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THE WHITE HOUSE
Office of the Press Secretary

**FACT SHEET: At White House Science Fair, President Obama Calls
on This Generation of Students to Tackle the Grand Challenges of Our Time**

WASHINGTON, DC – Today, President Obama will host the sixth and final White House Science Fair of his Administration and celebrate the student competitors and winners from a broad range of science, technology, engineering, and math (STEM) competitions. The event will be the largest White House Science Fair to date, with more than 130 students from more than 30 states, as well as student alumni from each of the prior five White House Science Fairs.

Highlighting the powerful stories of ingenuity, social activism, teamwork, and civic engagement evident in the projects, President Obama will call on this generation of students – those in elementary, middle, and high schools today – to actively participate in solving the toughest challenges facing our world, from combating climate change to setting foot on Mars.

President Obama established the tradition of the White House Science Fair at the start of his Administration to personally celebrate our Nation’s top young scientists and innovators. The President created the Science Fair [with a simple credo](#): “If you win the NCAA championship, you come to the White House. Well, if you’re a young person and you produce the best experiment or design, the best hardware or software, you ought to be recognized for that achievement, too.”

The President will also highlight the growing community of education, business, and nonprofit leaders who have responded to his [State of the Union call](#) to give every child the opportunity to learn computer science (CS), as well as his overall “Educate to Innovate” campaign to ensure [all students](#) have the tools to be innovators and problem-solvers. Today’s announcements include:

- [New Department of Education guidance](#) to states, school districts, and other education organizations on the many ways they can use existing Federal funds to advance Pre-K-12 STEM and CS learning.
- [A \\$200 million investment](#) by Oracle to support CS education for an additional 125,000 students in the United States.
- [More than 500 K-12 schools](#) committing to expand access to CS, with support from Code.org.
- [Commitments to expand STEM learning for more of our youngest learners](#), from family engagement to innovative use of media.

- [A new online matching platform](#), supported by US2020, to help more STEM professionals who want to volunteer and mentor.

Today's STEM announcements also mark progress on the President's [My Brother's Keeper Initiative](#) and the efforts of the [Council on Women and Girls](#) to build ladders of opportunity for all young people, including populations underrepresented in STEM; incorporate STEM into the Administration's push to expand [high-quality early-childhood education](#); and advance the [Climate Education and Literacy Initiative](#) to help connect all American students and citizens with the best-available, science-based information about climate change.

The White House Science Fair is part of a week of Administration activities celebrating science and technology, featuring the President's participation as a guest presenter throughout this week on the Science Channel's nightly science news segment. In addition, the White House Science Fair will be immediately followed by the USA Science & Engineering Festival, the nation's largest celebration of science, technology, engineering, and mathematics, with more than 350,000 students and adults expected to engage in more than 3,000 hands-on activities over 3 days. More than 70 Federal agencies will participate in the Festival.

A Generational Call to Action

Students today have the potential to be one of America's greatest generations. Though each generation of Americans brings with them new ideas and energy, today, because of unprecedented access to cutting-edge physical and digital tools, online and in-person communities, and information about the grand challenges we face, American students are even better equipped to harness their passions towards developing solutions that confront our toughest challenges.

They can be the Mars generation, the explorers who first step foot on another planet. Their skills, perseverance, and collaboration can help seed new technologies and solutions to tackle the climate crisis. They can collaborate to harness rapid advances in information technology and nanotechnology to understand the human brain, forge new solutions to cancer, and embrace the American spirit of discovery, invention, and entrepreneurship.

As the President highlighted in this year's [State of the Union Address](#), everyone in the United States can harness technology to help solve our toughest challenges. The 2016 White House Science Fair shines a spotlight on the contributions that the Nation's students are making now, and the potential they have to help make our country and our world a better place.

The more than 130 students at the 2016 White House Science Fair will represent more than 40 different STEM competitions and organizations. Approximately 40 student teams will have the opportunity to exhibit their projects at the White House, and the President will personally view some of these projects. Additional information on the projects, students, and competitions being recognized at the Fair can be found [here](#).

A Sustained Record of Accomplishment

This White House Science Fair is only the most recent example of President Obama's sustained and historic focus on giving every child the opportunity to excel at STEM education. In the past 7 years:

- The Administration has secured more than \$1 billion in private investment for improving STEM education as part of the President's [Educate to Innovate](#) campaign.
- Our Nation is more than halfway towards achieving the [goal the President set in 2011](#) of preparing 100,000 new math and science teachers by 2021.
- Compared to when President Obama took office, 25,000 more engineers are graduating each year from American universities.
- STEM education has been incorporated into the priorities of the Department of Education (ED) – as illustrated by the Administration's signature [Race to the Top](#) competition – and into the bipartisan Every Student Succeeds Act that the President signed last year.
- This White House has announced more than 350 commitments from college and university leadership and others to provide pathways for students underrepresented in STEM to attain degrees.
- President Obama has started traditions such as the [White House Science Fair](#) to honor young people using STEM to improve their communities and the world.

And in his [final budget](#) announced in February, the President sustains this impressive track record with an investment of \$3 billion for STEM-education programs, as well as a historic \$4 billion proposal in support of CS education for all students.

New Steps Being Announced by the Administration Today

Federal agencies are announcing new steps to empower local communities with the tools, people, and support they need to expand their STEM efforts. These include:

- [Federal guidance on advancing STEM education](#). Today, the **Department of Education (ED) Office of STEM** is releasing a [Dear Colleague Letter](#) providing guidance for states, school districts, and other education organizations on how

they can use Federal funds to support innovative STEM-education strategies and ensure equitable STEM-education opportunities and outcomes for all students in the 2016-17 school year. In particular, this guidance outlines how Federal money can be used to support high-quality, hands-on active STEM learning.

- The Corporation for National and Community Service (CNCS), along with the STEM Funders Network and the Afterschool Alliance, are collaborating to support vibrant STEM ecosystems in as many as 14 communities, where local schools, out-of-school programs, business, higher education, museums and local institutions will work together to expand STEM learning opportunities for local students. To support the effort, CNCS will place up to 28 AmeriCorps VISTA members, who will be full-time staff on the ground. In addition, CNCS is expanding STEM AmeriCorps VISTA through a new partnership with the **New York Academy of Sciences** that will place more than 10 AmeriCorps VISTA members over the next 2 years in afterschool STEM-mentoring programs, which will serve students who reside in 60 of the poorest neighborhoods in New York City, NY, and Newark, NJ.
- The U.S. Patent and Trademark Office (USPTO), in collaboration with the YMCA of the USA, will help 10 new host cities around the country expand Thingamajig, a program developed by the YMCA of Metropolitan DC. These cities will create programs, seminars, and tools that assist students in connecting STEM education with real-world problem solving skills. This partnership builds on the last 2 years of expansion across YMCA of the USA, which reaches over 100,000 youth – with a focus on low-income and underrepresented youth – in 48 states and Washington D.C. Additionally, this year, USPTO will expand its collaboration with the JAMTECH program to more sites across the country. JAMTECH is a hands-on educational experience that gives students with little or no exposure to computer programming the opportunity to build and program their own video games over the course of a day – teaching the principles of game design, coding, and programming in a way that allows students to expand their competencies in areas such as math, physics, analysis, logic, and strategy.
- Over 200 Federally supported citizen-science projects for students and adults are now accessible from a single place – CitizenScience.gov. The **General Services Administration (GSA)** is collaborating with the **Woodrow Wilson International Center for Scholars (WWICS)**, a Trust Instrumentality of the U.S. Government, to launch CitizenScience.gov, a new central hub for citizen science and crowdsourcing initiatives in the public sector. CitizenScience.gov will provide information, resources, and tools for government personnel, students, and adults who are actively engaged in or looking to participate in citizen science and crowdsourcing projects. The development of this catalogue follows the

[September 2015 memorandum](#) to Federal departments and agencies issued by the White House Office of Science and Technology Policy (OSTP).

- **ED, the Department of Health and Human Services (HHS), and Too Small to Fail (TSTF)** are releasing a series of tip sheets entitled “Let’s Talk, Read and Sing about STEM!” These tip sheets provide concrete resources and recommendations for families, caregivers, and educators of infants, toddlers, and preschoolers on easy ways to incorporate STEM concepts and vocabulary into everyday routines, and suggestions for activities to engage young children in STEM learning. These new resources build on an existing suite of materials co-created by ED, HHS, and TSTF focused on early brain and language development.
- **The National Science Foundation (NSF)** will celebrate a Day of Active Learning. A robust foundation of evidence shows that while active engagement enhances learning for students of all demographics, it has an especially beneficial effect on women and underrepresented students, likely due to a greater sense of belonging that can be achieved in active classrooms. Today, NSF is announcing that it will hold an Active Learning Day later this year, with the goal of empowering and encouraging educators nationwide to use active learning in their classrooms.

Private-Sector Commitments in Response to the President’s Call to Action

Today, more than 100 different organizations are announcing new commitments, showcasing the strong response to the President’s [State of the Union call](#) to give every child the opportunity to learn CS, as well as his overall “Educate to Innovate” campaign to ensure [all students](#) have the tools to be innovators and problem-solvers. These announcements mark progress on a number of Administration priorities.

Computer Science for All

Since the beginning of his Administration, President Obama has sought to improve STEM education to prepare all students to compete in the innovation economy. In his final State of the Union, President Obama pushed us to take the next step – to offer rigorous CS coursework for all students.

Since the President issued his CS proposal, we have seen real progress, including:

- **Four Governors have supported new K-12 CS efforts.** In early March, Rhode Island Governor Gina Raimondo announced her plans for Rhode Island to give CS education to all of its students. In the past month, Idaho Governor Butch

Otter and Utah Governor Gary Herbert have both signed bills to expand access to CS in Idaho and Utah schools, and Virginia passed legislation adding CS to its K-12 standards. In addition, Washington Governor Jay Inslee co-authored a joint bipartisan op-ed with Arkansas Governor Asa Hutchinson in support of the goals of the Computer Science for All initiative, and launched a bipartisan *Governors' Partnership for K-12 CS Education* effort at the National Governors Association meeting.

- Cities and school districts have stepped up as well. Last month, Chicago's City Council acted to make CS a graduation requirement, starting with the high-school class of 2020. Meanwhile, individual schools, like Tech Valley High School in New York, have announced plans to make CS a required course. Riverside Unified Schools has pulled together a consortium of school districts in the Inland Empire region of Southern California, to prepare 250 new CS teachers across schools serving a population of 245,000 students. Palm Beach County Public Schools has committed to expanding K-12 CS by training up to 100 new CS teachers in the 2016-17 school year in partnership with Code.org. Alabama's A+ College Ready has committed to expand high-school CS courses throughout the state of Alabama, to at least 35 high schools, in partnership with Code.org.
- Tech leaders have rallied in support. The #CSforAll campaign has registered more than 400 million social media impressions and inspired an outpouring of support from technology leaders including Bill Gates and Mark Zuckerberg.

Today, the Administration is highlighting new commitments that advance the President's CS efforts.

- **Boise State University**, as part of its IDoCode program and in cooperation with **Idaho State Department of Education** and local high schools, will develop a CS badge for teachers, to be available by fall 2017. The badge will provide CS training for 10-12 additional teachers each year. Once the program is established, IDoCode will work to replicate it to additional Idaho campuses to reach another 10-20 teachers each year. IDoCode will also support state efforts to develop K-12 CS standards for students, with a goal of achieving legislative approval in 2017.
- **Cartoon Network** is launching its first public service announcement (PSA) focused on creative coding, highlighting for kids that they can learn coding as a means to express ideas, craft stories, and create art. Cartoon Network will lend its full range of media platforms to amplify the PSA. In addition, to build momentum around its efforts to integrate coding storylines into its programming, Cartoon Network today released a first look at its coding-themed episode of *The Powerpuff Girls*. Cartoon Network, in collaboration with the Scratch team of the Lifelong Kindergarten Group at the **MIT Media Lab** will this summer provide free coding activities integrating characters from the show.

- **Code.org** is announcing new partnerships to train teachers and help more than 500 K-12 schools expand access to CS. Code.org has established partnerships with 7 local organizations to deliver professional-learning programs aimed at preparing up to 550 new high-school and middle-school CS teachers over the next 2 years. Participating organizations are **Rice University, Code VA, the Council of Educational Administrative and Supervisory Organizations of Maryland, Ohio STEM Learning Network, Florida State College at Jacksonville, Patricia & Phillip Frost Museum of Science, Puget Sound Educational Service District, Alameda County Office of Education, and 9 Dots Community Learning Center**. In addition, Code.org will help support more than 500 K-12 schools expand their CS offerings. This includes:
 - Nine school districts surrounding Chicago have grouped together to begin offering AP CS Principles in 21 high schools.
 - Dallas Independent School District will be offering beginning CS courses districtwide for the first time in the majority of their high schools and all of their middle schools in the 2016-17 school year.
 - Georgia's Department of Education and Governor's Office of Student Achievement committed to expand AP CS Principles to 60 high schools and integrate CS into preexisting courses at 60 middle schools across the state.
 - Mississippi's Department of Education will host 6 summer workshops this year to prepare approximately 170 new CS teachers in grades K-5.
 - Northeast Florida School Districts, representing Clay, Duval, Nassau, and St. Johns Counties, have combined efforts to spread opportunities for CS instruction to over 200,000 students served collectively by their 330 schools.
 - In Washington State, Educational Service Districts 123, 171, and 112 (serving 82 school districts) have partnered with Code.org to bring CS professional-learning opportunities for elementary- and middle-school teachers as well as for middle- and high-school counselors and administrators.
- This fall, **CodeHS** will launch a -year online CS curriculum for high-schools, including courses for Introduction to Computer Science in JavaScript, AP Computer Science in Java, AP Computer Science Principles, and Introduction to Computer Science in Python. CodeHS expects this curriculum to reach 500,000 students and 20,000 teachers over the next 3 years. CodeHS will also partner with high schools to train 1,000 teachers over the next 3 years, and is committed to expanding access to CS education to underrepresented minority students through curricula, professional development, and partnerships, including through a partnership with **Facebook**.
- **CoderDojo Indiana** is announcing plans to open 20 new programming clubs in the state this year. Each Dojo is a free-to-join programming club led by volunteers where students ages 7-17 learn to develop apps, games, and other interactive technology. To jumpstart this effort, the local **TechPoint Foundation for Youth**, a US2020 City

Network partner, will be offering an interactive, week-long program called Cool Coding Awareness Week in 20 communities throughout Indiana.

- **Girls Who Code** is committing to launch 1,500 CS clubs in the 2015-2016 school year, tripling its national footprint. This expansion will increase Girls Who Code's exposure to 40,000 students, up from 13,000 today. Girls Who Code Clubs provide a forum for girls to explore CS and build technical skills while increasing their confidence and building community with other girls interested in CS. The free, project-based curriculum is taught weekly by volunteer instructors, and host locations provide the necessary space and equipment.
- **Globaloria** is committing to train 400 educators in 300 of its partner schools and libraries in 2016 to teach CS. Globaloria's free courses are designed for teachers and students in grades 4-12 with no programming experience and limited technology skills, facilitating project-based, standards-aligned CSforAll.
- **Google** is expanding its efforts to support K-12 CS by:
 - Announcing \$1.4 million in RISE Award grants to 34 organizations who work with diverse student populations across the United States and 16 other countries to increase access and interest in CS.
 - Funding an additional 25 CS mentorship programs by the end of May through igniteCS.
 - Awarding \$100,000 in grants to build evaluation capacity to the winners of the inaugural CS OPEN grant competition, a pilot initiative with **National Girls Collaborative Project** for nonprofit organizations to learn about exemplary evaluation practices in CS education.
 - Continuing to support professional-development opportunities for exemplary CS teachers by funding an additional 36 institutions in the 2016-2017 school year through the Computer Science for High School (CS4HS) awards.
 - Launching an expanded model of the Computer Science Summer Institute (CCSI), a 3-week program for rising freshmen from historically underrepresented groups in CS that provides a practical introduction to CS.
- **Infosys Foundation USA** will support CS and maker educations through several new activities. This year, the Foundation will partner with organizations such as **CSTA**, **Code.org**, **Bootstrap**, and **Exploring Computer Science** to bring CS professional-development resources to more than 1,000 teachers, with a focus on teachers in high-poverty regions, and will partner with **DonorsChoose.org** to help teachers get tools and technology for their classrooms. Infosys Foundation USA will also work with organizations including the **Hispanic Heritage Foundation** and the **New York Academy of Sciences** to invest in mentoring and student support.

- Recognizing the powerful influence of parents on students, **Iridescent**, with support from the **Adobe Foundation**, will launch an open, online, video-based set of courses to help parents better support their children to become technology innovators and entrepreneurs. Iridescent expects the courses to reach 15,000 parents from underserved communities.
- **Kentucky Valley Educational Cooperative (KVEC)** is committing to reach more than 1,000 students with its free CS courses this year, up from more than 500 currently. KVEC will create a CS badge for teachers who get trained to bring Exploring Computer Science and AP Computer Science Principles courses to their high schools.
- Beginning this school year, **Kuato Studios** will work to reach thousands of schools across 30 states with free STEM games designed to inspire more girls and boys in CS and help teachers teach CS to their students in a fun and engaging way.
- **LA Makerspace** will expand its “Coding Crew” program to 10 new communities this year. Coding Crew teaches middle and high schoolers how to code, as well as principles of classroom management and pedagogy, so that they can go on to teach coding to other kids in their communities.
- **MV GATE** will make freely available a *Family Hour of Code Night Event Kit* to elementary schools for events in May and June, enabling any elementary school to put on this educational program. Guided by a teacher using an event script, the kit helps kids and their parents or guardians do their first hour of coding, together.
- **Nebo School District** in Utah County, UT, will offer a CS course at the middle- and high-school level district-wide next year. The district, which serves more than 31,000 students, will also work to expand its after-school coding camps and robotics classes, incorporate CS into the professional development of its science teachers, and sponsor field trips to expose student to CS-relevant careers.
- **Oracle** is announcing that it will invest an additional \$200 million over the next 18 months in direct and in-kind funds to support CS education in the United States. The investment will allow an additional 125,000 K-12 students to learn CS through the free Oracle Academy program. Oracle will provide participating K-12 schools with academic curricula, relevant assessments, software licenses, certification, and professional-development resources. Oracle is also expanding access to emerging CS fields for interested teachers and students, through opportunities such as their free Big Data Science Boot Camps. To complement its direct CS offerings, Oracle will invest more than \$3 million in nonprofit organizations focused on inspiring young girls and engaging other underrepresented students in pursuing STEM and CS

degrees. In addition, Oracle will continue its policy push to ensure that CS counts as an academic credit in K-12 schools in all 50 states, since it currently does in only 28 states.

- **Rex Programming** will hold free coding events and hackathons for local K-12 students in and around three cities in Texas (Irving, Coppell, and Dallas) this year, with the initial goal of teaching CS to 500 students through hands-on activities.
- **San Francisco Unified School District** is committing to expand CS to all middle-grade schools and to every comprehensive high school in the district for its 2016-2017 school year.
- **SAP** is announcing a goal to provide 700,000 students with hands-on STEM and CS experiences. Leveraging its existing alliance network with nearly 500 U.S. universities, SAP will help foster partnerships between universities and high schools that allow more students to participate in CodeJams, InnoJams, hackathons, and Design Thinking workshops. SAP will also help more companies in the SAP ecosystem support STEM learning through high-impact mentoring and curriculum mapping. In addition to its direct work, SAP will provide \$2.4 million in grants to nonprofits to promote STEM and CS education.
- **TechNet**, a network of technology CEOs and senior executives, will partner over the next year with **Harvard University's Institute of Politics Technology & Innovation Policy group**. The collaboration will seek to define key policy elements of a comprehensive CS program at the state level and review the progress of targeted states in implementing such programs.
- **USA Science and Engineering Festival**, in partnership with the **Dell Youth Innovation Advisors**, is announcing the three winners of the inaugural ENIAC Classroom Design Prize today. The prize challenged teams of high schools students to design cost-effective, innovative, and creative classroom alterations to engage more women in CS and STEM careers. The USA Science and Engineering Festival and Dell Youth Innovation Advisors will help disseminate information about successful outcomes of these approaches in order to scale their use for broader use in CS classrooms nationwide.
- **WNY STEM** will expand CS offerings this year in western New York by launching a mobile makerspace, a summer girls coding camp, a CS STEM Café series to increase mentoring by local STEM professionals, and a regional conference focused on expanding CS opportunities. WNY STEM will also launch a regional public-awareness Pledge Campaign in support of Computer Science for All.

- **Young People’s Project** is committing to invest \$5 million over the next 4 years to identify, train, and support an additional 200 high school and college students who will teach math to underserved elementary students. The model focuses on giving low-income students access to math-based programming through near-peer learning and teaching. The 200 additional math coaches will allow the program to reach 10 cities (up from 6 today) and to improve math outcomes for 1,000 K-8 students in 30 elementary schools (up from 14 today).
- **Youth Radio** is launching a national STEM and CS media initiative. With the complementary launch of a youth news network, the goal of the initiative will be to give real-world opportunities for young reporters to contribute to professional-level journalism on STEM topics, increase the overall amount of high-quality STEM journalism, and allow young developers to create new mobile and web-based technology tools for widespread use. This STEM media initiative, which will reach an estimated 6,000 youth nationally, will be in partnership with the **Massachusetts Institute of Technology (MIT)** and **UC Berkeley’s Information School**.

My Brother’s Keeper

On February 27, 2014, President Barack Obama launched the “My Brother’s Keeper” (MBK) initiative, a call to action to address persistent opportunity gaps faced by boys and young men of color and ensure all young people can reach their full potential. In February of this year, the Administration [announced](#) the creation of new STEM and entrepreneurship tracks within MBK – steps that build on the ongoing work of the Council on Women and Girls to ensure opportunities in STEM education throughout the workforce pipeline. Today, a first cohort of organizations are stepping up with their own independent commitments inspired by MBK that will help expand STEM opportunities, including for traditionally underrepresented minorities. These commitments include:

- The founder of **BLACK GIRLS ROCK!** is launching KING ME!, a new effort to empower and mentor boys of color in the STEM fields. Programming will include a science and technology summit to expose boys of color to STEM, a week-long leadership workshop, and a think tank disseminating data and research-based curricula and programs for boys of color.
- **Change Catalyst** will host five regional Tech Inclusion Summits this year. With 6,000 attendees expected overall, the goal of the events will be to convene leaders in K-12, higher-education, and coding schools together with tech recruiters, hiring managers, and diversity and inclusion leaders to establish best practices in improving and growing the pipeline of underrepresented tech hires. Change Catalyst will also host three separate career fairs.

- **Dream Big Foundation** and the **Neighborhood Start Fund**, based in New York City, NY, will expand their \$25,000 start-up pitch competition to six additional neighborhoods in the United States, beginning in summer 2016. By providing modest early-stage financing and additional social supports, the goal of the effort is to support entrepreneurs from low-income communities who are often overlooked.
- **Ferguson 1000** will invest \$10 million to train youth from underserved communities in CS and information technology and provide seed funds and mentorship to minority startups in Ferguson and the St. Louis County, MO, area. This effort will expand into 20 additional cities this year.
- The **Fortress Initiative** will open its first Disruptive Technology center in York, PA by the end of 2016, and centers in four additional cities across the central PA region by 2021. Through these centers, the Fortress Initiative and its partners, including **MANTEC** and **SCPa Works**, will engage 1,000 employers and provide technical skills training to 300 17 to 29-year-olds of all backgrounds, with a focus on young people of color, veterans, and women. In addition, the Initiative will raise a \$20 million, multi-city venture fund to invest in entrepreneurs and students who complete the Initiative's training.
- This year, the **Herman J. Russell Center for Innovation and Entrepreneurship (RCIE)** will open as a \$10 million inclusive tech incubator, maker space, and vertically integrated ideation ecosystem in southwest Atlanta, GA. The RCIE will offer opportunities for aspiring young scientists and entrepreneurs across the region to explore and refine their CS and technical skills and pursue their start-up goals. The RCIE is estimated to reach at least 500 entrepreneurs and students annually.
- **IDS** will, this year, offer 500 disconnected youth, those neither in school nor in work, free virtual coding boot camps, as well as relevant tablets, software, and educational content. The effort will focus on youth in jails, prisons, juvenile detention centers, and homeless shelters.
- **iSTEMS** will provide 500 young people this year with access to STEM-specific summer employment opportunities for high-school students and internships for college students majoring in STEM fields.
- **Lenovo**, together with the **NAF** (formerly the National Academy Foundation), is committing to add 20 more classrooms for the 2016-2017 academic year to the Lenovo Scholar Network academies, which provide tools and resources to help students – particularly students from urban, underrepresented communities and military families – become the next generation of mobile app developers. Lenovo is also committing to hold a second Lenovo in the Classroom Day, during which

Lenovo employees will visit (both virtually and in person) NAF academies to discuss future career opportunities in STEM, and spend time interacting with students to provide real-world advice and answer questions, as part of a work-based learning continuum.

- This year, the **McMikle Group, LLC.** will launch a youth entrepreneur program for young people in the greater Hartford area of Connecticut, offering entrepreneurship training to 100 young people in the first year of programming with plans to expand. The McMikle Group's community partner, the **Hartford Economic Development Corporation, Inc.**, will provide sponsorship and programming space.
- **Sankofa Global Project**, based in New York City, NY, will host hands-on tinkering workshops for 2,000 students in Manhattan and Brooklyn during the National Week of Making in June 2016. With a focus on bringing more underrepresented students into STEM fields, Sankofa Global also plans to scale its education program to 10 U.S. cities in the next 5 years.
- **Smithsonian Science Education Center (SSEC)**, in partnership with the **National Science Teachers Association** and the **Shell Oil Company Foundation**, will help at least 10 school districts develop 5-year strategic STEM-education plans to help increase STEM diversity. The plans will incorporate the LASER model, which uses inquiry-based science to improve achievement for all students not just in science, but also math and reading.

Climate Education and Literacy Initiative

Addressing the challenge of climate change and achieving the bold goals articulated in President Obama's Climate Action Plan will require a next-generation workforce equipped with knowledge and skills to develop and implement climate solutions. The commitments being announced today build on the call to action issued through the Climate Education and Literacy Initiative, launched in December 2014 to connect American students and citizens with the best available science-based information about climate change. Through the Initiative, Federal agencies and non-governmental entities are increasing learning opportunities for students, equipping educators with information and resources, enhancing climate-related professional development and training, and engaging citizens through place-based and informal climate education. New announcements being made in support of the initiative include:

- The **Alliance for Climate Education (ACE)** is committing to empower more than 5,000 K-12 teachers by the end of 2017 with tools, including multimedia video content and free lesson plans, to educate their students about climate change. In addition, this year, ACE will release a Spanish-language version of its online

multimedia climate education experience, “Our Climate Our Future”, and will launch a free online game that will empower young people to communicate the science of climate change to family and friends. ACE will also collaborate with research partners at Stanford University to further assess the effectiveness of its education program and contribute to the growing body of research in the field of climate-science education.

- The **Global Learning and Observation to Benefit the Environment (GLOBE)** program will, later this year, release an Elementary GLOBE Climate book for K-4 students. This book, “What in the World is Happening to Our Climate?”, complements six other Earth Systems Science Elementary GLOBE books, and will be freely available through the [GLOBE website](#). This project was supported by NASA through a grant to the University Corporation for Atmospheric Research’s Center for Science Education.
- During the spring and summer of 2016, the **National Oceanic and Atmospheric Administration (NOAA)** will host six free climate-science workshops with Federal, state, and non-governmental organization and community stakeholders. These workshops will provide formal and informal educators with opportunities to interact with experts in climate science, education, and communication; visits to facilities to explore innovations in climate research, mitigation, and adaptation; and interactive strategies educators can use to foster understanding and critical thinking about society’s climate challenges. Locations for the workshops are [Long Beach, CA](#); [Detroit, MI](#); [Salt Lake City, UT](#); [New Orleans, LA](#); [Boulder, CO](#); and [Charleston, SC](#).
- The **North American Association for Environmental Education (NAAEE)** is releasing a new, free issue guide, *Climate Choices*, which enables students to explore the advantages and disadvantages of multiple options for addressing climate impacts. Developed in cooperation with the **Kettering Foundation** and with input from **NOAA**, *Climate Choices* guides students through analyses of the costs and consequences of different climate solutions. NAAEE is working to have the guide adopted by at least 100 classrooms across the country by the end of this year, and is creating an online forum for teachers so that they can share lessons learned.

Incorporating STEM into Education for Young Learners

In conjunction with the Administration’s broader push to expand early-childhood education, private-sector organizations are stepping up and making new commitments to build statewide STEM programs for preschool and young elementary-school learners, equip every Head Start center across the country with STEM tools, and engage families with new media and cultural options. A full list of new commitments will be

released as a part of a White House event on early learning and STEM later this month. These include:

- **100Kin10** is awarding \$1.7 million to partners in New York State and has leveraged additional support from **Motorola Solutions** to develop ways to increase the reach and quality of engineering and CS teaching in Pre-K-12 schools. In addition, 100Kin10 is announcing participants in its second annual Fellowship Program, made up of 33 fellows representing a dozen partner organizations, who will focus on increasing active STEM learning in grades Pre-K-3, prototyping and testing new approaches that actively engage our youngest scientists, engineers, technologists, and mathematicians in STEM learning.
- **Common Sense Education** will produce a set of early STEM-education resources and tools, covering themes like Coding for Early Readers. These resources have the potential to reach more than 300,000 teachers in 100,000 schools, and 65 million households across the country.
- The **Heising-Simons Foundation** will partner with **The Fred Rogers Company** to support the production of 25 episodes of “Odd Squad,” a math-focused television show airing on PBS Kids, create games and an app, and hold free week-long summer math camps in 14 U.S. cities serving more than 400 children.
- The **Hispanic Information and Telecommunications Network (HITN)** will donate 10,000 STEM-focused Spanish/English Family Kits to informal learning settings (libraries and museums), community-based organizations, and national organizations – including home visitation programs – that serve low-income families in order to help expand young children’s access to STEM at home.
- **Learning Point Alaska, Inc.** is partnering with multiple Alaska Native organizations to deliver informal, technology-based STEM programming to elementary-school students and build capacity for local teachers in Native Villages throughout Alaska.
- The **Museum of Science, Boston** is launching a 3-year initiative to create a research-based Pre-K-Kindergarten engineering curriculum, which will build on the museum’s Engineering is Elementary curriculum, for schools to use to teach children ages 3-5.
- The **National Head Start Association** and **Lakeshore Learning** will set a goal to reach the one million children who are enrolled in Head Start programs with their “Recycle Your Way to STEAM” program.

- **Sesame Workshop**, the creators of Sesame Street, will develop “Make Believe with Math,” a research-based Massive Open Online Course (MOOC) for educators, which, along with other training resources, will be made freely available online.

Ongoing Momentum on the President’s Educate to Innovate Campaign

Organizations are committing to further strengthen the STEM-education pipeline and advance the overall goals of the President’s *Educate to Innovate* initiative. At the launch of the campaign, the President called for new, creative and effective ways to both engage and prepare students for the STEM fields. The commitments being made today include:

- **Arizona Technology Council Foundation** and the **Arizona Commerce Authority** are announcing a 3-year goal to help 800 K-12 schools create a “Chief Science Officer” (CSO) position within their student government. Since the CSO program launched in 2015, 138 CSOs have already been elected by their peers at 78 middle and high schools throughout Arizona. On campus, these CSOs promote expanded STEM learning, identifying opportunities such as speakers, field trips, and science nights, and ensuring that such opportunities reflect the interests and desires of their peers. Off campus, CSOs are advocating for school STEM opportunities at city councils, school boards, and chambers of commerce.
- **Digital Promise** and **Maker Ed** will expand the Maker Promise to hundreds of additional schools this year. The Maker Promise is a collaboration among the Department of Education, Digital Promise, and MakerEd to equip more schools with the resources and support they need to provide quality maker experiences to their students. Since the Maker Promise launched in March 2016, hundreds of school leaders from around the country have signed a concrete pledge to: (1) dedicate a space for making in their school or community; (2) designate a “champion of making”, who will be in charge of developing the school’s approach to maker education; and (3) display what students make, by hosting or participating in a showcase event. Schools participating in the Maker Promise will then become part of a national network of maker schools, and will have access to a suite of resources that will include things like curriculum, professional development, makerspace design, and storytelling resources.
- The **Global Learning Project** is committing to hosting an annual, 7-week “STEM & Robotics” Summer Enrichment Program for economically disadvantaged, underserved youth ages 12-17. The Global Learning Project is also committing to establishing a learning center in Cincinnati, OH, for youth and young people ages 12-26 that offers learning opportunities in STEM & Robotics, Financial/Computer & Reading Literacy, Entrepreneurship, and Global Learning Disciplines after school

and on weekends. This work complements the Global Learning Project's effort to create a mobile SMART Bus to promote hands-on activities in the STEM disciplines. The Global Learning Project is aiming to reach 5,000 students by 2020 through these efforts.

- **HipScience LLC** is committing to provide at least 75 schools by the end of 2016 with a Mantis Open STEM kit – a measurement sensor and accompanying curriculum. Hip-Science will hold an online teacher-training session for the kit recipients.
- **Knack** is committing to discover and identify over the next 12 months 100,000 young Americans across all walks of life who have the potential for high achievement in STEM education and careers, and match them with education programs and employment opportunities. To achieve this goal, Knack will: (1) provide its predictive data-analytic technology platform for free to relevant state, city, and local agencies, as well as schools and community-based organizations; (2) leverage its existing technology infrastructure and user base to identify high potential STEM users; and (3) build on its partnerships with higher education institutions, skilling organizations, community-based organizations, and leading high-volume employers across the country.
- **LabCentral** is partnering with **BioBuilder** to establish a new laboratory dedicated to STEM education. The laboratory, which will be located at LabCentral, will engage students in exploring how the building blocks of synthetic biology can be usefully applied in a range of areas. The laboratory will offer hands-on programming – including biodesign lessons, afterschool clubs, and independent projects – for hundreds of students, with a focus on reaching students from high-need schools in the Boston/Cambridge area.
- **Mozilla**, in partnership with the **National Science Foundation** and **US Ignite**, is committing to expanding its efforts to explore how high-speed networks can be used to make STEM learning more immediate, immersive, and equitable, particularly for students in need. In 2016 and 2017, three new cities will be awarded \$150,000 each to support projects that show the promise of next-generation networks for learning.
- **New York Hall of Science (NYSCI)** is committing to reach 5,000 high-need K-12 students and families annually through programs run at NYSCI, in the community, and through the local school system.
- The **PBS** science series **NOVA** is announcing that it will release a “Black Holes” game, a free iPad app where astrophysics and fun collide. Players will learn the basics of orbital dynamics and gravity in their quest to go supernova and collapse into a black hole, which has the potential to expand their interest in astronomy and other STEM subjects.

- **Sciencing Inc.**, a community nonprofit, and a local state agency will together develop and offer a summer “Science in the Park” program for 50–100 students in grades K–3. Sciencing Inc. is also committing to creating supplemental teacher-development opportunities, summer camps, afterschool programs, and other instruction to help teach science concepts to young students early. Sciencing Inc. expects the afterschool program to reach 100-200 young students annually.
- **University Innovation Fellows** is announcing that 27 schools have joined #uifresh, an initiative that exposes first-year students to design thinking and STEM experiences. The University Innovation Fellows program introduced the #uifresh initiative with ten universities at last year’s White House Science Fair. Under this initiative, students and faculty work to expose all incoming freshmen at a school to the types of experiences in design thinking, entrepreneurship, and innovation that will attract and retain more incoming students in STEM disciplines. The University of Wisconsin Milwaukee, Colorado School of Mines, and Bethune-Cookman are among the new universities joining the effort. For more details, click [here](#).
- **US2020** is launching a new online matching platform to connect more STEM professionals to volunteer opportunities, setting an initial goal to serve 20,000 students this year. The new platform will enable any nonprofit organization or classroom teacher to connect easily with a STEM professional. The development of the new platform has been led by **Tata Consultancy Services** with design support from **JMS**. Current partners to the effort include **Alcoa Foundation, Carnegie Corporation of New York, CA Technologies, Chevron, Cisco, Cognizant, Discovery Communications, Raytheon, SanDisk, Tata Consultancy Services, and Texas Instruments**. In 2016, US2020 will use the platform as a central hub to engage more than 1,000 corporations and civic organizations and serve more than 20,000 students with a focus on girls, traditionally underrepresented minority students, and children from low-income families. In addition, to celebrate and encourage more STEM mentoring, US2020, along with Chevron and Tata Consultancy Services, will host the second annual STEM Mentoring Symposium and Awards later this year.

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