

ELA Superheroes: Snapshots of Environmental Literacy in California Classrooms



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Kindergarten Snapshot: *Monarch Butterfly Conservation - Inspiring Civic Engagement Through Research in Kindergarten*

Ms. Wilson and Ms. Smith's monarch butterfly habitat restoration unit artfully merges key learning domains of reading, writing, art, science, and social-emotional learning around the conservation of monarch butterflies, emphasizing the critical role of milkweed plants to their life cycle. Through a blend of research, storytelling, art projects, and real-world advocacy, their students embark on a journey from classroom inquiry to community action, culminating in a partnership with their local zoo to establish monarch waystations.

The unit begins by exploring data with a visual representation of declining monarch butterfly populations through the use of mason jars and pom-poms that represent the monarch populations by year ([UDL Checkpoint 3.1](#)). This recruits student interest by optimizing relevance, value, and authenticity while activating prior knowledge and highlighting relationships between humans, monarchs, and their habitats ([UDL Checkpoint 7.2](#)). Students begin to research what monarch butterflies need to survive through a differentiated text set that is accessible to all students regardless of ability. Ms. Wilson and Ms. Smith do not give students the answers, but rather allow students to discover both independently and through group reading the harmful and helpful human impacts, including the fact that monarch larvae only eat milkweed leaves and that deforestation in Mexico is also a contributing factor to monarch population decline. This activity also addresses EP&C Principle 2: People Influence Natural Systems. These introductory activities provide multiple means of engagement (UDL Guideline 7) and representation of information (UDL Guideline 1). The students genuinely care about monarchs, which leads to increased motivation and engagement with meaning making.

Kindergartners are not too young to advocate for change, and so as a class, they write a letter addressed to their school leaders advocating for milkweed planting and space for a monarch waystation. This provides another opportunity to practice utilizing their newly acquired vocabulary and science content knowledge with an authentic audience. Additionally, students practice synthesizing the information they gained through informative texts to formulate an opinion. In order to prepare them for letter-writing, Ms. Wilson and Ms. Smith take information from Monarch Watch's website about building official waystations and translate it into Kindergarten-accessible text through which students practice a variety of literacy-building and phonics strategies, such as identifying the letter of the week, circling sight words, highlighting and defining new vocabulary words, looking for evidence, and asking and answering text-dependent questions. Their empathy for their native monarchs provides students genuine motivation to use their content knowledge for the purpose of civic engagement.

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Ms. Wilson and Ms. Smith model fostering community and collaboration with their local zoo ([UDL Checkpoint 8.3](#)), providing students with a physical space for milkweed restoration and another authentic audience to present their research and advocacy letter. Students practice effective expression as they present their letter and research to a panel of zoo staff and then field questions about the information they presented. This addresses EP&C 3C: Human practices can alter the cycles and processes that operate within natural systems. The final culminating piece of the unit is a presentation that invites families to act as journalists and interview their students not only about their advocacy, but about the books they read and the stories and art they also created as part of the unit.

Ms. Wilson and Ms. Smith also include collaborative group art pieces into the unit, which not only encourage teamwork and friendship ([UDL Checkpoint 8.3](#)), but support students while they are completing their final presentations by giving students a visual reminder of their learning. This approach illustrates how integrating environmental literacy can streamline teaching across multiple disciplines offering time-saving benefits while infusing the classroom with joy and excitement for both teachers and students. Ms. Smith reflects on a student who told her on a daily basis that he thought school was boring and did not want to be there: “When we started talking about monarchs, it really captivated him, and he stopped wanting to walk away and play with the blocks. He wanted to be part of the conversation, and he wanted to be part of reading and learning because he began to really care about something. He began to see that not only is learning fun, but learning matters.”

| Framework Highlights | Lesson Details |
|---|--|
| <p>UDL Checkpoint 7.2: Optimize Relevance, Value, and Collaboration</p> | <p>The activities in this unit are culturally relevant and place-based. Learning outcomes are authentic and communicate to real audiences, in this case, the school and zoo community. The tasks allow for active participation in solving a relevant environmental problem, in this case, providing real monarch habitat.</p> |
| <p>EP&C Principle 2A: People Influence Natural Systems Direct and indirect changes to natural systems due to the growth of human populations and their consumption rates influence the geographic extent,</p> | <p>The activities in this unit explore the impacts of growth of human populations as well as resource extraction on the monarch butterfly populations. The activities also help students understand the importance of milkweed to monarch butterfly habitat and survival.</p> |

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composition, biological diversity, and viability of natural systems.

CA Standards for ELA/Literacy

- **CCSS.ELA-LITERACY.RI.K.1:** With prompting and support, ask and answer questions about key details in a text.
- **CCSS.ELA-LITERACY.W.K.2:** Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
- **CCSS.ELA-LITERACY.SL.K.1:** Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.

Related CA Next Generation Science Standards

- **K-LS1-1:** Use observations to describe patterns of what plants and animals (including humans) need to survive.
- **K-ESS2-2:** Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
- **K-ESS3-3:** Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

Environmental Principles & Concepts

- **EP&C 2A.** Direct and indirect changes to natural systems due to the growth of human populations and their consumption rates influence the geographic extent, composition, biological diversity, and viability of natural systems.
- **EP&C 3A.** Human practices can alter the cycles and processes that operate within natural systems.

Sources

This interdisciplinary unit was inspired by and based on the unit: [Amplify Science California: The Needs of Plants and Animals](#). The unit asks students to take on the role of scientists and plan for a fictional community garden. Ms. Smith and Ms. Wilson go further, and have students present and implement plans for actual gardens in their community.

Additional Information

Article: [The Monarch Movement: How kids used their voices for the environment](#) (Isaiah Varella, 2023)