

# Animals 2

## MESS® Recommended Materials



### Basic equipment

- camera
- printer for photos
- specimen viewers
- petri dishes
- handheld magnifying lenses
- tabletop magnifier
- colander
- paper and writing tools

### Additional equipment

- large rubber insect and spider models, including dragonfly and multiple butterflies that vary in patterning and color
- tub of small insect models
- insect and spider plastomounts
- television
- tape or cd player
- shovel or trowel
- small stones
- ceramic tile
- butterfly house

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- watering can
- recordings of insect sounds and corresponding photos
- tape or cd player
- blocks
- insect glasses
- colorful patterned paper or fabric

#### Posters, illustrations, puzzles, or card sets

- parts of an insect
- parts of a spider
- life cycle of a butterfly

#### Supplies

- live insects
- dead insects
- ant hill
- food scraps
- paper plate
- butterfly larvae (caterpillars)
- butterfly host plants
- paper towels

#### Books

Allen, Judy. *Are You an Ant (also Bee, Butterfly, Grasshopper, Spider)* New York: Kingfisher, 2000-2002. The books in this series (Backyard Books) are packed with basic science information and detailed watercolor illustrations. Each title covers a particular animal's life cycle, feeding habits, natural enemies, and unique physical and behavioral characteristics. The text engages readers by encouraging comparisons between themselves and the animals, though sometimes human thoughts and emotions are attributed to animals.

Barner, Bob. *Bug Safari*. New York: Holiday House, 2006. A little boy, with magnifying glass in hand, has an adventurous trip following ants on their way to a backyard picnic. Information is accurate; bold, enlarged pictures add to the mystery. Additional information about the animals encountered is included.

Berger, Melvin. *Animals in Hiding*. Northborough, MA: Sundance/Newbridge, 2007. While not a book about insects specifically, photographs show camouflaged animals in a variety of habitats. The photographs are accompanied by large text that asks leading questions and encourages observation and conversation.

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Berger, Melvin. *The World of Ants*. New York: Newbridge, 1993. Wonderful photographs and simple, large-type text provide basic facts about ants, especially their homes and communication.

Bernard, Robin. *Insects*. Washington, DC: National Geographic Society, 1999. Fascinating close-up photographs show examples of body parts shared by many insects. The text details how insects use different body parts like legs and mouthparts.

Bishop, Nic. *Spiders*. New York: Scholastic, 2007. Do you need pictures of spider eyes? Close-up photographs include that and much more for a variety of spiders. The text is long for young children, but the fairly large print can be read selectively. The curious young child can explore the photos alone, or with someone who can add information from the text.

Bono, Mary. *UGH! A Bug*. NY: Walker, 2002. This is a lighthearted, rhyming tour through the “bugs” that frequently irritate people. The book ends with very positive messages: bugs are hard to avoid completely, most are not nasty, they are here to stay, generally people are trespassing in the bug’s space (not vice versa), and bugs are happier when not in a jar. Teachers will need to redefine the term “bug” since worms are included.

Brenner, Barbara. *Thinking about Ants*. New York: MONDO Publishing, 1997. Beautifully detailed illustrations and simple text ask the question: “How would it be, to be an ant?” Readers are asked to consider how ants look, what they eat, what they should fear, where and how they live, and more.

Carle, Eric. *The Very Busy Spider/La araña muy ocupada*. New York: Philomel Books, 1984. A busy spider works all day to spin a web, despite numerous distractions from other farmyard residents. The tactile web-building is fascinating, and the book provides valuable observation and conversation practice. Scientific information is minimal.

Carle, Eric. *The Very Clumsy Click Beetle*. New York: Philomel Books, 1999. The intriguing click beetle phenomenon of turning itself over provides an example of the value of practice and more practice. Discussion about beetle science is easily initiated.

Carle, Eric. *The Very Quiet Cricket/El grillo silencioso*. New York: Philomel Books, 1990. A young male cricket finally learns how to chirp when he meets a beautiful female cricket. This is a fun demonstration of insect communication. An author’s note prior to the title page includes specific cricket information.

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Ehlert, Lois. *Waiting for Wings*. San Diego: Harcourt, 2001. Bold colors in cut-paper illustrations and simple rhyming text tell the story of the butterfly life cycle. Some basic butterfly information and flower identification conclude the book. The habits of different caterpillars/butterflies and their host/nectar plants are covered in the end note.

French, Vivian. *Caterpillar Caterpillar*. Cambridge, MA: Candlewick Press, 1993. A wise grandfather shares his knowledge of caterpillars with his granddaughter. Soft, lightly colored pen-and-ink illustrations add to the wonder of metamorphosis, while additional facts in the margins provide more information for those who are interested.

Gibbons, Gail. *Monarch Butterfly*. New York: Holiday House, 1989. Thoroughly labeled illustrations (including pronunciations) accompany the text that describes the monarch butterfly's life cycle, body parts, and behavior, including migration. The drama of the various changes from caterpillar to chrysalis to butterfly are evident, but the amount of detail may require selective reading for young children. Instructions on how to raise a monarch and a page of fun facts are included.

Graham, Margaret Bloy. *Be Nice to Spiders*. New York: HarperCollins, 1967. A zookeeper eventually learns that spiders can be beneficial. Donated to the zoo by a little boy who is no longer able to keep her as a pet, Helen makes the animals comfortable by enthusiastically eating flies around them. The fictional story encourages discussion about the value of spiders.

Heller, Ruth. *How to Hide a Butterfly and Other Insects/Cómo se esconde una mariposa y otros insectos*. New York: Grosset & Dunlap, 1992. A limited amount of rhyming text introduces camouflage and explains why it is useful. Clever illustrations show how insects camouflage themselves within their environments and challenge readers to find the hidden insects.

Heiligman, Deborah. *From Caterpillar to Butterfly (Let's-Read-and-Find-Out Science series)*. New York: HarperCollins, 1996. Young children in a classroom setting excitedly wait and watch as a caterpillar goes through the stages of metamorphosis to emerge, finally, as a Painted Lady butterfly. Close-ups that show the stages of transformation and bits of information placed around the sketches are helpful touches. A small collection of butterflies found in many parts of the U.S. is included at the end of the book. 1997NSTA Outstanding Trade Science Book K-12

Himmelman, John. *A Ladybug's Life*. New York: Children's Press, 1998. The life cycle of a ladybug is explained with detailed color illustrations and sparse text. Background on ladybugs in general and the specific kind of ladybug illustrated is provided in an introductory note.

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Himmelman, John. *A Luna Moth's Life*. New York: Children's Press, 1998. The life cycle of a luna moth is the main theme of this book, but other animals and conditions in the moth's world get attention too. Striking, detailed color illustrations add to the sparse text.

Lehn, Barbara. *What Is a Scientist?* Brookfield, CT: Millbrook Press, 1998. Simple text and color photographs describe how scientists work: questioning, observing, reporting, etc. Children demonstrate each of the tasks.

Marzollo, Jean. *I'm a Caterpillar*. New York: Scholastic, 1997. Simply told with minimal text, this is the story—from the caterpillar's point of view—of metamorphosis. Illustrations generally are simple, colorful paper cutouts, but interesting details (like a ladybug or a spider) draw one's attention, too. This beginning reader may stimulate both discussion and observation.

McDonald, Megan. *Insects Are My Life*. New York: Orchard Books, 1995. A little girl who is a devoted insect fan has a hard time dealing with her classmates. Good insect information (including the fact that worms are not insects) is included. The softly colored illustrations are detailed, down to the ants crawling on the kitchen floor and expressions on Amanda's face.

Monks, Lydia. *Aaaarrgghh! Spider!* Boston: Houghton Mifflin, 2004. Because it is really lonely being a spider, a spider tries to compare itself favorably to a family's other pets. Although the title seems negative, the story encourages a positive attitude toward spiders.

Murawski, Darlyne A. *Bug Faces*. Washington, DC: National Geographic Society, 2000. Colorful, detailed, and fascinating close-up photographs of insects, and a couple of their arachnid relatives, invite careful study. The whole book is like looking through a giant magnifier! Descriptive text (that can be read selectively for young children) and a funny headline explain the particulars of each photograph.

Rockwell, Anne. *Becoming Butterflies*. New York: Walker, 2002. There is nothing like the experience Miss Dana's students share when she brings three caterpillars and a milkweed plant into their classroom. Softly colored illustrations depict the children drawing each life stage and letting the butterflies go when they are ready for flight. Details about additional caterpillars/butterflies are included. Society of School Librarians International Book Awards Honor Book 2002 Science-Grades K-6

Rockwell, Anne. *Bugs Are Insects*. New York: HarperCollins, 2001. Illustrated with realistic and creative paper cutouts, this informative book begins with a discussion of the common insect characteristics, then describes some ways in which insects can differ from one another. Discussion of true bugs and comparisons to spiders and other non-insect external skeletons are helpful. Text is appropriate for young children. A page of suggestions for finding out more about insects is included. 2002 NSTA Outstanding Trade Science Book K-12

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Ryder, Joanne. *My Father's Hands*. New York: Morrow Junior Books, 1994. While not exclusively an insect or spider book, the beautiful pastel illustrations about a father and child working together in the garden encourage care, wonder, and observation of the living things they find. The text is full of descriptive words.

Ryder, Joanne. *Where Butterflies Grow*. New York: Lodestar Books, 1989. "Imagine you are someone small hidden in a tiny egg . . ." Thus begins a fascinating journey into a garden for a close look at a black swallowtail's world. Details abound in the full-page illustrations, and magnified boxes and hidden "extras" invite close observation. A resource page on growing butterflies in your own garden is included.

Sayre, April Pulley. *The Bumblebee Queen*. Watertown, MA: Charlesbridge, 2005. Appropriately limited text and finely detailed illustrations tell the story of a queen bee as she creates and tends her colony throughout the year. Informational asides in the margins add to the learning opportunities. Recommended books and web sites are listed.

Sill, Cathryn. *About Arachnids*. Atlanta: Peachtree Publishers, 2003. Fifteen detailed, close-up watercolor drawings with minimal text describe the basic physical features, life cycle, and behavior of arachnids (spiders, scorpions, ticks, mites, and harvestmen) and how they differ from insects. Illustrations invite close study. An afterword provides more details about each of the featured animals. 2004 NSTA Outstanding Science Trade Book K-12

Sill, Cathryn. *About Insects*. Atlanta: Peachtree Publishers, 2000. Eighteen beautiful, large, detailed illustrations and spare text provide basic information about insect anatomy, movement, and behavior. An afterword, with miniatures of the illustrations, provides additional information about the insects.

Trumbauer, Lisa. *Spinning a Web*. New York: Newbridge Educational Publishing, 1996. Wonderful close-up, color photographs and very simple text provide basic facts about the diverse world of spiders (what they look like, one way they differ from insects, where they live, and how they move) before focusing on their webs. Additional fun facts and things to think about are included.

