

The Art of Science

Inspired by Insects: *Diary of a Worm, a Spider and a Fly*



Presented by

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and

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with assistance from

Entomology Graduate Student Outreach Committee

October 6, 2018 (9:00 am – 3:30 pm)

Penn State University

Location: Eisenhower Auditorium Conference Room

Target Audience: K - 3 Teachers



Explore our magnificent world on a much smaller scale that is inhabited by a vast array of insects, spiders, worms and other invertebrates that live underfoot. Through the perspective of a butterfly we will learn about the life cycle of this fascinating insect and how it copes with life on a daily basis. In this workshop teachers will learn ways to integrate literacy, mathematics, and science into the classroom, sparking student curiosity and wonder about the world of insects and their invertebrate friends.

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

While all workshop participants can receive two-thirds busing costs paid by the Center for Performing Arts, one lucky teacher will win tickets for their classroom to see the matinee performance of Dallas Children's Theater production of *Diary of a Worm, a Spider, and a Fly*.

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 on-line 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**

Grade K	Grade 1	Grade 2	Grade 3
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Science and Technology and Engineering Standards & Environment and Ecology Standards			
3.1.K.A1 Identify the similarities and differences of living and nonliving things.	3.1.1.A1 Categorize living and nonliving things by external characteristics.		3.1.3.A1 Describe characteristics of living things that help to identify and classify them.
3.1.K.A3 Observe, compare, and describe stages of life cycles for plants and/or animals.		3.1.2.A3 Identify similarities and differences in the life cycles of plants and animals.	3.1.3.A3 Identify differences in the life cycles of plants and animals.
4.1.K.D Observe and describe what happens to living things when needs are met.	4.1.1.D Identify living things that are threatened, endangered, or extinct.	4.1.2.D Identify differences in living things (color, shape, size, etc.) and describe how adaptations are important for survival.	4.1.3.D Identify organisms that are dependent on one another in a given ecosystem. Define habitat and explain how a change in habitat affects an organism.

English Language Arts Standards			
CC.1.2.K.C With prompting and support, make a connection between two individuals, events, ideas, or pieces of information in a text.	CC.1.2.1.C Describe the connection between two individuals, events, ideas, or pieces of information in a text.	CC.1.2.2.C Describe the connection between a series of events, concepts, or steps in a procedure within a text.	CC.1.2.3.C Explain how a series of events, concepts, or steps in a procedure is connected within a text, using language that pertains to time, sequence, and cause/effect.
CC.1.2.K.G Answer questions to describe the relationship between illustrations and the text in which they appear.	CC.1.2.1.G Use the illustrations and details in a text to describe its key ideas.	CC.1.2.2.G Explain how graphic representations contribute to and clarify a text.	CC.1.2.3.G Use information gained from text features to demonstrate understanding of a text.
CC.1.4.K.W With guidance and support, recall information from experiences or gather information from provided sources to answer a question.	CC.1.4.1.W With guidance and support, recall information from experiences or gather information from provided sources to answer a question.	CC.1.4.2.W Recall information from experiences or gather information from provided sources to answer a question.	CC.1.4.3.W Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.
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 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.

Mathematics Standards			
CC.2.4.K.A.4 Classify objects and count the number of objects in each category.	CC.2.4.1.A.4 Represent and interpret data using tables/charts.	CC.2.4.2.A.4 Represent and interpret data using line plots, picture graphs, and bar graphs.	CC.2.4.3.A.4 Represent and interpret data using tally charts, tables, pictographs, line plots, and bar graphs.