SSU CEI Virtual Elementary Education Programs: Spring 2021

The SSU Center for Environmental Inquiry (Center) seeks to create an engaged and environmentally-ready society, one in which students at all levels can gain the skills to find solutions to environmental challenges. We believe that elementary school students thrive when connected to higher education, knowledgeable naturalists, and excited, enthusiastic college students.

This spring, we are offering Center Virtual Elementary Education Programs that use questions to keep students engaged and help prepare them (and teachers!) for optional future in-person SSU Osborn Preserve field trips. During programs, students have the opportunity to observe and interact with the natural world, a practice that has been shown to improve mental, physical and cognitive health.[1]

Center virtual programs are focused on observation and Life Sciences standards. One-hour programs using Zoom are scheduled on school days from March 29 – May 14, 2021. Program dates and times are flexible. Programs are for one class or could be arranged for more than one class of similar grade level (at the same school).

To apply, please email ssu.preserves@sonoma.edu (subject: Virtual Osborn Elementary Program) with your school name, teacher name, grade level, number of students in your class, and program choice(s). We will reach out to the teacher to schedule the program(s) and share more details about the program plan.

For priority scheduling, please apply by February 22. The final application deadline is March 1.

All Programs:

The program Zoom link will be provided to the teacher. However, we do accommodate the use of Google Meet.
Teacher Prep Time: 15 minutes
Teacher/parent involvement: none (assuming students are familiar with the use of a virtual classroom)

[1] E.g. Weeland et al. 2019, Shams and Seltz 2008, Dadvand et al. 2015, Van Aart et al. 2018, Song et al. 2016, Bratman et al. 2015

Program Options:

Roaring Waters!

Description: Water in the North Bay roars in the wet season! Through pictures and video clips, naturalists introduce students to the wet and wild habitats—so different from dry-season habitats—in and around Copeland Creek at SSU's Fairfield Osborn Preserve. Students generate ideas about how organisms can survive such drastic seasonal change. (photo credit: Neal Ramus)

Then students accompany naturalists on a livestreamed journey. With cameras and magnifiers, we examine what we can find during the wet season, such as colorful mushrooms, vibrant moss and active amphibians, while our Zoom hosts prompt students to ask questions, notice patterns, and share ideas about the adaptive functions of organismal structures. We will then see how creeks downstream in the Laguna de Santa Rosa watershed also change seasonally, and what students notice about seasonality in their own local waterways.

Standards: Crosscutting Concepts: Patterns and Structure and Function. Specific standards can be found here.[2]

Science Practice: Close observation of the natural world is foundational to the practice of biological science, and can serve as inspiration for other important endeavors such as art and technology (biomimicry). Curiosity, as a form of motivational "giftedness", has been correlated significantly with academic and life success, as well as openness to new ideas.[3]

Grade Level: 3-5

Program Length: 1 hour

Bilingual Options: Bilingual programs may be available upon request.

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[2] •3-LS3-2 Heredity: Inheritance and Variation of Traits – Use evidence to support the explanation that traits can be influenced by the environment
•3-LS4-3 Biological Evolution: Unity and Diversity – Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all
•4-LS1-1 From Molecules to Organisms: Structures and Processes – Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior and reproduction

[3] Gottfried et al. 2006, Gottfried et al. 2016, Kahan et al. 2017

Animals and Signs: What Can We Find?

Description: The wet season is great time to find evidence! If you've ever seen animal tracks in mud, or seen a frog laying eggs in a pond, you know how many animals and how much animal sign shows up in the winter. Through pictures and video clips, our naturalists introduce students to SSU's Fairfield Osborn Preserve, where students generate ideas about what signs animals might leave behind. Naturalists then share great places to find evidence (and often animals themselves!), such as under rocks, logs and coverboards. (photo credit: Neal Ramus)

Then students accompany naturalists on a livestreamed journey. With cameras and magnifiers, we examine animals while our Zoom hosts prompt students to ask questions, notice patterns, and share ideas about the adaptive functions of animal structures. We will then discuss how students can find animals and animal sign in their own local area.

Standards: Crosscutting Concepts: Patterns and Structure and Function. Specific standards can be found here.[4]

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