

INSECTS UP CLOSE

Students will read about Levon Biss who photographs insects in hopes of motivating people to protect them. Then students will create their own project that might inspire others to protect insects.



Common Core State Standards

CCSS.ELA-LITERACY.CCRA.RI.1

CCSS.ELA-LITERACY.CCRA.RI.3

CCSS.ELA-LITERACY.CCRA.SL.1

CCSS.ELA-LITERACY.CCRA.SL.2

Materials

Class set of “Insects Up Close”; access to Kahoot! quiz; “Insect Saving Sneakers” worksheet (optional)

INTRODUCTION

Ask students how they'd describe insects. Did anyone use the word *beautiful*? Preview the images on page 7 of the spread, and explain that Levon Biss's goal is to reveal insects' beauty. If time permits, allow students to look at some of Biss's work at microsculpture.net. Then use the Kahoot! quiz at [ti.me/insectKahoot](https://www.kahoot.it/m/LevonBiss/insectKahoot) to assess students' prior knowledge about insects. Ask if they have any fun facts about insects. If so, have them come up with their own multiple-choice question and challenge the class.



DISCUSSION QUESTIONS

- What inspired Biss's macrophotography projects?
- What is Biss's process?
- How does Biss hope people will respond to his work?
- How have your opinions about insects changed, if at all, after reading this article?

CLOSING

Have students think about types of creators other than photographers. They can read about some at ti.me/creators. Create a class list of creators. Then have students consider how people in these careers, too, might produce something that could inspire people to see the beauty in insects. Give the example of [Cheressa Thornhill-Goldson](#), a sneaker designer. She might design an insect-inspired sneaker. Invite students to design their own sneaker with the worksheet “Insect-Saving Sneakers,” at ti.me/insectsnickers. Or you can allow students to produce their own creation, such as a podcast, a short video, or a song. Have students share their work with the class.

INSECTS UP CLOSE

With sharply detailed images, photographer Levon Biss motivates people to protect insects.

Where does inspiration come from? Levon Biss found it while looking at beetles from his garden. He'd bought a microscope for his son. For fun, they placed a beetle under the lens. "It was just stunningly beautiful," Biss told TIME for Kids. He wondered if he could capture that beauty in a photograph.

Biss had been making a career taking photographs for advertisements. But insects gave him a new direction. Around the world, insect populations are in decline because of pesticides, habitat loss, and climate change. Biss thought that if people could see what he saw through his son's microscope, they would care more about protecting insects. "I've got a photographic technique and a skill that needs to be utilized," he says. "I should use them for a better purpose."

EYE FOR DETAIL

Biss turned to macrophotography: taking close-up pictures of small things, like flowers or bugs. His work has attracted attention not just for its unusual beauty. It also raises awareness about the need for conservation.

In 2016, Biss showed his first insect project, *Microsculpture*. The term refers to the features of an insect's exoskeleton, or outer shell, which develops over time as the bug adapts to its environment.

Biss's pictures capture the insects in all their wonderful, microscopic detail. Then he blows the images up

until the insects are larger than life, some of them eight feet tall.

Each image takes weeks to make. Biss uses a digital camera with a microscope lens. The camera is mounted on a computerized rail. This allows Biss to take a shot, then move the camera by seven microns—a distance equal to about 1/10 the thickness of a human hair—for the next shot. In the end, Biss might take 10,000 shots of a bug. A computer puts this jigsaw puzzle together into a single image.

SHAKING IT UP

Biss's latest exhibition is *Extinct and Endangered*, at the American

Museum of Natural History, in New York City. With the help of the museum's scientists and curators, he selected bugs that were extinct or endangered. "It's a humbling experience, when you're holding an insect that's extinct," Biss says. "It's sad to know it will never be on this planet again."

Biss hopes his photographs will get people thinking the same way. "The way I work is through pictures," he says. "I communicate visually. Hopefully, these pictures can shake things up and get people to pay attention."

—By Brian S. McGrath

your  job
— FIND YOUR FUTURE —

Did you like learning about what it takes to be a macrophotographer? Visit ti.me/creators to discover other exciting careers held by artists and innovators, including ...

NFT ARTIST
PODCAST PRODUCER
SNEAKER DESIGNER

FACE TIME A giant Patagonian bumblebee stares out from a photograph by Levon Biss.



AT WORK Biss sets up a camera in his studio in England. He created this setup to photograph insects in their smallest details.

CLOSE ENCOUNTER Gallery visitors view one of Biss's giant photographs. Some of the pictures are eight feet tall.



INSECT-SAVING SNEAKERS

After reading “Insects Up Close” (October 21, 2022), watch a video about sneaker designer Cheresse Thornhill-Goldson at [ti.me/sneakers](https://www.timeforkids.com/2022/10/21/10222222/insects-up-close/). Then make an insect-inspired design on the sneakers to motivate people to protect insects.



TETIANA LAZUNOVA—GETTY IMAGES (2)

