## INCREDIBLE INSECTS

There are more than a million types of insects around the world, with more being discovered all the time. Butterflies, bees, and ladybugs are only a few of the more commonly known insects found in outdoor public areas and amid flower blooms in gardens. Other places that make popular insect-harbors are trees, fallen logs, rocky areas, leaf piles—and even dark closets inside homes!

Although insects come in many different sizes and shapes, all insects have these body parts in common: a head, thorax, abdomen, antennae, and six legs. Most insects also have eyes and wings. One of the tiniest insects known to man is the fairy fly, a type of wasp that could fit easily through the eye of a needle. One of the largest insects is the grasshopper-like giant weta, which can grow to four inches long and weigh as much as a sparrow.

## Suggested Activities

## STUDYING INSECTS

Tell students that the study of insects is called entomology. Then introduce students to the characteristics of insects, using "Let's Talk About Insects," an online tutorial sponsored by the University of Illinois Extension at http://urbanext.illinois. edu/insects. (Or, share the information about insects below.) Afterward, distribute photocopies of the diagram (page 4) and have students label the body parts of the grasshopper.

Head: The head usually contains the eyes, mouthparts,
 and antennae.

Eyes: Most insects have compound eyes, which consist of many lenses. Some have simple eyes that contain a single lens. Insects might have two or more eyes, and some even have both compound and simple eyes!

Mouthparts: The mouthparts vary according to what insects feed on, allowing them to chew, bite, pinch, pierce, or suck their food.

Antennae: These are used to sense sounds, vibrations, smells, and other environmental factors.

Thorax: This is the middle section of an insect's body. The wings and legs are attached to the thorax.

Legs: All insects have three pairs of legs (six legs).
Wings: Most insects have two pairs of wings (four wings), but some have just one pair (two wings) or no wings at all—such as ants and fleas.
Abdomen: This is usually the largest part of an insect's body. It contains vital organs used for digestion, respiration, and reproduction.

## STAND-UP GRASSHOPPER

Continue your exploration of insects with this stand-up grasshopper. First, ask students to color and cut out tagboard photocopies of the grasshopper patterns on page 5. Have them glue a leg to each side of the abdomen, then fold the body along the dashed line. Students can use sticky flags to label the parts of the grasshopper. To display, stand the grasshopper on a flat surface, such as a tabletop or windowsill. Or, attach them to a display backed with green-fringed bulletin-board paper to represent grass.

## INTERESTING INSECTS!



Expand students' knowledge about insects by having them research and write about insects that have unique attributes or skills. For example, students might choose to learn about an insect that migrates or has the ability to pollinate. Encourage students to use a variety of resources to do their research—such as the Internet, nonfiction books, videos, documentaries, and interviews with specialists at the county extension agency. Some students might find useful information for their research by visiting the National Geographic Wild website at http://animals.nationalgeographic.com/animals/bugs. Distribute photocopies of page 6 for students to fill out as they discover facts and other interesting information about their insect. If they need more space to write, they can use the back of the page. (Most children will need a few days to complete the assignment.)

After students complete their pages, invite them to share their findings with the class. If desired, collect the pages and bind them together to create a class book about insects.


## CREEPY CRAWLY CROSSWORD

Give students practice with insect-related vocabulary and developing problem-solving skills with the crossword puzzle on page 7 . Distribute photocopies to students, then demonstrate how to use the clues to find the answers and fill in the puzzle. Older students can work in pairs or small groups while you might work with younger students to help them complete the puzzle.

## INSECT WORD FIND



Use the word find on page 8 to reinforce student's insect-related vocabulary. After students find and circle all of the insect names in the puzzle, have them complete the drawing activity at the bottom of the page.

## LEARNING WITH LADYBUGS

These hinged ladybugs make great center activities that can be used to reinforce a variety of skills. To assemble, cut out construction-paper copies of the ladybug and wing patterns on page 9. (Make as many copies as you need for the skill you plan to teach.) Program the two wings with the skill you want to teach and write the answer on the ladybug. Use a brass fastener to attach the pieces together, as shown. To
 use, students read the task, give their response, then separate the two wings to check their answer.


If desired, invite students to make their own hinged ladybugs. They might label the wings with a seasonal greeting (related to a ladybug or spring event) and write a special message on the ladybug. Or, they might write an insect-related riddle and its answer on the pieces.
$\qquad$ DATE

Label these insect parts:

Antennae
Abdomen
Head
Legs
Thorax
Wings

$\qquad$

## Rofercetino lnocct

My insect is $\qquad$
Here's a picture of my insect:


## Facts about my insect:

Size: $\qquad$ Color(s): $\qquad$
Number of legs: $\qquad$ wings: $\qquad$ antennae: $\qquad$
My insect eats $\qquad$
It lives $\qquad$
It protects itself by $\qquad$
My insect lives about this long: $\qquad$
Another interesting fact about my insect: $\qquad$
$\qquad$

## GTeepy cramluy Grossmoped

Write the name of each insect in the puzzle.
Use the words from the box.


## Insects

bee
beetle butterfly caterpillar fly
grasshopper ladybug
wasp

DOWN
1.

2.
6.

3.

4.


## Hnsect wiopd [inc]

Find these words in the puzzle below:
ANT APHID bEETLE CRICKET FLEA GNAT GRASSHOPPER KATYDID LADYBUG MOSQUITO MOTH WASP

G N M K L O P L K M K N H G A S W E R T X
A L A D Y B U G F V K E S E D F T G H Y U
Z R I E I D S E D R A W U I C F T G B N B
Q E S D C R I C K E T Y F R C U S T O G N
A S E R A V B T H Y Y E W S C V F R G R J
A G N A T C O A D V D S F R B D E R T A Y
X L C O B F E N T I I T S W E C V B N S I
Q U X C E B G T D E D E E A L A S D M S U
A T D F E H X E R T Y M O S Q U I T O H E Z R X C T G T F R E D F G P S D V B T O U A Z F F L E A K F A R H E S T I M E H P T W O S X E J P L O O N S C D R E T G H P N M T D N A P H I D D E R T F G R D S W E R A S D E R Q X C V J A Z U A T Y N H J R L

Choose two insects from the puzzle.
Draw them in the box.
(10)

## Gpasshopper Diagram, page 4



## Insect Word Find, page 8



## Creepy Crawly Crossword, page 7



