



April is Innovation & Technology Month

Governor JB Pritzker has [proclaimed April as “Innovation & Technology Month”](#) as part of an annual recognition of the importance that innovation and technology play in our society and economy. This recognition highlights the role that innovation and technology plays in our daily lives and how imperative it is to prepare students with the skills and technical resources to manage constantly changing environments in Science, Technology, Engineering, Arts, and Mathematics (STEAM), including emerging fields such as quantum science.

The first [World Quantum Day](#) is **April 14, 2022**, and the [National Quantum Initiative](#) has developed numerous educator resources. The [Q12 Education Partnership](#) offers information about Quantum Information Science and Technology ([QIST](#)) [careers](#), [QuanTime educational activities](#), and the [K-12 learning framework](#).

In recognition of the first [World Quantum Day](#), please join a live webinar titled “What is Quantum Science and Why Should I Care” from **4:00 p.m.—5:00 p.m. on Thursday, April 14, 2022** to learn more about quantum science and technology. This webinar will feature panelists from Illinois who will explain the science and applications as well as share learning resources and career opportunities in related fields. Panelists scheduled to participate include: Dr. Diana Franklin, Associate Professor, Department of Computer Science, University of Chicago; Joseph Fatheree, Innovation Teacher, Effingham High School; Dr. Mark Vondracek, Physics Teacher, Evanston High School; and Keith Jacobs, Extension Specialist, STEM, University of Illinois. The panel will be moderated by Jennifer Ricker, State CIO and Acting Secretary, Illinois Department of Innovation & Technology. Please [register](#) to participate in the webinar.

Inclusion of quantum science in the Proclamation showcases the investment made by federal sources, industry, and education for quantum computing, information science, engineering, technology, communications, and physics with institutions and research based in Illinois. These resources should be leveraged by K-12 educators to expose students to the opportunities presented by these fields for further study, exploration, and career pathways. The [press release](#) announcing the proclamation includes a link to the [DoIT STEAM webpage](#) which contains links to national and state resources dedicated to quantum science.

Let off some STEAM with these fun activities!

K - 4

NASA's "Ocean World: Earth Globe Toss Game"

5 - 8

QuantTime Activities

9 -12

Enabling Practical-Scale Quantum Computing "Zines" Explain Quantum Computing

Educator's Corner

STEAM resources for in-person, hybrid, remote learning, and

- [National Q-12 Education Partnership](#)
 - [National Q-12 Education Partnership "Careers in Quantum Science"](#)
 - [National Quantum Initiative](#)
 - [Qubit X Qubit](#)
 - [Q-NEXT "Next Generation Quantum Science & Engineering"](#)
 - [Fermilab Quantum Institute](#)
 - [Argonne National Laboratory Quantum Information Science](#)
 - [PhysicsWorld "What does physics look like, and does it matter?"](#)
 - [University of Illinois Hybrid Quantum Architectures and Networks](#)
 - [Symmetry Magazine "Building the quantum workforce"](#)
 - [Quantum Information Science Resources and Tools](#)
 - [Quantum Computing for the Quantum Curious](#)
 - [U.S. Department of Energy Explains ... Quantum Networks](#)
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News & Events

What is Quantum Science and Why Should I Care? Live Webinar 4pm-5pm on April 14, 2022



Celebrate the first [World Quantum Day](#) on April 14, 2022 by joining a live webinar to learn more about quantum science and technology. Learn about resources that can help educate students about quantum science, applications, career opportunities and the implications in our every day lives.

Panelists scheduled to participate include: Dr. Diana Franklin, Associate Professor, Department of Computer Science, University of Chicago; Joseph Fatheree, Innovation Teacher, Effingham High School; Dr. Mark Vondracek, Physics Teacher, Evanston High School; and Keith Jacobs Jr., Extension Specialist, STEM, University of Illinois. The panel will be moderated by Jennifer Ricker, Illinois CIO and Acting Secretary, Illinois Department of Innovation & Technology.

Find additional resources at the [DoIT Quantum Illinois website](#). [Register](#) to join the webinar.



ISBE Virtual Conference **April 25, 2022**

Northern Illinois University STEAM Camps



An experience they'll remember.

"A week on a college campus can be a life-changing experience for a young person. It offers a chance to build friendships. To engage in intellectual development and career exploration. To gain confidence in social and academic realms that sets the stage for future success.

Our campers return year after year because of connections they create with peers who share their interests and passions and with faculty and staff who nurture their creativity. This may be the first time a camper develops their own robot, film or video game or conducts an experiment of their own design. But it likely won't be the last."

Northern Illinois University STEAM Camps are led by a passionate, well-trained team who love to teach, laugh, and have fun. Join them for an epic summer adventure in a wide range of areas such as: Coding, Career, Creative, Gaming, Making, Science, Space, and Robotics. [Elementary](#) School, [Middle](#) School and [High](#) School Camps are available.

STEAM Resource Spotlight

Learning Technology Center of Illinois hosts “Concrete Ways Tech Can Support the Arts”

3:30pm—4:30pm on April 19, 2022 — FREE Webinar

“Between iPads, Procreate, and the Adobe CC suite, there are all kinds of tech tools available to today’s creative minds. But how can we use those same tools to help our students unlock their own creativity?”

During this 1-hour webinar, we’ll discuss the keys to harnessing creativity-focused technology and talk about specific tools that teachers can use to support visual arts in their classroom. LTC tech coach and National Board Certified visual arts teacher Jen Leban will also be on hand to answer questions and offer guidance based on her 20+ year career in the classroom. Educators for all grade levels and from across the curriculum are encouraged to join and discover new ways to infuse creativity into their students’ everyday learning.

Illinois educators who attend live can earn 1.0 PD credit.”

QuanTime



Let's celebrate World Quantum Day!

“QuanTime will run from April 11-May 31, 2022. During this time, we hope you will join other classrooms around the country in trying out a quantum activity. The activities we are sharing have been designed for K-12 and are a fun way to introduce middle and high school students to quantum information science. You can choose between online and hands-on activities. No teacher expertise in quantum science is required. Register to let us know your interest and so we can add you to our map!”

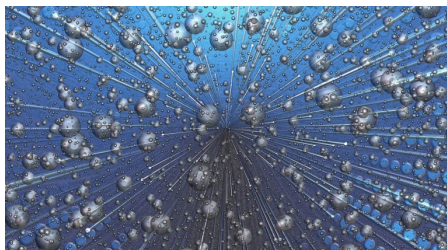
[Registration for QuanTime is Open!](#)



Symmetry Magazine Fermilab/SLAC Production

“Do you know about [Symmetry Magazine](#)? This joint Fermilab/SLAC production welcomes readers into the world of particle physics and astrophysics with beautiful illustrations and thought-provoking articles on topics like how to break a theory; diversity, equity and inclusion in the emerging realm of quantum information science; and whether dark matter is cold, warm or hot. Give it a read and bookmark the site while you’re at it!”

STEAM Resource Spotlight Continued



Quantum Atlas

“Quantum physics governs everything that’s very small or very cold, and it has a reputation for being mystifying, unintelligible, obscure, and spooky.”

Supported by the [National Science Foundation](#) and created by [Joint Quantum Institute](#) and the [University of Illinois Quantum Information Science & Technology Center](#), the Quantum Atlas includes resources such as interactives, animations and illustrations to “help kindle your imagination and bring the quantum world to life.”

The Quantum Atlas is created by a team of physicists, science communicators, and illustrators to make quantum concepts “easier to understand if you can play around with them.” And, “lighthearted cartoons are sprinkled throughout to make the science more approachable.”

Earth Day 2022 Invest in our Planet April 22, 2022



RESOURCES FOR CLASSROOM, AT-HOME AND COMMUNITY LEARNING

“Browse our resources to guide your environmental education lessons and stewardship activities on Earth Day and throughout the year. These resources can be adapted to a variety of ages and settings.” Toolkits, lesson plans, advocacy packets, quizzes, timelines, menus, and partner resources are all available at the [Environmental Education Resource Library](#).



Internet2 Community Anchor Program K-12 Curriculum Resources

“At the Internet2 Community Anchor Program, we work hard to support teachers to use the internet to teach in new and exciting ways and open up the world to their students.

The list of external resources contains some of CAP’s favorite online and distance learning resources for students everywhere. Click the links to help your students learn in new ways, whether it’s learning about art from [Smithsonian experts](#), [dissecting a bug online](#), or connecting to students halfway across the globe to compare cultures.”

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.

University of Illinois Art Science Festival 2021 “Quantum Enchantment”

“The quantum realm is nothing like the classical world of children playing soccer or planets revolving around the Sun. Yet, it makes us who we are from miniscule atoms to quantum biology to solar panels aboard satellites. In this mysterious realm, matter can behave as waves. Beams of light separated across the globe can commune in spooky ways. Tiny little magnets can gyrate and form the basis of MRI machines. Particles can conspire to form strange fluids that give rise to levitation.

Through theater, film, music, dance, storytelling, and more, we take you on a journey into this quantum enchantment. Interspersed through our meanderings, quantum physicists appear to give you dramatic first-hand accounts of their explorations of these mysterious realms.”

As part of the [Art Science Festival @ Illinois 2021: The Illuminated Universe](#), quantum physics was one of the themes explored. The virtual event was hosted by [Illinois Physics](#) and the [Illinois Center for Advanced Studies of the Universe](#).



www.illinois.gov/doit-steam



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Please submit STEAM ideas, comments, or questions using our [contact us form](#).

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