please take 10 minutes to send an email to Provost Austin Agho (aagho@odu.edu), Interim Dean Tammi Dice (tmilike@odu.edu), Department Chair Mickey Kosloski (mkoslosk@odu.edu), and copy to me as the TE Program Director (preed@odu.edu).

12

Engage with Students



Design & Printing

3D Herndon is the leading source of **3D printing** expertise and equipment for Virginia educators - Sales, Service, Knowledge and Resources for the classroom - since 2014.

** Special discounts for educators **

3DHerndon.com 3D@3DHerndon.com

(800) 627-4886

- @ @3DHerndonStudio
- f facebook.com/3DHerndon

Stop by our new showroom and training center 590 Herndon Parkway, Suite 120, Herndon, VA 20170

3D Herndon
From idea to object

Over the centuries, many First Ladies have offered words of wisdom and encouragement, whether through private letters that later became public, or speaking directly to gathered assemblies or journalists. Here are some of those inspirational words, spoken by strong women who, in many cases, were not too keen on assuming a role primarily defined by their husband, but embraced it nonetheless, and made a significant contribution to American history in their own right.

I have learned from experience that the greater part of our happiness or misery depends upon our dispositions, and not upon our circumstances.

— Martha Washington

Great difficulties may be surmounted by patience and perseverance.

Abigail Adams

Under all circumstances we must never desert ourselves.

— Louisa Adams

Louisa Adams, the wife of John Quincy Adams, was referring primarily to her fellow women in the quote above. She herself faced a hard time as the first First Lady to be born outside the United States (she was English) — a situation not repeated until 192 years later when Melania Trump became First Lady.

Woman's mind is as strong as man's — equal in all things and his superior in some.

Lucy Hayes

When Lucy Hayes entered the White House in 1877 as the wife of President Rutherford B. Hayes, she became the first First Lady to hold a college degree. As a staunch advocate for Black Americans, she was the first person to invite a Black musician to appear at the White House.

We do not have to become heroes overnight. Just a step at a time meeting each thing as it comes up, seeing it as not as dreadful as it appears, discovering that we have the strength to stare it down.

— Eleanor Roosevelt

Every moment one lives is different from the other. The good, the bad, hardship, the joy, the tragedy, love, and happiness are all interwoven into one single, indescribable whole that is called life. You cannot separate the good from the bad. And perhaps there is no need to do so, either.

— Jackie Kennedy

You never know what you can do until you have to do it.

Betty Ford

If human beings are perceived as potentials rather than problems, as possessing strengths instead of weaknesses, as unlimited rather than dull and unresponsive, then they thrive and grow to their capabilities.

— Barbara Bush

You may not always have a comfortable life. And you will not always be able to solve all the world's problems all at once. But don't ever underestimate the impact you can have, because history has shown us that courage can be contagious, and hope can take on a life of its own.

— Michelle Obama

The longer I work in education (going on 42 years now), the more I realize I should really listen to the many females in my life. I salute all the women that lead and helped our association grow.

-Ron Vickers