

# FEDERAL RESOURCES

The federal government provides resources for STEM teachers through its many different agencies. We've compiled some of these resources here.

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Have questions?

Reach out:

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## CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC)

### CDC Museum Disease Detective Camp

#### **Type: Student Opportunity**

Summer camp for high-schoolers. Students are immersed in CDC topics to learn the basics of public health and become a diverse team of disease detectives!

### CDC Museum Online Summer Course

#### **Type: Student Opportunity**

Summertime virtual course for high-schoolers. During this fast-paced academic program students learn the basics of public health with topics from epidemiology to health equity.

### CDC Museum STEM Lessons

#### **Type: Curriculum Resources**

Inquiry-based, hands-on lessons on public health topics (i.e., COVID-19, opioids, vaccination). Lessons use either the public health approach, engineering design process, or scientific method format.

### CDC Museum Teen Newsletter

#### **Type: Student Opportunity**

Monthly newsletter for teens on public health topics with a live Teen Talk for students to interact with CDC professionals who work in that area.

### CDC Nerd Academy

#### **Type: Curriculum Resources**

An innovative educational resource to teach STEM students about public health, epidemiology, and related careers using educational videos and STEM activities.

## **CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC), CONT'D**

### **CDC Science Ambassador Educational Activities**

#### **Type: Curriculum Resources**

STEM educational activities focused on teaching students about epidemiology, outbreaks, surveillance, and preparedness and response.

### **CDC Science Ambassador Fellowship**

#### **Type: Professional Development**

A fellowship that prepares STEM teachers to bring public health science into grade 6–12 STEM classrooms.

### **CDC Science Ambassador Regional Trainings**

#### **Type: Professional Development**

Two-day trainings in epidemiology and public health offered for middle and high school STEM teachers throughout the year at sites across the country.

### **Junior Disease Detectives: Operation Outbreak Graphic Novel & STEM Classroom Educational Activities**

#### **Type: Student Opportunity**

A graphic novel with educational activities that educate youth about CDC's disease detectives and encourages them to consider STEM careers in animal health.

### **Solve the Outbreak**

#### **Type: Student Opportunity**

This STEM game lets students travel the world chasing outbreaks—like the ones real-life CDC Disease Detectives help fight.

## **NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)**

### **NASA CONNECTS**

#### **Type: Online Community**

NASA's new online community of practice to enable educators to collaborate together with NASA content including lesson plans, toolkits, videos, and more.

## **NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)**

### **NIST Educational Portal and STEM Resource Registry**

#### **Type: Curriculum Resources**

Explore measurement science: learn how and why we measure things. Educators and learners can find resources and educational opportunities. Content is free and available to all.

## **NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)**

### **NOAA Education Resource Collections**

#### **Type: Curriculum Resources**

Explore hundreds of educational resources on the ocean, coasts, weather, climate, and Great Lakes. Resources include lessons, videos, data products, printable pages, and more!

### **Office of National Marine Sanctuaries 50th Anniversary Resources**

#### **Type: Curriculum Resources**

Celebrate the 50th anniversary of the National Marine Sanctuary System with new educational materials, beautiful posters, and important history!

### **Teaching Climate**

#### **Type: Curriculum Resources**

A resource for educators on teaching climate, including through experiments, tools, and learning activities.

## **NATIONAL SCIENCE FOUNDATION (NSF)**

### **NSF Classroom Site**

#### **Type: Curriculum Resources**

A diverse collection of lessons and web resources for classroom teachers, their students and students' families.

### **NSF Discovers Files**

#### **Type: Curriculum Resources**

An upbeat, entertaining look at the latest advances in science and engineering. Often fun and always fascinating, each episode covers a project funded by NSF.

### **Science Matters Blog**

#### **Type: Curriculum Resources**

Learn more about NSF-supported advances and breakthroughs, funding opportunities for researchers working at the frontiers, statistical data about the state of the U.S. science and engineering enterprise and more!

## **SMITHSONIAN SCIENCE EDUCATION CENTER**

### **Biodiversity! How Can We Balance the Needs of People with the Needs of Other Living Things?**

#### **Type: Online Community**

This free community research guide provides a unique way for science teachers to integrate STEM Education for Sustainable Development and to help youth ages 8-17 develop sustainability mindsets to promote empowerment, agency, equity, justice, and open mindedness and reflection in STEM.

### **Diversity, Equity, Accessibility, and Inclusion (DEAI)**

#### **Type: Curriculum Resources**

This page contains the DEAI image, the definitions of each of the terms from AAM, as well as slides that teachers can use to share information on DEAI with their fellow educators and administrators.

## **SMITHSONIAN SCIENCE EDUCATION CENTER, CONT'D**

### **Smithsonian Research**

#### **Type: Professional Development**

The research article by Redding 2019, shows WHY it is important to promote diversity in the teaching workforce: Redding, C. (2019). A Teacher Like Me: A Review of the Effect of Student-Teacher Racial/Ethnic Matching on Teacher Perceptions of Students Academic and Behavioral Outcomes.

### **STEM Diversity Summit**

#### **Type: Professional Development**

A Steering Committee of education thought leaders, including experts from PK-12 and postsecondary education, Minority-Serving Institutions, and nonprofits work together to give schools and districts the tools to attract and retain STEM teachers from underrepresented groups.

### **Stories of Women in STEM at the Smithsonian eBook Series**

#### **Type: Curriculum Resources**

Biographies of trailblazing women who made history through their scientific discoveries and innovation.

### **Stories of Women of Color in STEM eBook Series**

#### **Type: Curriculum Resources**

Read the stories of many important women of color who made groundbreaking discoveries in science, technology, engineering, and mathematics.

### **Zero Barriers in STEM Education**

#### **Type: Professional Development**

To support STEM teachers in promoting “accessibility,” we will be hosting a Zero Barriers in STEM Education summit this summer which supports school district teams to strengthen their ability to use inclusive Universal Design for Learning practices in their STEM classrooms to ensure all learners along the continuum of human ability and experience have robust access to STEM experiences.

## **U.S. DEPARTMENT OF ENERGY (DOE), OFFICE OF SCIENCE**

### **STEM Resources for K-12 Educators and Students**

#### **Type: Curriculum Resources**

National laboratories' scientists and engineers are engaged in a broad range of activities with K-12 STEM educators and students to help inspire and train the next generation of STEM students and professionals.

## **U.S. GEOLOGICAL SURVEY (USGS)**

### **USGS Education**

#### **Type: Curriculum Resources**

Classroom activities and lessons for teaching about the Earth, including geology, geography, water, climate, ecosystems, minerals, natural hazards, and energy.

### **USGS Water Science School**

#### **Type: Curriculum Resources**

Classroom activities, lessons, and background information on all topics water related.