



Curriculum Units by Fellows of the National Initiative

2020 Volume V: Caretakers versus Exploiters: Impacting Biodiversity in the Age of Humans

One Clover and A Bee: The Impacts of Bee Sustainability on Biodiversity in Allegheny County

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by Jesse Baker

Why should we preserve biodiversity? Students will discuss the importance of maintaining ecosystems and will learn about the various arguments that people make in favor of preserving the Earth's biodiversity. Background information on bee physiology and behaviors as well as the various ways the reduction or complete extinction of bees will impact other species will be researched, presented and discussed. We will investigate factors of their decline that include climate change, the use of pesticides, and mono-cropping¹ which utilizes the practice of relocating nonnative bee species that leads to colony collapse disorder through the infestation of Varroa mites. More importantly, conservation steps will be considered concerning Pennsylvania bees. Unless the students can bring about awareness to spark a fit of revery, we are headed towards a future where you'll yearn to taste real strawberries or have grocery aisles that are no longer stuffed with foods, colors, and shapes that we are currently taking for granted.²

¹ FAO of United, Nations. "Declining Bee Populations Pose Threat to Global Food Security and Nutrition." May 20, 2019. Accessed July 13, 2020

² Warren, Mobi. *The Bee Maker*. Pennsauken: BookBaby, 2019.

(Developed for Geometry PSP, grade 10, and Geometry CAS, grade 9; recommended for Geometry, grades 9-10)

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