



## Sharing Resources to Celebrate Black History Month

As we begin 2022, we must renew our commitment to provide equitable learning opportunities for every student throughout Illinois. Through this newsletter and the [DoIT STEAM website](#), in small ways we strive to share some ideas that may spark curiosity and imagination in students of all ages related to Science, Technology, Engineering, Arts, and Mathematics (STEAM).

According to [History.com](#), “Black History Month is an annual celebration of achievements by African Americans and a time for recognizing their central role in U.S. history. Also known as African American History Month, the event grew out of “Negro History Week,” the brainchild of noted historian Carter G. Woodson and other prominent African Americans. Since 1976, every U.S. president has officially designated the month of February as Black History Month.”

In collaboration with the [Office of Lieutenant Governor Juliana Stratton](#) and the [Illinois Legislative Black Caucus Foundation](#), we are dedicating this edition of the DoIT STEAM newsletter to showcase the accomplishments in STEAM fields that have been made and offer resources to teach and learn about Black History with STEAM activities and lessons.

Please let us know if we can highlight your work or resources that you find engaging, and share with others in these pursuits. Please submit STEAM ideas, comments, or questions using our [contact us form](#).

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# Let off some STEAM with these fun activities!

**K - 4**

**Learning for Justice “Collage of Concerns”**

**5 - 8**

**Library of Congress Virtual Student Workshop  
“Rosa Parks: Freedom Fighter”**

**9 -12**

**National endowment for the Humanities “The Freedom  
Riders and the Popular Music of the Civil Rights  
Movement”**

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## **Educator’s Corner**

**STEAM resources for in-person, hybrid, remote learning, and professional development**

- [Museum of Science + Industry Chicago “Black Creativity”](#)
- [Smithsonian Magazine “Teaching a More Complete Picture of MLK”](#)
- [Science Buddies “Learn More About these 28 Scientists for Black History Month”](#)
- [Path to Freedom on Illinois’ Underground Railroad](#)
- [African American History Month Resources for Teachers](#)
- [National Geographic Kids “Making History: African American Pioneers of Science”](#)
- [Black Girls Code](#)
- [“Black Inventors and Their Inventions”](#)
- [“The A-Z List of Black Inventors Whose Names You Should Know”](#)
- [K-12 Dive “Using the Olympics to bring STEM excitement into classrooms”](#)

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# News & Events

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## Fermilab launches the new Gates Fellowship

“The Theory Division at the Department of Energy’s Fermi National Accelerator Laboratory is pleased to announce its [new Sylvester James Gates, Jr. Fellowship](#). Inspired by the achievements of Jim Gates, currently Ford Foundation professor and director of the Brown University Theoretical Physics Center, the Gates Fellowship at Fermilab prioritizes the inclusion of first-generation college graduates, and the representation of historically and contemporarily minoritized individuals underrepresented in theoretical physics.”



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## The New York Times 3rd Annual STEM Writing Contest - Feb. 2 to March 9, 2022

“We invite students to choose an issue or question in science, technology, engineering, math or health, then write an engaging 500-word explanation. **Contest Dates: Feb. 2 to March 9, 2022.**”

Students ages 11 to 19 anywhere in the world attending middle or high school can participate. Students ages 13 to 19 years old in the United States and the United Kingdom, and students ages 16 to 19 years old anywhere else in the world, can submit their own entries. Younger students can have an adult submit on their behalf.”

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## IDEAcon 2022 -- February 14 - 17, 2022

“IDEAcon is one of the Midwest’s largest ed tech conferences. Hosted by IDEA every February, thousands of educators from Illinois and across the U.S join together to learn about sound pedagogical practices in education and how to leverage technology to engage, inspire, and reach all learners.

This 4-day conference includes inspirational keynote speakers and hundreds of educator-led sessions focused on engaging students, building relationships, and integrating tools to foster academic achievement. You’ll also have the opportunity to visit 200+ vendors, explore state of the art educational technology resources, participate in hands-on learning explorations, and network with other passionate educators in our exhibit hall experience.



IDEAcon 2022 will include both virtual and in-person sessions at the Renaissance Hotel and Convention Center, Schaumburg, Illinois. Join us Feb. 14 - 17, 2022, for the best IDEAcon yet!”

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## CS Fundamentals Virtual Workshop | Feb. 26 | Virtual

CS Fundamentals is an introductory workshop designed for elementary educators new to teaching computer science who want to explore how to begin teaching Code.org’s CS Fundamentals curriculum. Over 85,000 teachers have participated in this original workshop already, allowing their schools to grow their in-district capacity for teaching robust CS courses!

Join your peers and experienced facilitators to get a hands-on introduction to computer science, pedagogy, overviews of the online curriculum, and Code.org’s teacher dashboard, as well as strategies for teaching “unplugged” classroom activities.

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# STEAM Resource Spotlight

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## **Fractured Tour** **An immersive tour** **of Selma's divides**

“This is an experiment in a journalistic, immersive, self-guided documentary “tour” of the economic, racial and ideological divides in Selma, Alabama. Navigate through a series of 360° panoramas of places in Selma – 50 years after the “Bloody Sunday” voting rights march of 1965, and 150 years after the end of the Civil War – with annotated interviews that reflect the fractured conversation about race and a common thread of economic distress in America.”

This immersive virtual reality tour was produced and directed by Joel Beeson, Associate Professor, West Virginia University Reed College of Media and Emily Pelland, Multimedia Journalism Student, Morgan State University.

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## **National Museum of African American History & Culture**

### **Through the Window and into the Mirror: Narratives of African American STEM Professionals**

“The National Museum of African American History and Culture invites middle and high school students to explore careers in science, technology, engineering, and mathematics (STEM).



*Through the Window and into the Mirror* is a video conversation series about the experiences of African American STEM professionals today. Students will peer into the ‘windows’ of the speakers’ lives, learn from their lived experiences as STEM professionals, and find parts of their culture and lifestyle ‘mirrored’ in the speakers’ lessons of their youth and greatest challenges and accomplishments. *Through the Window and into the Mirror* aims to inform, inspire, and be a starting point for students as they take steps towards having careers in STEM.”

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# STEAM Resource Spotlight Continued

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## CyberStart America Competition Now Open Play until April 27, 2022

[Register now](#)

“CyberStart America is the most enjoyable way to discover your talent, advance your skills and win scholarships in cybersecurity! Get free access to CyberStart, an immersive cybersecurity training game for high school students, with over 200 fun-to-play challenges.

### How it works

CyberStart America gives students in 9th-12th grade free access to the world-renowned [CyberStart](#) game. Tackle four unique bases, each focusing on both offensive and defensive cybersecurity disciplines. Explore over 200 unique security challenges which you’ll solve as a cybersecurity agent investigating criminal gangs. Get access to an extensive field manual featuring video demos, top tips and essential background information to help with challenges. Unlock a hidden interest, progress from novice to expert and demonstrate your skills to win scholarships.”

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**TECHNOLOGY**  
CENTER of ILLINOIS

## Computer Science Resource Database

The Learning Technology Center supports Illinois K-12 schools and educators as they strive to grow their own CS curriculum and comply with forthcoming state-level mandates. This [digital resource library](#) can help accomplish both goals by providing access to vetted CS resources geared toward a variety of grade levels, content areas, and use cases.

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## Engage, Experience, and Energize at the Computer Science Teachers Association 2022 Annual Conference in Chicago July 14-17, 2022



“Engage with your community of CS teachers. Experience over 200 educational sessions to help you get the best educational experience possible. Energize in-person, where you’ll leave feeling refreshed and excited to start the school year, armed with new lessons and tools to implement in your classroom. Join us at the [CSTA 2022 Annual Conference](#), set for July 14-17, in Chicago! Registration is now open to all, with special discounts available to CSTA+ members. Head to [conference.csteachers.org](#) to secure your spot at the lowest rate of the season. Professional development credits will be offered to Illinois attendees by IDEA.”

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# The 'A' in STEAM



*"Arts foster scientific success" -Dr. Temple Grandin*

This series is dedicated to showing how art and creativity play a crucial role in our society on its own and even within the STEM fields. There's a great deal of artistry that goes into our favorite products and media we consume that make our lives easier, or at least a bit more enjoyable, and teach us valuable lessons about history.

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## TeachRock

“TeachRock empowers teachers and engages students by using popular music to create interdisciplinary, culturally responsive education materials for all 21st century classrooms. Launched by Stevie Van Zandt and the Founders Board of Bono, Jackson Browne, Martin Scorsese, and Bruce Springsteen, [TeachRock.org](http://TeachRock.org) provides free, standards-aligned resources that use music to help K-12 students succeed in disciplines like science, math, social studies, language arts, and more.

## Black History

Without doubt, the history of American popular music is the history of Black experience in the United States. From the banjo (one of America’s earliest popular instruments) to Hip Hop, popular music has been continually informed by the cultural resilience, ingenuity, and genius of the African American community in the face of enormous injustice.

The lesson collection below highlights the intersections of music and black experience in America, from [slavery](#) to the [Civil War](#) to abolition to [Reconstruction](#) and [sharecropping](#) to the [Great Migration](#) to Southern integration. The collection also focuses on the various social movements initiated by the Black community, from [Civil Rights](#) to Black Power to [Black Lives Matter](#). In addition, a pair of lessons explore the establishment of the Birthday of [Martin Luther King, Jr.](#) national holiday – both the legislative process and Stevie Wonder’s long-lasting musical contribution to the successful public campaign. Finally, several lessons focus on prominent African American writers and artists such as [Langston Hughes](#), [Gwendolyn Brooks](#), and [Gordon Parks](#).”

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[www.illinois.gov/doit-steam](http://www.illinois.gov/doit-steam)



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