

## JASON LEARNING VIRTUAL NATIONAL CONFERENCE 2020 CONFERENCE SCHEDULE & BREAKOUT SESSIONS

July 7-8 and 14-15 | All times Eastern Daylight Time

In each breakout block, there will be 5 sessions to choose from (Options A-E).

Please sign up for only **ONE** option within each block.

### TUESDAY, JULY 7th

**11:30am - 11:45am**      **Welcome Address** with Dr. Eleanor Smalley, CEO, JASON Learning

**11:45am - 12:45pm**      **Keynote: "Warfighter, Shipdriver, Problem Solver: How Sailors Use Science and Math Every Day in the United States Navy"**  
 Lt. Angelina Violante, Surface Warfare Officer, USS FITZGERALD (DDG 62), United States Navy  
*Lieutenant Angie Violante, a Surface Warfare Officer and former JASON XIV Argonaut, describes how the foundations of science and math are used daily in at-sea operations all over the world: sailing in rough seas, employing complex radar and weapons systems, and quick mental math during routine maneuvers all require going "back to basics."*

**1:00pm - 2:00pm**      **Tuesday July 7 - Breakout Block 1**

<b>Option A</b>	<b>Amplitude &amp; Frequency: Up Close with Audacity.</b> <i>K-12, Physical Science</i> Audacity is a free, open-source, cross-platform audio software used in JASON's World of Waves curriculum. Educators working with groups of all ages will learn how to leverage this software with JASON's lessons to help students explore patterns and relationships between amplitude and frequency,, and visualize parts of a wave.
<b>Option B</b>	<b>The Challenges of Conducting Research in Emergency Situations, Dr. Bryan Cotton, Professor, Center for Translational Injury Research.</b> <i>K-12, Life Science</i> Participants will learn about the clinical trials process and the challenges associated with trials conducted in the emergency department. Doctors from the University of Texas, Medical Center in Houston will discuss two trauma clinical trials that evaluate interventions to help treat shock resulting from severe blood loss (hemorrhagic) and problems with blood clotting (coagulopathy).
<b>Option C</b>	<b>Navigating JASON for Newcomers.</b> <i>All Audiences</i> Trainers will guide participants through the JASON platform, including an overview of JASON's philosophy, curricula, and available resources. Trainers will demonstrate how to access standard alignments, teacher resources, and lesson plans, and share tools and search strategies to help educators find the resources best suited for their classroom situations.
<b>Option D</b>	<b>An Amusing Approach to Algebra.</b> <i>MS/HS, Algebra</i> Algebra is a difficult subject for which to provide contextual experiences for students. This can make it difficult for students to understand. Experience some of the context-based opportunities provided by ARGO Integrated Algebra, including a quest designed around planning and proposing an amusement park to investors.
<b>Option E</b>	<b>Starting Off Right for Remote Classrooms - Setting Norms &amp; Building Community.</b> <i>All Audiences</i> Explore strategies to build a classroom culture and connect to learners in a remote or hybrid environment. Trainers will guide discussions and learning experiences that will engage participants in planning norms and expectations for creating and facilitating an effective online community.

2:15pm - 3:15pm

**Joint Keynote: “Safety and Health Considerations in the Academic Environment” and “CoVID-19: What have we learned so far?”**

Dr. Robert Emery, Vice President for Safety, Health, Environment & Risk Management for The University of Texas Health Science Center at Houston

*Educators will receive basic guidance relative to the unique hazards present in the academic environment as well as strategies for minimizing their impact on students and staff. The goal is to provide a learning environment that allows students to go home each day as safe and as healthy as they arrived.*

Dr. Luis Ostrosky-Zeichner, MD, FACP, FIDSA, FSHEA, FECMM, CMQ, Professor and Vice-Chairman of Medicine for Healthcare Quality, Division of Infectious Diseases University of Texas McGovern Medical School, Houston, TX

*In this presentation Dr. Ostrosky-Zeichner will review the origin and spread of the CoVID-19 pandemic along with the known and unknown facts about the virus, providing his outlook for the future based on lessons learned.*

3:30pm - 4:30pm

**Tuesday, July 7 - Breakout Block 2**

<p><b>Option A</b></p>	<p><b>New Curriculum! STEM vs. Disease.</b> <i>MS/HS, Biology/CTE</i> How are illnesses diagnosed and treated? Who are some of the essential people involved in the process? Participants will experience one of JASON Learning’s newest curricula, STEM vs. Disease - Cancer. Take a journey with Sydney, a cancer survivor, as you develop a deep understanding of the components of blood and the role they play in disease.</p>
<p><b>Option B</b></p>	<p><b>Panel Discussion: Problem Based Learning with JASON.</b> <i>All Audiences</i> JASON offers a multitude of problem-based learning opportunities for students in a variety of STEM fields. Join this discussion to hear the creative ways educators are leveraging JASON “Field Assignments”, Design Thinking lessons, games, and more to engage students in meaningful, real-world challenges.</p>
<p><b>Option C</b></p>	<p><b>The Cutting Edge of Modern Medicine.</b> <i>MS/HS, Life Science/CTE/Innovation</i> Join Terry Sharrer, former Health Sciences Curator at the Smithsonian’s National Museum of American History and author of Cutting Edge, JASON’s new collection of articles around innovations in medicine. Terry will share his newest work-in-progress around the rise and fall of modern pandemics and explore opportunities to engage students in the discussion around modern medicine.</p>
<p><b>Option D</b></p>	<p><b>Living Wonders of the Sea.</b> <i>ES, Life Science/Technology</i> Come along as we dive down into our Immersion Learning Adventure Series. Explore the living wonders of the sea and how technology has furthered our understanding of them. Lessons and resources further student understanding of the relationship between structure and function and the methods Dr. Ballard uses to explore.</p>
<p><b>Option E</b></p>	<p><b>Leveraging Desmos with JASON.</b> <i>4-12, General Science/Math</i> Explore how to take JASON lessons that integrate math and graphing skills to the next level by leveraging Desmos - a free digital graphing and teaching tool available on the web. Whether learning in a remote or hybrid environment, the Desmos Activity Builder offers a way for educators to make lessons digitally interactive.</p>

## WEDNESDAY, JULY 8th

11:45am - 12:45pm

### Keynote: "Recycling Into the Future: Exploring the Closed Loop"

Brandi Harleaux, Chief Operations Officer, South Post Oak Recycling Center (SPORC), Houston, TX. Member at Large to the Institute of Scrap Recycling Industries, Inc. (ISRI) Board of Directors  
*Learn about the innovation across and career opportunities available in the recycling industry. Winner of 2020 Recycling Video & Poster Contest will be announced during this session.*

1:00pm - 2:00pm

### Wednesday, July 8 - Breakout Block 1

Option A	<b>Recycling Activities Collection.</b> <i>K-12, Environmental/Interdisciplinary</i> Explore JASON's Institute of Scrap Recycling (ISRI) lessons to discover ways to excite and motivate students, both in the traditional classroom and remotely, to reduce, reuse, and recycle in the spirit of conserving resources and reducing our human impact.
Option B	<b>The Birds and the Bees with Sam Droege.</b> <i>All Audiences</i> Sam will share his journey from childhood bird watcher to the Head of the Native Bee Lab - with some layovers along the way with the amphibians and butterflies. We'll explore the important role bees play in the balance of life as we know it - both globally and locally - and we'll see how Sam's research is helping us understand these amazing pollinators.
Option C	<b>Panel Discussion: Impact of the Argonaut Experience.</b> <i>All Audiences</i> JASON's Argonaut program has engaged over 700 students and educators in hands-on, scientific fieldwork. Hear from a panel of former student and teacher Argonauts about the impact their field experiences have had on life and work. Teachers will consider the impact of the Argonaut program and encourage their students and other teachers to apply.
Option D	<b>ARGOMath - Geometry.</b> <i>MS/HS, Math</i> Become a student and jump into some context-based activities provided in the ARGO Geometry curriculum. Use slope-intercept form to describe the path of a running back. Create a formula to determine the cost of a flooring job. Use the context of building a Tiny House to teach the skills of perimeter, area, and volume.
Option E	<b>In the Field - On &amp; Offline with JASON.</b> <i>4-10, General Science</i> Get students out "into the field", whether on school grounds or in the backyard, engaging in science and engineering practices, and developing 21st century competencies. Methods will illustrate how to get kids doing "real science" in either remote or in-class settings - and how to leverage the online environment for collaborating, sharing, and analyzing group data.

2:15pm - 3:15pm

### Keynote: "The Business of Resilience"

Talib Graves-Manns, Entrepreneur & Innovator  
*Adaptability, perseverance, and resilience aren't just key to innovation, they're key to sustaining business during crisis and changing conditions. Talib will share his guiding principles and approaches to keeping business alive, and his personal journey working towards change for populations who are under-represented in the entrepreneurial world in America.*

**3:30pm - 4:30pm**      **Wednesday, July 8 - Breakout Block 2**

<p><b>Option A</b></p>	<p><b>Design Like an Entrepreneur.</b> <i>4-12, General Science/CTE/Engineering</i>          JASON’s Design &amp; Pitch collection challenges students to adopt an entrepreneurial mindset when solving real-world problems and to develop their 21st century skills. Through “Flashy Fashion”, participants will sample parts of the Design &amp; Pitch cycle while designing a customizable piece of clothing that harnesses the power of LED lighting, and then pitching it “Shark Tank” style.</p>
<p><b>Option B</b></p>	<p><b>Into the Lab &amp; Field with Sam Droege.</b> <i>K-12, Environmental/Life Science</i>          Join Sam Droege, Head of the USGS Native Bee Lab, as he takes us for a real-time exploration of his lab and garden at the Patuxent Research Center. Sam will share highlights from his research including how bees are collected out in the field and brought back into the lab for identification. This session will include suggestions and ideas for simple activities that educators and students can do in their own backyards.</p>
<p><b>Option C</b></p>	<p><b>Amazon Adventures: Social-emotional Learning with The Bug Chicks.</b> <i>K-12, SEL/Environmental/Life Science</i>          Join JASON partners Kristie Reddick and Jessica Honaker of The Bug Chicks as they share the behind-the-scenes narrative of their Amazon adventures with the JASON Argonauts, and how bugs have the power to inspire and empower people while challenging perceptions of ourselves, others and the natural world. Brainstorm simple exercises that students can do - even in their backyards or schoolyards - to observe the beauty and wonder of arthropods.</p>
<p><b>Option D</b></p>	<p><b>New Curriculum! Internet for All.</b> <i>HS Science, Math, CTE</i>          Rural communities across the country are developing and implementing plans to provide broadband internet access to ALL of their citizens. Learn about the science behind broadband access, leverage math skills to identify community needs and equip your students to develop and implement a plan to support first time users. This curriculum is the result of public/private collaboration between Doddridge County Schools in W.V., Citynet and JASON Learning.</p>
<p><b>Option E</b></p>	<p><b>Leveraging JASON for Remote Learning</b> <i>All Audiences</i>          Learn how to create meaningful lessons that work in both remote or hybrid classrooms by exploring JASON’s “Grab-and-Go” resources and HyperDocs (a digital document that centralizes the components of a learning cycle). Panelists from Fairfax County Public Schools, VA will join JASON trainers to share their insights into creating engaging resources that blend seamlessly into your classroom.</p>

## TUESDAY, JULY 14th

**11:30am - 11:45am**      **Welcome Address**  
 Dr. Eleanor Smalley, CEO, JASON Learning

**11:45am - 12:45pm**      **Keynote: “From Constants to Units”**  
 Dr. Darine Haddad, Physicist, National Institute of Standards and Technology  
*The units we use to measure everything have changed forever! On May 20 2019, approximately 60 countries met in Versailles at the 26th General Conference of Weights and Measures and voted to revise the International System of Units. It was a culmination of over two centuries of ideas and experiments to create a system of measurements linked to nature. Join Darine as she describes this transition from basing units on physical artifacts to natural phenomena, and hear her story of how she became a physicist at NIST.*

**1:00pm - 2:00pm**      **Tuesday, July 14 - Breakout Block 1**

<b>Option A</b>	<b>New Curriculum! Universal Constants.</b> <i>HS, Physical Science/Math Connections</i> Did you know our definition of the kilogram has changed? Big changes in the way we define the units that make up the International System of Units (SI) are helping answer questions about the smallest and largest phenomena in the universe. In JASON Learning’s new curriculum, participants will say goodbye to the last artifact, the kilogram, and hello to the exciting field of metrology.
<b>Option B</b>	<b>Panel Discussion: Addressing Equity Through JASON.</b> <i>All Audiences</i> Superintendents reflect on equity issues in STEM and the challenges that exist in providing meaningful content and access for all. Join this important and timely discussion led by a panel of Superintendents from districts implementing JASON.
<b>Option C</b>	<b>Climate: A Systems Model.</b> <i>MS, Earth Science</i> Understanding Climate Change requires that students have a conceptual working model of how climate works in general. Build a systems model of climate in this session, showing causal relationships between the components that impact climate, and predicting the impact of climate modifiers such as mountains and ocean currents on a region.
<b>Option D</b>	<b>Awakening the M in JASON’s STEM Curricula.</b> <i>MS/HS, Math/Physical Science</i> Discover the opportunities for students to develop their understanding of mathematical concepts and engage in math practices through some of JASON’s interdisciplinary curricula with math connections. We will explore how the “M” or Math is integrated into JASON’s STEM curricula. Whether you are a STEM teacher or a Math teacher, this session will highlight how to inspire students to see how math is used as part of STEM experiences.
<b>Option E</b>	<b>Leveraging JASON for Remote Learning.</b> <i>All Audiences</i> Learn how to create meaningful lessons that work in both remote or hybrid classrooms by exploring JASON’s “Grab-and-Go” resources and HyperDocs (a digital document that centralizes the components of a learning cycle). Panelists from Fairfax County Public Schools, VA will join JASON trainers to share their insights into creating engaging resources that blend seamlessly into your classroom. (This is a repeat of the session on Wednesday, July 8th).

**2:15pm - 3:15pm**      **“The Last Artifact”**  
[\*The Last Artifact\*](#) follows the high-stakes race to redefine the weight of the world and reveals the untold story of one of the most important objects on the planet. The kilogram, the base unit of mass in the International System of Units, helped send humans to the moon and satellites into space.

**3:30pm - 4:30pm      Tuesday, July 14 - Breakout Block 2**

<p><b>Option A</b></p>	<p><b>Panel Discussion: Rolling Out JASON - District Implementation.</b> <i>All Audiences</i>          JASON offers multiple pathways and opportunities for implementation, so where do you start? Join a panel of Administrators and educators from different JASON districts to share their strategies and approaches to rolling out JASON in their districts. Find out what’s worked and what hasn’t and share ideas for successful implementation. Recommended for teams of individuals within a district.</p>
<p><b>Option B</b></p>	<p><b>The Last Artifact Panel.</b> <i>All Audiences</i>          Join the scientists and engineers of the National Institute for Standards and Technology (NIST) involved in redefining the kilogram for a more in-depth discussion and question-and-answer session following the showing of The Last Artifact.</p>
<p><b>Option C</b></p>	<p><b>Navigating JASON for Newcomers.</b> <i>All Audiences</i>          Trainers will guide participants through the JASON platform, including an overview of JASON’s philosophy, curricula, and available resources. Trainers will demonstrate how to access standard alignments, teacher resources, and lesson plans, and share tools and search strategies to help educators find the resources best suited for their classroom situations. (This is a repeat of the session on Tuesday, July 7th).</p>
<p><b>Option D</b></p>	<p><b>An Amusing Approach to Algebra.</b> <i>MS/HS, Algebra</i>          Algebra is a difficult subject for which to provide contextual experiences for students. This can make it difficult for students to understand. Take a look at some of the context-based experiences provided by ARGO Integrated Algebra, including a quest designed around planning and proposing an amusement park to investors. (This is a repeat of the session on Tuesday, July 7th).</p>
<p><b>Option E</b></p>	<p><b>Cybersecurity - Don’t Get Hacked!</b> <i>Grades 4-12, All subjects/CTE</i>          Safety and security are critical areas that all students should be exploring to become digitally literate, especially now. What is cybersecurity? How can we stay safe in the cyber world? Learn more about the dangers of social engineering attacks, what they are, and how students can learn to spot and avoid them.</p>

## WEDNESDAY, JULY 15th

**11:45am - 12:45pm**      **Keynote: “Rapid Change – Dream Big: Engineering Your Career to Build the Future of Aerospace”**  
 Tony Castilleja Jr., Systems Engineer, Global Sales & Marketing, Boeing Defense, Space & Security’s Space and Launch Division

**1:00pm - 2:00pm**      **Wednesday, July 15 - Breakout Block 1**

<b>Option A</b>	<p><b>Blast Off! MS/HS, Physical Science and Algebra</b>          A simple film canister rocket model can be leveraged to support students’ understanding of the essential practices of science and engineering, as well as key algebra concepts and skills like lines of best fit to make predictions. This session highlights the interdisciplinary connections between math and science. Come fuel up your rocket and get ready to Blast Off!</p>
<b>Option B</b>	<p><b>Panel Discussion: U.S. Cellular’s Connected Storm Sanctuary: A Public-Private Partnership to Equip Educators and Enhance Student STEM Skills. All Audiences</b>          Public Schools discuss Connected Storm Sanctuary, a Day of Design program that brings together corporate sponsors and local school districts to create a unique STEM project based learning experience for students and volunteer opportunity for employees. Panelists will share the impact of the project from their perspectives, including the teacher and student experience, employee volunteer engagement, and more.</p>
<b>Option C</b>	<p><b>JASON in Ohio - Inventing the Regional Model. All Audiences</b>          Butler County Educational Service Center (ESC), OH and JASON are breaking new ground with novel approaches and innovative strategies to elevate STEM across a broader regional community. Join us for insights and discussion around Ohio’s unique model and consider new ways to leverage your own local resources and partnerships to build sustaining and new opportunities.</p>
<b>Option D</b>	<p><b>Exploring Innerspace. ES, Life Science/Technology</b>          Survey the technologies involved in exploring the ocean floor. Participants will simulate methods of ocean exploration including SONAR, photomosaics, and underwater remotely operated vehicles (ROVs). Let’s take a deep dive and explore!</p>
<b>Option E</b>	<p><b>Collaborative Approaches for Remote Learning. All Audiences</b>          Explore strategies to build a collaborative classroom in a remote or hybrid environment. Engage in learning experiences that will help you create ways to elicit student ideas, support ongoing changes in student thinking, and facilitate classroom discourse in a remote setting.</p>

**2:15pm - 3:15pm**      **Keynote: “Aldrin Family Foundation”**  
 Andrew Aldrin, President & CEO, Aldrin Family Foundation & ShareSpace Education  
 Join Andrew Aldrin, President & CEO of the Aldrin Family Foundation, a charitable 501 (c)(3) organization dedicated to harnessing the inspiration of space to ignite a passion for STEAM education in students of all ages and backgrounds.

**3:30pm - 4:30pm**      **Wednesday, July 15 - Breakout Block 2**

<b>Option A</b>	<p><b>New Curriculum! You Are the Next Space Explorer!</b> <i>MS, Science/Social Studies</i></p> <p>One of your students may very well be the Next Space Explorer! The Aldrin Family Foundation and JASON Learning have partnered to provide educators with exciting activities, articles, and videos that will connect students with the history, science, and future of space exploration.</p>
<b>Option B</b>	<p><b>Panel Discussion: Best Practices for Classroom Implementation.</b> <i>All Audiences</i></p> <p>Educators from different districts share successful strategies for implementing JASON in the classroom with students. Guest panelists will share examples of JASON lessons they have adapted and/or customized. Participants will network in grade level bands to discuss their creative ideas for success!</p>
<b>Option C</b>	<p><b>Homemade Tools for the STEM Trade.</b> <i>K-8, General Science</i></p> <p>Survey the collection of JASON Learning's homemade tools that support STEM learning in the classroom and in the home. The materials needed to make the tools are as simple as are the instructions. Learn how students can use these tools to plan and carry out investigations.</p>
<b>Option D</b>	<p><b>The Air We Breathe.</b> <i>MS/HS, General Science</i></p> <p>STEM role model Dr. Shadle studies the emissions of pollutants from coal plants around the world. By analyzing recent data, participants will generate questions about the effect of the COVID virus pandemic on these pollutants. How does a nation-wide lock down affect the quality of the air we breathe?</p>
<b>Option E</b>	<p><b>Virtual Team Building.</b> <i>All Audiences</i></p> <p>This session offers interactive activities and strategies that help students connect with each other and reinforce their sense of community all while working remotely.</p>