

**Expert Pack: Icky Insects**

Submitted by: Corbett-Mathews, Washoe County, Nevada

Grade: K-1

Date: May 2015

<b>Topic/Subject</b> Interesting Insects
<p><b>Texts/Resources</b></p> <p>Book(s)</p> <ol style="list-style-type: none"><li>1. Ant Farmers</li><li>2. Praying Mantis</li><li>3. Bugs!</li><li>4. Ant, Ant, Ant!: An Insect Chant</li></ol> <p>Article</p> <ol style="list-style-type: none"><li>5. Where Do Butterflies Get Their Colors?</li></ol> <p>Infographic(s)</p> <ol style="list-style-type: none"><li>6. 42 Butterflies of North America [Infographic]</li><li>7. Eee Gads...A New Bug [Infographic]</li></ol> <p>Other Media</p> <ol style="list-style-type: none"><li>8. What Is An Insect? [Animated video]</li><li>9. Let's Talk About Insects [Interactive powerpoint]</li></ol> <p>Each expert pack contains a variety of selections grouped to create as coherent and gradual a learning process for students as possible, generally beginning with lower levels as measured by quantitative and qualitative measures, and moving to more complex levels in the latter selections. This graduated approach helps support students' ability to read the next selection and to become 'experts' on the topic they are reading about.</p> <p><i>Refer to annotated bibliography on the following pages for the suggested sequence of readings.</i></p>
<p><b>Rationale and suggested sequence for reading:</b></p> <p>In the first book, <b><u>"Ant, Ant, Ant!: An Insect Chant"</u></b>, students are introduced through a read aloud to the large variety of interesting insects and the characteristics that make them interesting. Students then watch the animated <b><u>video "What is an insect?"</u></b> which explains the body parts that make an insect an insect. The next resources are simple books <b><u>Ant Farmers</u></b> and <b><u>Praying Mantis</u></b> that introduce students to the life of a farmer ant and a praying mantis. Students then interact with an online powerpoint, <b><u>"Let's Talk About Insects"</u></b> to gain even more knowledge about different kinds of bugs, the life cycle, habitats, and defenses of bugs. With that knowledge, the next <b><u>resource "Eee Gads...A New Bug"</u></b> allows students to build their own bug based on speed or toughness. The next two resources, <b><u>"Where Do Butterflies Get Their Colors?"</u></b> and the infographic <b><u>"42 Butterflies of North America,"</u></b> take students into the world of butterflies. The final resource, a highly engaging text read aloud, <b><u>Bugs!</u></b>, introduces students to the many creative and whimsical uses of insects and opens the students up to the many more bugs in our world.</p>

### The Common Core Shifts for ELA/Literacy:

1. Regular practice with complex text and its academic language
2. Reading, writing and speaking grounded in evidence from text, both literary and informational
3. *Building knowledge through content-rich nonfiction*

Though use of these expert packs will enhance student proficiency with most or all of the Common Core Standards, they focus primarily on Shift 3, and the highlighted portions of the standards below.

### College and Career Readiness Anchor Standards for Reading Literary and/or Informational Texts (*the darkened sections of the standards are the focus of the Expert Pack learning for students*):

1. ***Read closely to determine what the text says explicitly and to make logical inferences from it;*** cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. ***Determine central ideas or themes of a text and analyze their development;*** summarize the key supporting details and ideas.
10. **Read and comprehend complex literary and informational texts independently and proficiently**

### Annotated Bibliography and suggested sequence for reading

#### N/A **Ant, Ant, Ant!: An Insect Chant!**

Author: April Pulley Sayre

Genre: Literary Nonfiction: narrative chant

Length: 32 pages

Synopsis: Bugs come alive on the pages of this book with exaggerations of features and characteristics of all different kinds of insects. The back of the book contains a short paragraph about each bug featured throughout. The book is written as a poem with descriptive and funny language describing the insects.

Citation: Sayre, April Pulley (2005). *Ant, Ant, Ant!: An Insect Chant*. New York: Cooper Square Publishing LLC.

Cost/Access: \$13.06

Recommended Student Activities: Quiz Maker

#### N/A **What is an insect?**

Author: HooplaKidz TV

Genre: Informational cartoon

Length: 2:00 minutes

Synopsis: Short cartoon video that describes and checks what makes an insects based on their distinct body parts.

Citation: HooplaKidsTV. (2014, March 7). *What is an insect?* [Video file]. Retrieved from

<https://www.youtube.com/watch?v=DUPXkWqC1aA>

Cost/Access: \$0.00 YouTube.com

Recommended Student Activities: Picture of Knowledge

#### N/A **Ant Farmers**

Author: Wendy Byerly

Genre: Informational

Length: 185 words

Synopsis: This text explains how ants grow their own food by chewing up leaves and spitting them out to grow mold which they eat. There are facts about Leafcutter ants in the back of the book.

Citation: Byerly, Wendy. (2013). *Ant Farmers*. King of Prussia, PA: American Reading Company.

Cost/Access: \$8.50 per paperback

Recommended Student Activities: Wonderings

#### **600L Praying Mantis**

Author: Trace Taylor

Genre: Nonfiction Informational

Length: 24 pages

Synopsis: This short informational book with interesting photographs teaches what praying mantises like to eat including each other and their babies. The back of the book has a diagram of the body parts of the praying mantis as well as a food web of what the mantis eats.

Citation: Taylor, Trace (2012). *Praying Mantis*. King of Prussia, PA: American Reading Company.

Cost/Access: \$8.50 per book (includes eBook)

Recommended Student Activities: Picture of Knowledge

#### **N/A Let's Talk About Insects**

Author: Pablo Kalney, Greg Stack, Jane Scherer

Genre: Interactive Cartoon Powerpoint

Length: 51 Pages

Synopsis: This is an interactive cartoon powerpoint that is narrated along with text to the reader. The reader clicks through the powerpoint at their own pace. This is a complex, vocabulary rich resource that discusses interesting facts, insect body parts and functions, how insects grow and develop (metamorphosis), and the importance of insects in our environment. Because so much is included, this resource may be spread out over several days.

Citation: Kalney, P., Stack, G. and Scherer, J. (n.d). *Let's Talk About Insects*. Retrieved from University of Illinois website: <http://urbanext.illinois.edu/insects/01.html>

Cost/Access: \$0.00

Recommended Student Activities: Picture of Knowledge

#### **N/A Eee Gads... A New Bug**

Author: Pablo Kalney, Greg Stack, Jane Scherer

Genre: Interactive Infographic

Length: N/A

Synopsis: Students can build their own insect by choosing different body parts and then completing a description about their insect. They can also describe if their insect is beneficial or a pest, its habitat, what it eats, as well as an interesting fact. Most of the text is read aloud to assist students and it is recommended that this activity would first be done as a class and then independently so that students are more familiar with the resource.

Citation: Kalney, P., Stack, G., and Scherer, J. (n.d). *Eee Gads... A New Bug*. Retrieved from University of Illinois website: <http://urbanext.illinois.edu/insects/newbug.html>  
Cost/Access: \$0.00  
Recommended Student Activities: Quiz Maker

**N/A Where Do Butterflies Get Their Colors?**

Author: Discovery Communications LLC  
Genre: Informational  
Length: 405 Words  
Synopsis: This article tells readers how butterflies get different color wings and how the colors appear to the human eye.  
Citation: Discovery Communications LLC. (2015). *Where Do Butterflies Get Their Colors?* (n.d.). Retrieved from  
<http://discoverykids.com/articles/where-do-butterflies-get-their-colors/>  
Cost/Access: \$0.00  
Recommended Student Activities: Quiz Maker

**N/A 42 Butterflies of North America**

Author: Lutz, Eleanor  
Genre: Informational (infographic); measurement, scale and maps  
Length: N/A  
Synopsis: This infographic shows 42 of the butterflies in North America. It includes a map of the region, their scientific names and a scale of their actual wingspan.  
Citation: Lutz, Eleanor. (2014). *42 Butterflies of North America*. Retrieved from  
<http://tabletopwhale.com/2014/08/27/42-butterflies-of-north-america.html>  
Cost/Access: \$0.00  
Recommended Student Activities: Wonderings

**1000L Bugs!**

Author: Dave Greenberg  
Genre: Literary Nonfiction; narrative poem with rhyming couplets  
Length: 32 pages  
Synopsis: This book covers many clever uses of bugs such as a lightning bug for Christmas tree lights. It incorporates the names of many insects with hilarious watercolors and descriptive language of use for each bug.  
Citation: Greenberg, David T. (1997). *Bugs!* New York: Little, Brown Books for Young Readers  
Cost/Access: \$6.92  
Recommended Student Activities: Wonderings

## Supports for Struggling Students

By design, the **gradation of complexity** within each Expert Pack is a technique that provides struggling readers the opportunity to read more complex texts. Listed below are other measures of support that can be used when necessary.

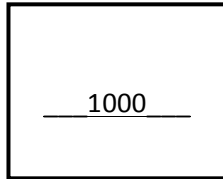
- Provide a brief **student-friendly glossary** of some of the academic vocabulary (tier 2) and domain vocabulary (tier 3) essential to understanding the text
- Download the Wordsmyth widget to classroom computers/tablets for students to access student-friendly definitions for unknown words. <http://www.wordsmyth.net/?mode=widget>
- Provide brief **student friendly explanations** of necessary background knowledge
- Include **pictures or videos** related to the topic within and in addition to the set of resources in the pack
- Select a small number of texts to **read aloud** with some discussion about vocabulary work and background knowledge
- Provide **audio recordings** of the texts being read by a strong reader (teacher, parent, etc.)
- **Chunk the text** and provide brief questions for each chunk of text to be answered *before* students go on to the next chunk of text
- Pre-reading activities that focus on the **structure and graphic elements** of the text
- Provide **volunteer helpers** from the school community during independent reading time.

## Text Complexity Guide

*Bugs!*, by David T. Greenberg

### 1. Quantitative Measure

Go to <http://www.lexile.com/> and enter the title of the text in the Quick Book Search in the upper right of home page. Most texts will have a Lexile measure in this database. You can also copy and paste a selection of text using the Lexile analyzer.



2-3 band	420 -820L
4-5 band	740 -1010L
6-8 band	925 - 1185L
9 -10 band	1050 – 1335L
11 – CCR	1185 - 1385

### 2. Qualitative Features

Consider the four dimensions of text complexity below. For each dimension\*, note specific examples from the text that make it more or less complex.

The purpose of this text is to expose students to more interesting insect through rhyming and descriptive language use about each bug. The water color illustrations in the text help support and build upon the descriptive language and help support the learning of the new vocabulary. Students will be challenged to look for new information while enjoying the humorous language.

#### Meaning/Purpose

The structure is written in rhyming couplets with four sentences on each page after the introduction to the book. The text changes location on the pages and fits within the illustrations for much of the time.

#### Structure

Language demands play a large role with this text as the author uses creative and uncommon words to describe the silly things insects do. Within the text, informal text abound such as *restin'* and *nestin'*. Some sentences or phrases end with an ellipses or a dash which may be unfamiliar to readers. The lighthearted structure and informal language lend to the humor and fun of reading the text.

#### Language

#### Knowledge Demands

The subject matter of insects should be familiar to students reading the expert pack. The text is written in rhyming couplets which readers may need explanation and support around. Students will be exposed to interesting and possibly unfamiliar language which will lend itself to a class discussion.

### 3. Reader and Task Considerations

*What will challenge students most in this text? What supports can be provided?*

- Illustrations support the vocabulary demands of the text. Discussions and multiple rereading will also support the vocabulary demands of the text.
- Discussions around use of rhyme and rhyming patters will support students with the understanding of the structure of the text.
- Encouraging students to make connections to other texts in set to support understanding.
- Using graphic organizers with names of the new insects and what they do could help to keep track of the new information.
- Finding and rereading juicy sentences with voice could provide speaking and listening lessons for the class.

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Submitted by: Corbett-Mathews, Washoe, Nevada

Grade: K

Date: May 2015

### **Learning Worth Remembering**

**Cumulative Activities** – The following activities should be completed and updated after reading each resource in the set. The purpose of these activities is to capture knowledge building from one resource to the next, and to provide a holistic snapshot of central ideas of the content covered in the expert pack. *It is recommended that students are **required** to complete one of the Cumulative Activities (Rolling Knowledge Journal or Rolling Vocabulary) for this Expert Pack.*

#### **1. Rolling Knowledge Journal**

*Note to Teacher: This can be done whole class by creating a large chart for students to add to or teacher to add to interactively. Individual journals can be made as with pictures added.*

1. Read each selection in the set, one at a time.
2. After you read *each* resource, stop and think what the big learning was. What did you learn that was new *and important* about the topic from *this* resource? Write, draw, or list what you learned from the text about (topic).
3. Then write, draw, or list how this new resource added to what you learned from the last resource(s).

#### **Sample Student Response**

Title	Write, Draw, or List	
	New and important learning about the topic	How does this resource add to what I learned already?
1. <b>Ant, Ant, Ant!: An Insect Chant!</b>		There are so many interesting insects with interesting features and names.
2. <b>What is an insect?</b>	Insects have 6 legs, most have wings, and they have feelers to smell with.	Tells what makes an insect an insect and why a spider isn't an insect.
3. <b>Ant Farmers</b>	Leafcutter ants make their own food from mold.	Insects have different ways of living and eating.
4. <b>Praying Mantis</b>	Praying Mantis eat a lot of other bugs, including other Praying Mantis.	Insects eat many things in our environment.
5. <b>Let's Talk About Insects</b>	Insects have three body parts: a head, thorax, and abdomen. Insects can help or hurt us.	Facts about insects, what the body parts do and why we have insects.
6. <b>Eee Gads... A New Bug</b>	Design a new insect using basic insect parts to see how it would look.	Have to have the right size wings or legs in order for the insect to fly or walk.
7. <b>Where Do Butterflies Get Their Colors?</b>	Butterfly wings are unique in the way their wings are iridescent.	Insects have ways to help them live. For example, bright wings on a butterfly help to camouflage or send warning signals.

8. <b>42 Butterflies of North America</b>	There are many different kinds, sizes, and colors of butterflies.	Butterflies have different color wings depending on where they live.
9. <b>Bugs!</b>	There are many different kinds of bugs and they are all very interesting.	There are so many bugs to study and learn about!

## 2. Rolling Vocabulary: “Sensational Six”

*Note to Teacher- this can be done whole class on poster paper or in small groups. You may choose to have students add these words, with a picture and sentence, to their Bug Alphabet Book.*

- Read each resource then determine the 6 words from each text that most exemplify the central idea of the text.
- Next use your 6 words to write about the most important idea of the text. You should have as many sentences as you do words.
- Continue this activity with EACH selection in the Expert Pack.
- After reading all the selections in the Expert Pack, go back and review your words.
- Now select the “Sensational Six” words from ALL the word lists.
- Use the “Sensational Six” words to summarize the most important learning from this Expert Pack.

Title	Three Vocabulary Words & Sentences
<b>Ant, Ant, Ant!: An Insect Chant!</b>	<p><b>Words: insects, hiding, queen, camouflage, scavenge, pollinate</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. An <b>insect</b> is a living thing that has three body parts, 6 legs, and can have wings.</li> <li>2. Many <b>insects</b> use hiding as a way to survive.</li> <li>3. The <b>queen</b> bee is in charge of all the other bees in her colony or home.</li> <li>4. Insects use <b>camouflage</b> to hide from their predators.</li> <li>5. Insects work together to <b>scavenge</b> for food to eat.</li> <li>6. We need insects to help <b>pollinate</b> flowers for food to eat.</li> </ol>
<b>What is an insect?</b>	<p><b>Words: wings, feelers, ladybird, legs, lovely, all</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. Some insects have <b>wings</b> that allow to fly.</li> <li>2. Insects have <b>feelers</b>, or antennae to help them smell since they do not have a nose.</li> <li>3. Sometimes a ladybug is called a <b>ladybird</b>.</li> <li>4. Insects have <b>legs</b> to help them walk and climb.</li> <li>5. There many <b>lovely</b> insects in our world such as butterfly.</li> <li>6. <b>All</b> insects have a purpose in our world.</li> </ol>
<b>Ant Farmers</b>	<p><b>Words: feed, grow, nest, mold, colony, farm</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. Ants on an ant farm <b>feed</b> leaves to mold to get new food.</li> <li>2. The more leaves the ants feed to the mold, the more it <b>grows</b>.</li> </ol>



	<ol style="list-style-type: none"> <li>3. The <b>nest</b> is the home for the ants.</li> <li>4. The ants grow the <b>mold</b> for food to eat.</li> <li>5. Ants live together in a <b>colony</b>, often underground.</li> <li>6. Leafcutter ants grow mold on their own <b>farm</b>.</li> </ol>
Praying Mantis	<p><b>Words: eat, want, many, simple eye, complex eye, front legs</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. Praying Mantis <b>eat</b> many other insects to survive.</li> <li>2. The babies of a Praying Mantis <b>want</b> out of their nest to eat.</li> <li>3. <b>Many</b> babies come out of the nest.</li> <li>4. The Praying Mantis has three <b>simple eyes</b> that can look in one direction.</li> <li>5. The Praying Mantis has 2 <b>complex eyes</b> that can rotate and look in many directions.</li> <li>6. The two <b>front legs</b> on a Praying Mantis are strong for grabbing and stabbing.</li> </ol>
Let's Talk About Insects	<p><b>Words: species, exoskeleton, abdomen, mouth, thorax, composite</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. There are all different <b>species</b>, or kinds, of insects.</li> <li>2. The <b>exoskeleton</b> is the outer skeleton of an insect.</li> <li>3. The middle part of insects body that holds most of it's' organs is called the <b>abdomen</b>.</li> <li>4. Many insects have a <b>mouth</b> to eat and chew with.</li> <li>5. The <b>thorax</b> of an insect's body connects with the legs and wings.</li> <li>6. Some insects of single eyes while others have <b>composite</b> eyes which are made of many eyes.</li> </ol>
Eee Gads...A New Bug	<p><b>Words: antenna, types, beneficial, pest, discovered, body</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. Some insects have <b>antenna</b>, or feelers, which are used to feel and touch things.</li> <li>2. There are many <b>types</b>, or kinds, of insects in the world.</li> <li>3. Many times insects are <b>beneficial</b>, or helpful, to our world.</li> <li>4. Some insects are <b>pests</b>, which means they are harmful to their environment.</li> <li>5. New insects are being <b>discovered</b> all the time.</li> <li>6. The <b>body</b> of an insect is made up of the abdomen and the thorax.</li> </ol>
Where Do Butterflies Get Their Colors?	<p><b>Words: possesses, camouflage, unique, display, iridescence, combinations</b></p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. A butterfly <b>possesses</b> colorful wings for many reasons.</li> <li>2. <b>Camouflage</b> helps a butterfly blend in with its surroundings.</li> <li>3. A butterfly's wings are <b>unique</b>, unlike any other wings because of the iridescence.</li> <li>4. The wings of a butterfly are on <b>display</b> for us to see when they are sitting still.</li> <li>5. A butterfly's wings have iridescence because they are see-through and have many layers of color.</li> </ol>

	6. The wings of a butterfly have many different color <b>combinations</b> .
<b>Bugs!</b>	<p><b>Words:</b> hatch, microscopic, size, investigate, adore, flavor</p> <p><b>Sentences:</b></p> <ol style="list-style-type: none"> <li>1. Insects <b>hatch</b>, or are born, from eggs.</li> <li>2. Some bugs are <b>microscopic</b>, too small to see with the human eye.</li> <li>3. Insects come in all <b>sizes</b>, from microscopic to very large.</li> <li>4. We can <b>investigate</b>, or study, all the different kinds of insects in our world.</li> <li>5. An entomologist that studies insects probably <b>adores</b> them</li> <li>6. When we eat insects, they have an interesting <b>flavor</b>.</li> </ol>
<p><b>Summary:</b>  <b>Insects</b> come in all shapes and sizes, but always have 6 legs and three body parts. Some have <u>wings</u> and <u>grow</u> their own food. Insects <u>eat</u> many different things including each other. They are all very <u>unique</u> because some are helpful and some are pests. There are so many insects to <u>investigate</u> in the future!</p>	

### 3. Bug Alphabet Book

*Note to Teacher- Each student may have their own Alphabet book to add to during small group time. They may use the Rolling Knowledge Journal, Rolling Vocabulary Journal, and resources to add to each page. Students will write the word, a picture, and a sentence using the word.*

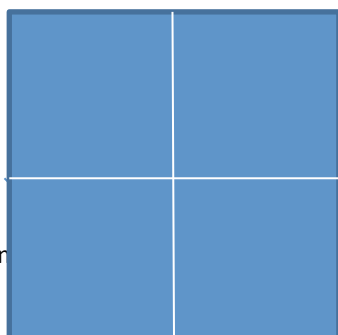
<p><b>A</b> ant [sketch] An ant is an insect with 6 legs.</p>	<p><b>B</b> butterfly [sketch] A butterfly has iridescent wings to camouflage itself.</p>
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#### Learning Worth Remembering

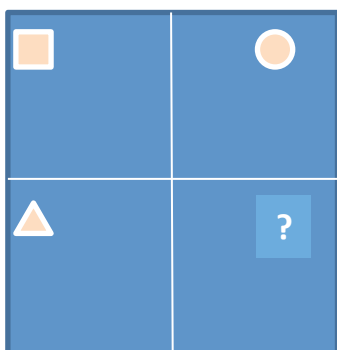
**Singular Activities** – the following activities can be assigned for each resource in the set. The purpose of these activities is to check for understanding, capture knowledge gained, and provide variety of ways for students to interact with each individual resource. Students may complete some or none of the suggested singular activities for each text. Singular activities should be assigned at the discretion of the teacher.

#### 1. A Picture of Knowledge (Recommended for *What is an insect?*, *Let's Talk About Insects*, *Ant Farmer*, and *Praying Mantis*)

- Teacher can do this whole class with large chart paper or individual students can take a piece of paper and fold it two times: once across and once top to bottom so that it is divided into 4 quadrants.



- Draw these shapes in the corner of each quadrant.



1. Square
2. Triangle
3. Circle
4. Question Mark

- Write!

Square: What one thing did you read that was interesting to you?  
 Triangle: What one thing did you read that taught you something new?  
 Circle: What did you read that made you want to learn more?  
 Question Mark: What is still confusing to you? What do you still wonder about?

- Find at least one classmate who has read [selection] and talk to each other about what you put in each quadrant.

## 2. Quiz Maker (Recommended for *Ant, Ant, Ant: An Insect Chant!*, *Let's Talk About Insects*, and *Where do Butterflies Get Their Colors?*)

- Make a list of 3 questions that would make sure another student understood the information.
- Your classmates should be able to find the answer to the question from the resource.
- Include answers for each question.
- Include the where you can find the answer in the resource.

Question	Answer
1. Ex. What makes a butterfly's wings unique?	Butterfly wings are see-through.
2.	
3.	

**3. Wonderings** (Recommended for *What is an insect?*, *Ant Farmer*, *Praying Mantis*, and *Bugs!*)

On the left, track things you don't understand from the article as you read.

On the right side, list some things you still wonder (or wonder now) about this *topic*.

I'm still confused about	This made me wonder:

**4. Pop Quiz** (Recommended for *Let's Talk About Insects*)

Answer the following questions.

Question	Possible Answer
1. What are the parts of an insect?	Insects have three body parts, a head, thorax, and abdomen.
2. How are insect eyes different from our eyes?	Insects have thousands of lenses that allows them to have a larger field of vision.
3. Describe how an insects smells.	Insects don't have noses. They breathe through the side of their bodies or abdomen.
4. Name some ways insects help us.	Bees pollinate flowers and give us honey. Butterflies make silk and pollinate flowers. Praying Mantises eat bugs that may hurt your garden.

### **Expert Pack: Icky Insects**

Submitted by: Corbett-Mathews, Washoe, Nevada

Grade: K-1

Date: May 2015

#### Expert Pack Glossary

#### **Ant, Ant, Ant! An Insect Chant!**

<i>Word</i>	<i>Student-Friendly Definition</i>
insect	An insect is an animal with three body parts, and six legs. The body parts are clearly divided into a head, thorax, and abdomen and can also have antennae and wings.
hiding	Hiding is to put or be out of sight. Hiding can be used for protection or to be kept a secret.
queen	The female in charge. The queen ant is an adult, and will help mother all the other ants for the colony.
more	To have more of something is to have a bigger or greater amount. There are still many more insects to learn about.
pollinate	To transfer pollen from antennae to a flower. Many different insects help our farmers by pollinating their crops.
camouflage	Something that protects an animals from an attack by making them difficult to see. The rabbits white fur helps him camouflage in the white snow.
scavenge	Searching for food to eat. The bears scavenged the woods for food to feed their cubs.

## What is an Insect?

	<i>Student-Friendly Definition</i>
wings	A part of an animal's body that is used for flying. Some insects have wings that help them fly.
feelers	Insects have feelers, also called antennae, to smell with instead of a nose.
ladybird	A type of small flying insect that has a round red back with dark spots, also called a ladybug.
legs	One of the long body parts that are used especially for standing, walking, and running. I have strong legs that help me walk to my classroom.
lovely	Something that is very good. Today was a lovely day.
all	Everything is a group. These are all of my toy trucks.

## Ant Farmers

	<i>Student-Friendly Definition</i>
farm	A farm can be land or water dedicated to raising plants or animals such as insects. The female ants work hard to grow mold on their farm.
feed	To give food or nourishment. The ants feed the mold leaves to help it grow.
mold	A fungus that grows on different kinds of damp or rotting plants. Leafcutter ants grow then eat mold.
grow	To grow means to become larger or bigger. Leaf cutter ants grow mold on their farms.
nest	A nest is a place for animals to keep things safe. An ant places her eggs or young in a nest.

colony	A group of people, plants, or animals that live and grow in one place. Ant colonies can be huge, made up of millions of ants!
weight	Weight is how heavy or light an object can be. An ant is so strong that it can carry objects that are up to 50 times their own weight.
tropical	A tropical area is very hot and humid. Many different kinds of ants live in tropical areas, like South and Central America.

### Praying Mantis

	<i>Student-Friendly Definition</i>
eat	When we eat, we chew and swallow food. Some praying mantises eat grasshoppers.
want	To wish or feel a need for something. When praying mantis babies are born all they want to do is eat.
many	To have many is to have a lot or large number. Insects can have many babies!
simple eye	The simple eyes in an insect have only one lens and help detect items that are in close range.
complex eye	A complex eye contains thousands of mini eyes. The complex eyes of a praying mantis can help them spot prey many feet away.
front legs	The front grabbing and stabbing legs of a praying mantis are designed to catch and hold on to their prey tightly.

### Let's Talk About Insects

<i>Word</i>	<i>Student-Friendly Definition</i>
species	A group of animals or plants that are similar. There are approximately 8,000 <i>species</i> of ants.

exoskeleton	A hard covering on the outside of the body. Insects have an outside skeleton, or exoskeleton.
mouth	The part of the body used for eating. I stuffed all of my food in my mouth.
thorax	The middle section of an insect's body. The thorax is what is connected to an insect's wings and legs.
abdomen	The rear part of an insect's body. Many of the insect's important organs are in its abdomen.
composite	Made of different parts. Some insects have composite eyes.

#### Eee Gads... A New Bug

<i>Word</i>	<i>Student-Friendly Definition</i>
antenna	An organ on the head of an insect that is used mainly to feel and touch things.
types	Groups of things or people. What is your favorite food group?
beneficial	Something that helps. The janitor is beneficial because he helps us clean our room.
pest	An animal or insect that causes problems for people. The ants were being pests during the picnic.
discovered	To see or find something for the first time. We discovered a treasure chest under the tree.
body	The main part of a person or animal. This animal had a black body and a white head.



### Where Do Butterflies Get Their Colors?

<i>Word</i>	<i>Student-Friendly Definition</i>
possesses	To have something is to possess. You possess your backpack and your ideas.
display	Butterflies display, or show their colorful wings. A butterfly displays their wings as they drink the nectar from a flower.
camouflage	Camouflage helps animals blend into their environment. A butterfly's brightly colored wings help them camouflage with the flowers.
iridescence	Iridescence is when color changes as you move. A soap bubble, seashell, some fish, and peacocks have iridescence like a butterfly.
unique	Unique is when something makes something different from like things. A butterfly's wings are unique because they have more layers in their wings.
combinations	A combination means to combine, or put together things. Butterfly wings have a combination of colors.

### Bugs!

<i>Word</i>	<i>Student-Friendly Definition</i>
hatch	To break open an egg or another kind of covering from the inside and come out of it
investigate	To look at something or study something very closely so you will learn everything about it and understand it very well
adore	To love someone or something a lot. You can adore your baby

	sister, your pet or your favorite food or many other things.
microscopic	Something that is so small that you can't see it. Bits of dust, some plants that live in the ocean and germs are all so small that you can't see them.
size	How big or small something or someone is. As you grow, you wear clothes that are bigger in size because you are getting bigger.
flavor	How something tastes. A flavor can be salty like potato chips. Some foods have many flavors like ice cream. You can taste strawberry flavor in strawberry ice cream or Oreos in cookies and cream ice cream.