

An Educator's Guide to FACE BUG

FACE BUG combines science with art in words, photos, and line drawings. These teacher materials look at not only the poetry included in this book, but also the science of bugs, the impact of bugs in history, and how bugs have been featured in various art forms.

These activities are structured as invitations to explore, capitalizing on students' curiosity and natural interest in bugs. Have fun exploring the Face Bug museum!

COMMON CORE ANCHOR STANDARDS FOR ENGLISH LANGUAGE ARTS (READING, WRITING, SPEAKING/LISTENING, and LANGUAGE)

Many of the activities below meet various standards of the Common Core. Students are asked to:

- Find key ideas in the poems. (CCRA.R.4)
- Understand, visualize, and write from a bug's point of view. (CCRA.R.6, CCRA.SL.3)
- Evaluate and use other media to understand a text. (CCRA.R.7)
- Write narratives. (CCRA.W.3)
- Conduct short or sustained research projects. (CCRA.W.7)
- Gather, evaluate, and use information from multiple sources. (CCRA.W.8, CCRA.SL.2)
- Write for several purposes. (CCRA.W.10)
- Present information orally, using media to aid comprehension. (CCRA.SL.4, CCRA.SL.5)
- Effectively adapt speech to a variety of contexts. (CCRA.SL.6)
- Clarify meaning of words. (CCRA.L.4, CCRA.L.5)

The suggested books and websites represent a range of reading levels. (CCRA.R.10)



Discussion Questions and Research

Grand Opening: The Face Bug Museum

- Why does poet J. Patrick Lewis say that we can't know a bug until we look at it in the face? What happens when we look people in the face? What do we learn?
- What types of museums have you visited in the past? What do you expect to see in the *Face Bug* museum when you read this opening poem?

Hickory Horned Devil

- Lewis calls the hickory horned devil "Mother Nature's Frankenstein." Do you think this is an accurate description? Why or why not?
- Use the last two lines of this poem to look at proportion. If you were the one-inch bug, how tall or long would the hickory horned devil seem?

Eastern Carpenter Bee

- What other wood-boring insects do people have to watch for? Think about termites, carpenter ants, powderpost beetles, and even hornail wasps.
- If hole-boring were an event during the Insect Olympics, who would win as the fastest? The biggest?

Nursery Web Spider

- As a class, write a lullaby that a nursery web spider might sing to her babies safe inside her egg sac.

Pearl Crescent Butterfly

- Pearl crescent butterflies love to eat wildflower nectar. Use a general informational book to look at what insects eat. Use a graphic organizer to classify what you find out about insect food. Some like nectar, some like blood, some like dead tissue, and some like poop! Which insects would be in each food category?
- After reading "And Now a Word from Our Bugs" in the back of the book, discuss what eats the pearl crescent butterfly. Are you surprised to learn that birds are on this insect's "Most Scary List"? Did you know that birds eat many of these insects?

Dogday Harvestfly Cicada

- Search on YouTube for a recording of cicada sounds. When do they "sing"? Have you ever heard a cicada?

American Horse Fly

- J. Patrick Lewis compares the American horse fly to a "Clydesdale." Find out more about Clydesdales. Why do you think he makes this comparison?

Goldenrod Stowaway Moth

- The goldenrod stowaway moth has the right color of hair to hide from predators. What are some other kinds of camouflage that insects use?

Green Stinkbug

- In this poem, Lewis contrasts the physical beauty of the bug with the offensiveness of its scent. What other animals use scent? What are some other defense mechanisms that insects have?

Eastern Dobsonfly

- Dobsonflies only have seven days to find each other and mate. So this is a love poem from Mrs. to Mr., telling him all the things she likes about him! Choose another insect, write a list of its characteristics, add words that rhyme with each trait, and then write a class love poem to that wonderful bug.
- *Megaloptera* is a word that means "large-winged insect," and it describes dobsonflies well. These bugs can be five inches long! Think about the first part of the word: *mega*. What other words can you think of that use that prefix?

Daddy Longlegs

- Research daddy longlegs on the internet and make note of the proportions between their torso and their legs. What would humans look like if we had similar proportions in our torso, arms, and legs? Draw a simple stick person to demonstrate!

Green Darner Dragonfly

- In this poem, J. Patrick Lewis compares the dragonfly to a helicopter. Dragonflies have two different sets of wings. As a class, find a video clip of dragonflies and watch the way each wing can move independently of the other. Talk about the name of this insect. Why do you think this insect is called a dragonfly? Why is it compared to a damming needle?

Bush Katydid

- Insects have scientific names that identify their genera and species, but they also have common names that are used in conversation. J. Patrick Lewis calls this bug both a bush cricket and a katydid. Try saying the word "katydid" several times to imitate the sound of the insect.
- This poem is a list of objects and their relationship to a katydid from the object's perspective. Write a list poem about yourself in relationship with things around your house or people in your life. What would you be if a ball described you? A desk? A bowl of cereal? A neighbor?

Praying Mantis

- This insect gets its name from the way it folds its front legs while it waits for prey. It looks like it is praying, but really it is a ferocious predator. The front legs are raptorial graspers. They have spikes on them to help the mantis hold its prey while it is eating. What other creatures are called raptors? What does this term mean?
- The female often eats her mate, turning him into (as J. Patrick Lewis says) a bug fillet! What other creatures might eat their mate or their babies?
- People sometimes keep a praying mantis as a pet. Talk about what you would need to take care of a carnivorous insect. Make a list of insects that would or would not make good pets and why.

Saddleback Caterpillar

- After conducting further research about caterpillars on the internet, create a matching game with pictures of various stinging caterpillars and the moths they become after metamorphosis.

Curriculum Connections

Bugs in Music and Drama

- Use bubble wrap to make eye masks, simulating the compound eyes of some insects. Use the masks to act out a story about an insect life cycle, an insect hunting for food or a mate, or a poem about a bug's-eye view of the world.
- Use YouTube to listen to Rimsky-Korsakov's "Flight of the Bumblebee" performed by an orchestra, by a trombone, or by an orchestra with a photograph as a visual. Which version do students like best? Why? Act out the flight of bumblebees as they search for nectar. The class can also pretend to play the various orchestral instruments.

Bugs in History

- Bugs have had an important role in history! Not only have Egyptologists found preserved bugs in mummies, but they have realized that some bugs were sacred in ancient Egypt. Use the following website to read about these insects, the hieroglyphics that represented them, and why they were important in Egyptian culture: <http://www.kendalluk.com/sacredinsect.htm>.

Bugs in Art

- Imitate photographer Frederic Siskind and take photos of bugs in their natural environment. Organize the photos into a presentation, a diary, a story, or a poem about bugs.
- Discuss illustrator Kelly Murphy's illustrations of the bugs in this book. How do they compare to Siskind's photos? Do you think the illustrations help you to better understand each bug and its environment?

Bugs in Poetry

- Poetry is meant to be read aloud so that rhymes and rhythms can be enjoyed. Use different strategies for reading the poems in *Face Bug*: unison or echo reading, solo lines, choral reading, repeated words or refrains. Also use body movement, sound effects, sign language, background music, or percussion instruments to make the poem more interactive. Some poems can be rewritten for two voices. Enjoy the poem!
- Put Lewis's bug poems to music. Use familiar tunes to sing the poems (5 beats: "Row, Row, Row Your Boat," 7 beats: "Twinkle, Twinkle, Little Star," 8 beats: "BINGO," 9 beats: "When Johnny Comes Marching Home Again," 10 beats: "Ninety-Nine Bottles of Pop," 11 beats: "She'll Be Coming 'Round the Mountain").

Bugs in Literature

- Read novels in which a main character is a bug: *Charlotte's Web* by E. B. White, *The Cricket in Times Square* by George Selden, *James and the Giant Peach* by Roald Dahl, *Harry the Poisonous Centipede* by Lynne Reid Banks.

Bugs in Ecology

- Some insects are becoming endangered. While some people think that an insect-less world would be a better place, the reality is that the earth needs insects to keep itself in balance. What are some insects that are becoming endangered? What would happen to the balance of nature if they disappeared? Check out the information on the U.S. Fish and Wildlife Service website (<http://www.fws.gov/midwest/endangered/insects/index.html>).

Bugs in Science

- Create an actual bug museum! Remember to make the container big enough, and include shelter, food, liquid, and air for the bug. Keep the bug safe and release it after a few days into its natural habitat. Record observations in individual journals or class journals, and encourage students to organize their findings in charts or other graphic organizers.
- Bugs eat each other! In the back of *Face Bug*, you'll find information about what each bug eats and who might want to eat that bug. Read *What Do You Do When Something Wants to Eat You?* by Steve Jenkins and *Gobble It Up! A Fun Song About Eating!* by Jim Arnosky. Then learn the song and add some extra verses about insects and what they eat.

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FACE BUG
Poems by J. Patrick Lewis
Photographs by Frederic B. Siskind
Illustrations by Kelly Murphy

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Highlights

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FABUP

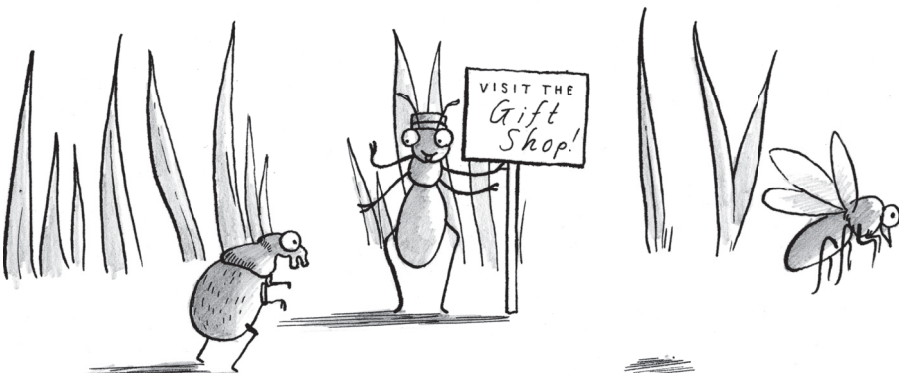
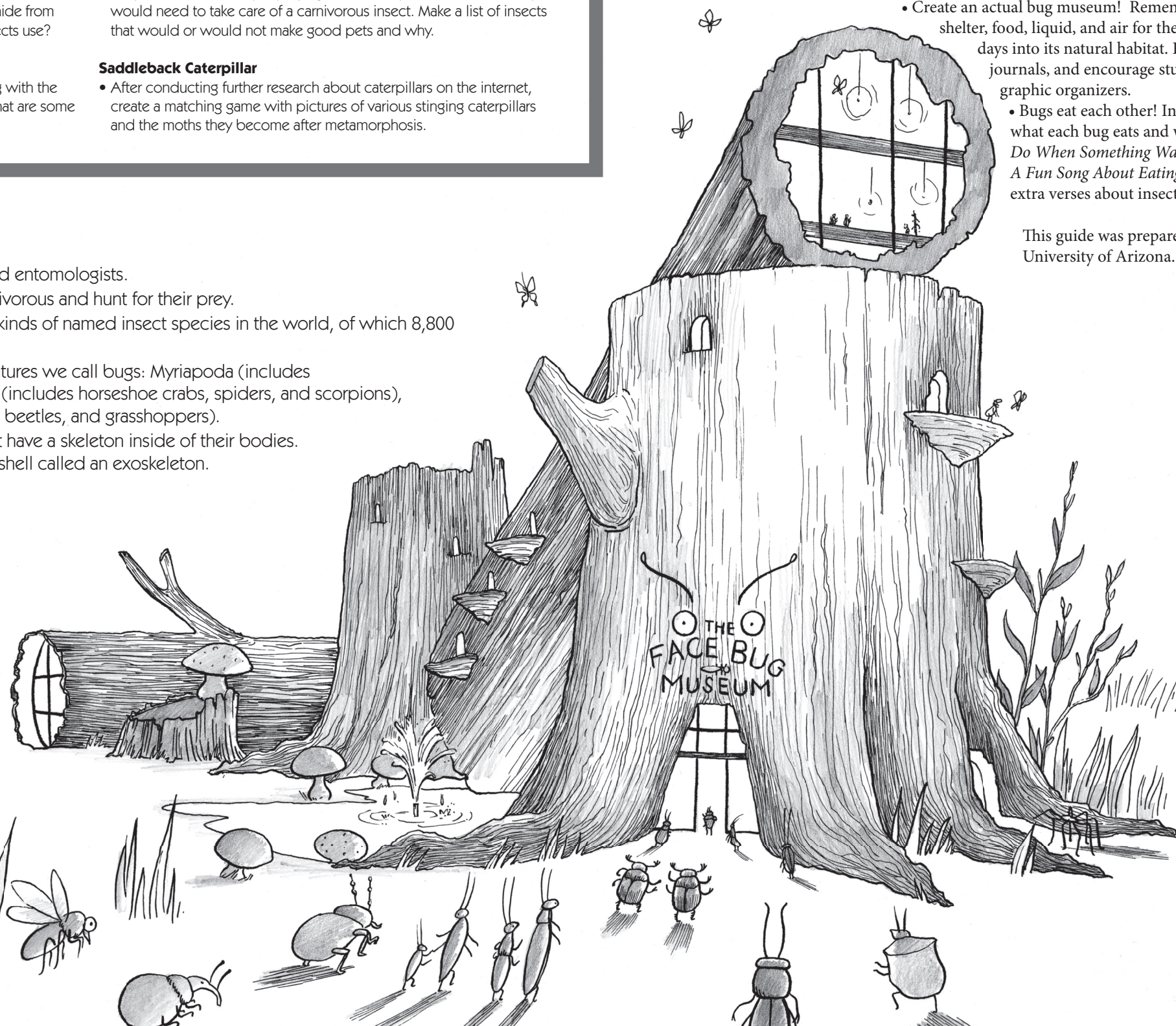
BUG FACTS



- Scientists who study bugs are called entomologists.
- About one-third of insects are carnivorous and hunt for their prey.
- There are over 1.5 million different kinds of named insect species in the world, of which 8,800 are ants!
- There are three main classes of creatures we call bugs: Myriapoda (includes centipede-like bugs), Arachnida (includes horseshoe crabs, spiders, and scorpions), and Insecta (includes bees, ants, beetles, and grasshoppers).
- Insects are arthropods. They do not have a skeleton inside of their bodies. Instead, they have a tough outer shell called an exoskeleton.

Websites for Further Research

Smithsonian:
http://www.si.edu/Encyclopedia_SI/nmnh/buginfo/start.htm
National Geographic Kids:
<http://kids.nationalgeographic.com/kids/animals/creaturefeature/>
Bug facts: <http://www.bugfacts.net/index.php>
Bug videos and bug sounds:
<http://www.harrysbigadventure.com/bugopedia/>
All about enjoying poetry!:
<http://poetryforchildren.blogspot.com/>
Poetry Friday:
<http://poetryfridayanthology.blogspot.com/>
Poetry Foundation's Children's Poet Laureate:
<http://www.poetryfoundation.org/children/poet-laureate-book-picks>



FACILE BUG

POEMS

J. PATRICK LEWIS



PHOTOGRAPHS BY **FREDERIC B. SISKIND**
ILLUSTRATIONS BY **KELLY MURPHY**

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