i-STEAM with CSATS

PennState College of Education

CSATS Bridging Research & Education in STEM Center for Science and the Schools

CENTER FOR THE PERFORMING ARTS AT PENN STATE

The Art of Science

Primate Perspectives*: A Crash Course on Our Closest Living Relatives*

Production still from *Me...Jane: The Dreams & Adventures of Young Jane Goodall*

Presented by

Margarita Hernandez and Lily Doershuk
Department of Anthropology
and
Gabriel Knowles (CSATS)

December 1, 2018 (9:00 am – 3:30 pm)

Location: Matson Museum of Anthropology, University Park, PA 16802

Target Audience: Elementary Teachers

In this workshop, teachers will learn about non-human primates through explorations of their anatomy, morphology, diet, senses, taxonomy, phylogeny, and tool-use through a series of rotating stations. With the guidance of instructors, the teachers will then bring all of their knowledge together to understand primate locomotion and habitat use, with a final concluding discussion on primate conservation that directly ties into Jane Goodall's important work. This workshop will serve as background information for the upcoming play *Me...Jane: The Dreams & Adventures of Young Jane Goodall*, and provide teachers with new knowledge and research on our closest living relatives that can be directly translated into the classroom for their students.

This workshop is FREE to all educators with ACT 48 credit available.

All workshop participants can receive two-thirds transportation costs paid for by the Center for Performing Arts. By participating in an essay contest, one lucky teacher will win tickets for their classroom to see the matinee performance of *Me … Jane: The Dreams and Adventures of Young Jane Goodall* at the Eisenhower Auditorium.

All i-STEAM Workshops are aligned to PA State Standards, Next Generation Science Standards and Common Core. A continental breakfast and lunch are provided by the Center for Science and the Schools (CSATS). Maximum enrollment is 24, please register online now to reserve a spot.

Sponsored by
The Penn State College of Education
Center for Science and the Schools
182 Chambers Building, University Park, PA 16802

To register visit: http://csats.psu.edu
For more information: e-mail Gabe Knowles at glk54@psu.edu or call 814 865-1713

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This workshop focuses on the *Science as Inquiry* strands that are embedded throughout all content areas in both Pennsylvania Academic Standards for **Science and Technology and Engineering Education** and **Environment and Ecology** for grades K through 7. Below are the *Science as Inquiry* standards by grade band.

Grades K - 4	Grades 5 - 7
• Distinguish between scientific fact and opinion. • Ask questions about objects, organisms and events. • Understand that all scientific investigations involve asking and answering questions and comparing the answer with what is already known. • Plan and conduct a simple investigation and understand that different questions require different kinds of investigations. • Use simple equipment (tools and other technologies) to gather data and understand that this allows scientists to collect more information than relying only on their senses to gather information. • Use data/evidence to construct explanations and understand that scientists develop explanations based on their evidence and compare them with their current scientific knowledge. • Communicate procedures and explanations giving priority to evidence and understanding that scientists make their results public, describe their investigations so they can be reproduced and review and ask questions about the work of other scientists.	• Understand how theories are developed. • Identify questions that can be answered through scientific investigations and evaluate the appropriateness of questions. • Design and conduct a scientific investigation and understand that current scientific knowledge guides scientific investigations. • Describe relationships using inference and prediction. • Use appropriate tools and technologies to gather, analyze, and interpret data and understand that it enhances accuracy and allows scientists to analyze and quantify results of investigations. • Develop descriptions, explanations, and models using evidence and understand that these emphasize evidence, have logically consistent arguments and are based on scientific principles, models, and theories. • Analyze alternative explanations and understanding that science advances through legitimate skepticism. • Use mathematics in all aspects of scientific inquiry. • Understand that scientific investigations may result in new ideas for study, new methods or procedures for an investigation, or new technologies to improve data collection.

Mathematics Standards - 2.4 Measurement, Data, and Probability					
Grade K	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**
CC.2.4.K.A.1 Describe and compare attributes of length, area, weight, and capacity of everyday objects.	CC.2.4.1.A.1 Order lengths and measure them both indirectly and by repeating length units.	CC.2.4.2.A.1 Measure and estimate lengths in standard units using appropriate tools.	CC.2.4.3.A.1 Solve problems involving measurement and estimation of temperature, liquid volume, mass, and length.	CC.2.4.4.A.1 Solve problems involving measurement and conversions from a larger unit to a smaller unit.	CC.2.4.5.A.1 Solve problems using conversions within a given measurement system.

English Language Arts - 1.5 Speaking and Listening					
Grades K - 2	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**	**Grade 5**
CC.1.5.K.A Participate in collaborative conversations with peers and adults in small and larger groups.	CC.1.5.1.A Participate in collaborative conversations with peers and adults in small and larger groups.	CC.1.5.2.A Participate in collaborative conversations with peers and adults in small and larger groups.	CC.1.5.3.A Engage effectively in a range of collaborative discussions on grade-level topics and texts, building on others' ideas and expressing their own clearly.	CC.1.5.4.A Engage effectively in a range of collaborative discussions on grade-level topics and texts, building on others' ideas and expressing their own clearly.	CC.1.5.5.A Engage effectively in a range of collaborative discussions on grade-level topics and texts, building on others' ideas and expressing their own clearly.