

FACT SHEET: Obama Administration Engages Students, Educators, and Leaders on Climate Education and Literacy

Washington, DC – Today, the White House Office of Science and Technology Policy will host a Back-to-School Climate Education Event, bringing together over 150 outstanding students, educators, and education policy leaders from across the country. As part of this event, the Administration is announcing new commitments from Federal agencies and external collaborators to enhance climate literacy. These actions build off of the call-to-action issued through the [Climate Education and Literacy Initiative](#), launched in December 2014 to connect students and citizens with the best-available, science-based information about climate change.

Addressing the climate-change challenge and the bold goals articulated in President Obama’s Climate Action Plan will require a next-generation workforce that is equipped with the knowledge and skills to develop and implement solutions. The commitments being announced today by the Administration and independent entities support progress towards these goals.

Administration Commitments

Expanding Science On a Sphere® to Include Renewable Energy Data and ClimateBits Videos. Science On a Sphere® (SOS) is a global display system, developed by National Oceanic and Atmospheric Administration (NOAA) researchers, that uses computers and video projectors to display planetary data onto a six-foot-diameter sphere, analogous to a giant, animated globe. The Department of Energy (DOE) is announcing the release of new energy-related SOS datasets – representing wind, solar, and geothermal energy – to help people learn about renewable energy resources around the world via visualizations. Today, the following members of the Association of Science Technology Centers will begin presenting these new resources to their visitors:

- Boonshoft Museum of Discovery, Dayton, OH
- Children’s City, Dubai, United Arab Emirates
- Danville Science Center, Danville, VA
- Denver Museum of Nature and Science, Denver, CO
- Imagination Station Science and History Museum, Wilson, NC
- ‘Imiloa, the Astronomy Center of Hawai’i, Hilo, HI
- International Museum of Art and Science, McAllen, TX
- Maryland Science Center, Baltimore, MD
- McWane Science Center, Birmingham, AL
- Nurture Nature Center, Easton, PA
- Oregon Museum of Science and Industry, Portland, OR

- Orlando Science Center, Orlando, FL
- Science Central, Fort Wayne, IN
- South Florida Science Center and Aquarium, West Palm Beach, FL
- Techmania Science Center, Pilsen, Czech Republic
- The Wild Center: Natural History Museum of the Adirondacks, Tupper Lake, NY

Additionally, NOAA, the University of Maryland, and NASA's Goddard Space Flight Center have collaborated to produce a series entitled *ClimateBits*, minute-long videos that explain and visualize key concepts in climate science. These resources are available around the globe through NOAA's [SOS network](#), which has more than 120 member institutions worldwide, including many of the world's largest science museums, visitor centers, zoos, aquariums, laboratories, and schools.

Announcing a National Climate Game Jam to Support Climate Literacy. In October 2015, game developers, climate scientists, and educators will gather at sites around the country to create new game prototypes that allow players to learn about climate change through science-based, interactive experiences. This event follows on an initial commitment from NOAA through the Climate Education and Literacy Initiative. Today, NOAA is announcing that the collaboration has grown to include a number of partners who will host game jams: the Smithsonian Institution, the California Academy of Sciences, the Wilson Center, the Polar Learning And Responding (PoLAR) Climate Change Education Partnership, the Paleontological Research Institute, and STEMhero. Promising prototypes will be provided with development support to complete games for educators and students to use in the classroom. In November 2015, visitors to the Smithsonian National Museum of Natural History (NMNH) will be able to play selected games created during the jam. NMNH will also host an after-hours event for college students and young adults to provide an opportunity for game testing and conversations with experts and game designers.

Conducting Climate Workshops for Educators. As part of NOAA's portfolio of activities to strengthen ocean, climate, and atmospheric science education, the Climate Stewards Education Project (CSEP) will support six regional workshops in 2016, focused on topics such as climate impacts on natural resources, actions to mitigate and adapt to climate change, and learning through modeling and simulations. CSEP will bring hundreds of K-12 and college and university educators into active communities of climate learning, providing them with sustained professional development, collaborative tools, and support to build a climate-literate public that is actively engaged in climate stewardship.

Launching a New Partnership for Digital Climate and Ocean Education Resources. NOAA is announcing a partnership with the Public Broadcasting Service (PBS) to incorporate NOAA's trusted scientific content into PBS LearningMedia, making resources available to 1.6 million registered users of this online educational platform.

NOAA will collaborate with WGBH, STEM Lead for PBS LearningMedia, to incorporate assets from climate.gov and NOAA's Ocean Today sites – providing near real-time data and high-quality videos on topics relevant to the classroom. Moving forward, NOAA will work with WGBH to develop future content for the site.

Improving Climate Literacy of Federal Employees from Natural-Resource

Management Agencies. This October, Federal natural-resource management agencies, including the Department of the Interior (DOI), the U.S. Department of Agriculture (USDA), the Environmental Protection Agency (EPA), NOAA, and the U.S. Army Corps of Engineers (USACE), will release a framework for building the climate literacy and capabilities among their agency staff. The framework, which was called for in the Administration's Priority Agenda for Enhancing the Climate Resilience of America's Natural Resources, will define shared climate-education goals among agencies, describe a strategy for building overall workforce climate literacy and technical staff capabilities, and articulate an approach for collaborating on climate education with external partners and stakeholders.

Launching Climate Science and Communication Courses in 2015-2016 through an

Interagency Partnership. In October 2015 in Anchorage, Alaska, the Earth to Sky partnership, led by the National Aeronautics and Space Administration (NASA), National Park Service (NPS), U.S. Fish & Wildlife Service (USFWS), and NOAA, will conduct the first of a planned series of regionally focused courses on climate science and effective communication techniques. The course, which targets informal-education professionals, is sponsored by NASA's Arctic Boreal Vulnerability Experiment (ABOVE) and will include content on climate science and effective communication techniques. Participants will develop action plans for using course content to educate many thousands of visitors to Alaska's National Parks, Bureau of Land Management sites, and other locations about the causes, consequences, and solutions associated with climate change. This pilot course will form the model for additional courses to be held in 2016 in various regions of the country.

Developing an Online Educator Framework. New science education standards represent an opportunity to prepare teachers to address the interdisciplinary nature of climate change and societal responses. NOAA, in collaboration with TERC and the Cooperative Institute for Research in Environmental Sciences (CIRES) at the University of Colorado Boulder, is committing to develop an online Educator Framework and supporting resources for Teaching Climate and Energy Literacy for NOAA's climate.gov this winter. The Framework will support K-12 teachers to provide instruction across the curriculum laid out in the National Research Council's Framework for K-12 Science Education. This collaboration will leverage the content of the Climate Literacy and Energy Awareness Network (CLEAN) collection and the Third National Climate Assessment to greatly expand the Teaching Climate section of climate.gov.

External Commitments

The White House Office of Science and Technology Policy issued a [call-to-action](#) in October 2014 for organizations to lift America's game in climate education. Today, following on the initial set of announcements articulated at the [launch](#) of the Climate Education and Literacy Initiative in December 2014, a number of external organizations are announcing additional commitments and activities that enhance climate literacy. These include: programs and projects to integrate best-available climate science into classrooms and visitor experiences; tools and resources to connect students, educators, and visitors to climate information; events and activities that engage students and educators in local climate solutions; training opportunities for educators; and more.

The Alliance for Climate Education (ACE). ACE educates young people about the science of climate change and empowers them to take action. ACE is committing to launch a first-of-its-kind digital climate-education program for high schools this fall. This online experience will be modeled after the live ACE Assembly that provides an interactive climate-education experience for high-school students. Having already reached 2 million students in person, the digital program will enable ACE to scale its impact to educate and activate millions more students and educators in currently under-reached communities.

Climate Central. Next month, Climate Central will launch a new website (WxShift) that delivers all of the hallmarks of the weather forecast but uses them as a jumping-off point to teach people about climate change. WxShift will give people a deeper understanding of the environment where they live by connecting weather with local and relevant climate trends and analyses. Users will have access to information on key climate-change indicators, regularly updated videos of scientists linking weather to the larger climate picture, and daily climate-change news from journalists, meteorologists, climate scientists, and expert contributors. This resource will serve as an easy, engaging way for people to learn more about climate change through the ways they experience the weather.

Climate Interactive. Today, Climate Interactive, in partnership with the Massachusetts Institute of Technology Sloan School of Management and University of Massachusetts-Lowell Climate Change Initiative, is launching the World Climate Project, featuring a "serious game" that puts players into the role of international climate-solution negotiators. The launch includes publicly available software, new facilitator materials, and a new release of the greenhouse-gas emissions simulation tool, C-ROADS. Climate Interactive aims to reach at least 10,000 people by December 2015, increasing awareness of the global challenges in addressing climate change in advance of the United Nations Framework Convention on Climate Change (UNFCCC)'s 21st Conference of the Parties (COP21).

CLEO Institute. The Climate Leadership Engagement Opportunities (CLEO) Institute, based in Miami, Florida, is announcing that this fall, it will begin to offer its Climate Science, Seriousness, and Solutions Training Program to officials across the region of the Southeast Florida Regional Climate Compact. The Compact region includes 108 municipalities and over 5 million residents and is highly vulnerable to the impacts of climate change. CLEO's Program will draw upon the Third National Climate Assessment, the President's Climate Action Plan, and current research on climate education and engagement to enhance understanding and climate readiness. CLEO piloted the program this summer, working with City of Ft. Lauderdale officials, to train more than 2,000 employees and inform their climate-resilience efforts. The initiative may evolve into a national program over the coming months and years.

Climate Generation: a Will Steger Legacy. Climate Generation will engage educators in the UNFCCC COP21 meeting, to be held in December in Paris, as both learners and climate communicators for their schools and communities. A delegation of ten Education Ambassadors will be sent to the COP21 through Climate Generation's Window into Paris program. These teachers, representing diverse subject areas, grade levels, educational settings, and geographic regions, will share their unique perspectives with thousands of students, educators, citizens, and policy leaders through daily blogs and webcasts. Their firsthand accounts of COP21 will provide invaluable insight and opportunities to integrate climate change into classrooms throughout the country.

Earth Day Network and Rovio Entertainment. Earth Day Network and Rovio Entertainment, the creators of Angry Birds, have teamed up to create "Champions for Earth," a global Angry Birds Climate Change Tournament. The Tournament will take place in September, during Climate Week NYC and the United Nations General Assembly, and will engage millions around the globe. The game will include science-based climate messages that have been developed in consultation with experts from Federal agencies and academic institutions. Champions for Earth will connect players all over the world, including millions of "millennials," with climate-change information and actions.

Green Schools, Inc. Today, Green Schools, Inc. is announcing that it will hold the first annual "Bringing the Green Future Home" competition, a competition open to K-12 students and schools, later this fall. Under the competition, students will compete for scholarships and prizes by creating educational videos, blogs, and vlogs that inspire action on climate change and other environmental challenges. Students will then work to amplify their videos through a variety of social-media channels.

National Wildlife Federation (NWF). Today, NWF is launching new online climate-education resources for back-to-school. Climate Classroom is a new website developed in conjunction with the filmmakers and supporters for the documentary series *Years of Living Dangerously*. The lesson plans and resources (designed for students from grades

6-12 and college undergraduates) correspond to the science and subject matter presented in the documentary series; they encourage students to analyze the relevance of climate change to their daily lives and investigate how they, as individuals, can be part of the solution. This interdisciplinary curriculum highlights careers in science, provides writing prompts, and outlines service-learning projects to connect science to language arts, social studies, and life skills. Climate Classroom Kids – a companion resource for younger students (grades K-5), their parents, and educators – utilizes photography and stories of animals to enhance understanding of the effects of climate change on wildlife habitat and introduces students to actions that reduce carbon pollution. Combined, the two programs provide educational information for a wide range of learners and leverage NWF’s educational resources and programs for schools, campuses, and homes.

TERC, the University of Texas Austin, North Carolina State University, and Michigan State University. These institutions, with funding from the National Science Foundation (NSF), NASA, and NOAA, have partnered to develop a set of investigation-based EarthLabs modules to help students gain skills in Earth and climate sciences. This winter, these institutions will release the finalized set of nine modules, designed to help high-school students increase their skills to draw conclusions from data, make decisions based on evidence, and effectively communicate what they have learned about climate and environmental change. The capabilities that students will develop through their work with the EarthLabs modules will prepare students to meet the National Research Council's Framework for K-12 Science Education and the Next Generation Science Standards and train them to contribute as climate-literate members of the future workforce.

WGBH Boston. WGBH Boston, PBS’s largest producer for television, the web, and mobile, is announcing that it will host a Forum on Digital Media for Climate Education in November 2015. Through support from The Kendeda Fund, this program will bring together 200 key stakeholders – including teachers, media producers, educational researchers, and policy makers – to explore the evolving landscape, products, and engagement models surrounding digital media in support of climate-science education. Presentations will be streamed live to online audiences nationally, and viewers will be able to participate in panel discussions via social media.