**Expert Pack: Icky Insects**

Lexile Range: 447-470

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| **Topic/Subject:** Interesting Insects |
| **Texts/Resources**Books1. *Ants*, *Ants,* *and More Ants* by Brian Roberts
2. *Are You an Ant?* by Judy Allen

Other Media1. Icky Insects [Animated song]
2. What is An Insect? (Animated video)
3. Let’s Talk About Insects [Interactive PowerPoint]
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| **Rationale and Suggested Sequence for Reading**In the first resource, students will watch the animated video “What is an Insect?” which explains the body parts that make an insect an insect. The next resource is the song, “Icky Insects,” that discusses the parts of an insect. Students will then interact with an online PowerPoint, “Let’s Talk About Insects,” to gain even more knowledge about different kinds of bugs, the life cycle, habitats, and defenses of bugs. With that knowledge, students will then turn their focus to a study of ants with the books: *Ants, Ants, and more Ants* and *Are You an Ant?* |
| **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
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| **College and Career Readiness Anchor Standards for Reading Literary and/or Informational Texts** 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.
3. *Read and comprehend complex literary and informational texts independently and proficiently.*
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| **Annotated Bibliography** **N/A “What is an Insect?”**Author: HooplaKidz TVGenre: Informational cartoon Length: 2:00 minutesSynopsis: 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>Recommended Student Activities: Picture of Knowledge**N/A “Icky Insects”**Author: Silly BusGenre: SongLength: 3:54 minutesSynopsis: This song describes the parts of an insect’s body.Citation: SillyBus. (2016, November 23). *Icky Insects* [Video file]. Retrieved from<https://www.youtube.com/watch?v=SYawa4piO4k>Recommended Student Activities: A Picture of Knowledge**N/A “Let’s Talk About Insects”**Author: Pablo Kalney, Greg Stack, Jane SchererGenre: Interactive Cartoon PowerpointLength: 51 PagesSynopsis: 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>Recommended Student Activities: Pop Quiz**450L *Ants, Ants, and More Ants***Author: Brian RobertsGenre: BookLength: 12 pagesSynopsis: This book explores how ants look like and how they work in groups.Citation: Roberts, Brian. *Ants, Ants, and More Ants.* Retrieved from <https://www.raz-plus.com/books/leveled-books/book/?id=85&lang=English>. **447L *Are You an Ant?***Author: Judy AllenGenre: BookLength: 30 pagesSynopsis: This conversational text explores the life of an ant from being born to how they survive. Citation: Allen, J. (2002). *Are you an ant?* New York: Kingfisher.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.
* Use Expert Packs as the **resources for Guided Reading** with a small group of students

Why Text Sets Support English Language Learners

Those acquiring English as a second language have to learn many words in English to catch up with their English-only peers. Vocabulary builds at a much quicker pace when reading a set of connected texts. Text sets are an adaptable resource perfect for building knowledge and vocabulary. Student use of text sets can vary in terms of independence or teacher supports based on the individual needs of the students in the room. Activities found within the text set resources reflect several best practices for English Language Learner instruction including:

* Providing brief, engaging texts that provide a high volume of reading on a topic.
* Providing web-based resources and/or videos that are tied to the content of the texts students are reading.
* Providing opportunities for students to learn new vocabulary through the use of student-friendly definitions in resource-specific glossaries.
* Allowing for options to reinforce newly learned vocabulary and/or content through graphic organizers.
* Providing opportunities for students to reinforce new vocabulary through multi-modal activities including written work, group discussion, viewing visual content, and reading texts that feature the vocabulary.

Teachers of ELLs may use the protocols on the following pages to provide additional support to students who are struggling to access the content within text sets because they are new to English.

ELL Text Set Protocol Grades K-2

The protocol below assumes that students will be engaged in reading text sets with the support of the teacher and/or another adult staff member. This can be done full class, or in small groups, but will likely require adult support in this grade band.

Please note that this protocol includes options for teachers. This includes the order in which various activities (steps) take place. Individual decisions should be made considering the needs of the students and the demands of the content, keeping in mind that the goal of each scaffold is to allow students to meaningfully access each text and move toward independent, knowledge-building reading.

**Step one: Build knowledge and vocabulary as you build student interest and engagement in the topic.**

Introduce students to the overall topic/content of the text set, including knowledge demands needed to engage in the content, and domain-specific vocabulary necessary for comprehension. This should be done prior to engaging with the texts themselves – time allotted to this activity should reflect student needs (anywhere from 5 minutes prior to reading, to a full day’s lesson is appropriate).

*Options for this step include:*

* Engage students in reading and discussing auxiliary texts and resources (illustrations, photographs, video clips) on the topic of the text set.
* Pre-teach a few key content-specific terms prior to students engaging with a text set. (Ideas for text-focused vocabulary instruction can be found [here](https://achievethecore.org/content/upload/Selecting%20and%20Using%20Academic%20Vocabulary%20in%20Instruction.pdf).)
* Provide a student-friendly glossary prior to reading each text, with picture support where possible.

If pairing the text set with a [Read Aloud lesson](https://achievethecore.org/category/411/ela-literacy-lessons?filter_cat=788), giving students access to the resources in the text set can help build their knowledge and vocabulary prior to engaging with the anchor or primary text, as can access to the resources alongside subsequent reads of the anchor text. The “juicy sentence” discussion is a strategy developed by Dr. Lily Wong Fillmore to help students learn to deconstruct and reconstruct sentences, and to understand how different language features contribute to meaning. Teachers should use the [juicy sentence guidance](https://achievethecore.org/page/3160/juicy-sentence-guidance) to dig deeply into a sentence or phrase within the read aloud book, to build vocabulary, deepen content knowledge, and support understanding of syntax and grammar. Juicy sentence work should not be done for the other texts in the text set, since the purpose is for students to work rapidly through a high-volume of reading to build knowledge.

**Step two: Read text orally.**

Focusing on one resource at a time, allow students to listen to a fluent read of the resource.

*Options for this step include:*

* Have the teacher model the first read of a text or resource.
* Use recordings of the text to provide additional opportunities to hear expert reading.

**Step three: Engage in group discussion about the content.**

Allow students time in partnerships or small groups to discuss the content of the resource.

*Options for this step include:*

* + Allow for discussion/conversation (in the students’ home language if possible) with a small group of students reading the same text set prior to writing orprovide heterogeneous language groupings to talk about content and discuss what students are learning.
	+ Provide opportunities to practice using newly acquired vocabulary in the context of discussion.
	+ Have students refer to the student-friendly glossary included with each passage to identify meanings for new vocabulary necessary for comprehension.

**Step four: Write about what was read.**

*Options for this step include:*

* Use the “Rolling Knowledge Journal” and/or “Rolling Vocabulary Journal” as a shared writing routine.
* Have students complete the “Rolling Knowledge Journal” and/or “Rolling Vocabulary Journal” as independent graphic organizers that help to scaffold the writing process and capture student knowledge over time. Encourage students to use a combination of writing and drawing.
* Provide students with several supports to help students engage in writing/drawing about what they read:
	+ Use mentor texts about which students can pattern their writing.
	+ Allow them to write collaboratively.
	+ Show students visual resources as prompts, etc.
	+ Provide language supports such as strategically chosen sentence starters.

**Repeat steps one through four with each resource in the text set as appropriate.**

ELL Text Set Protocol Grades 3-12

The goal of text sets is to help students build knowledge through a volume of independent reading, and it is important that educators provide scaffolds to allow English Language Learners to be successful in engaging meaningfully with the texts, even as students are still developing English language skills. The protocol below can be used for teaching with text set resources as a full class. Students can also be trained on the protocol so that they can utilize text sets in small groups or partnerships as a resource for independent or reciprocal reading and study.

Please note that this protocol includes options for teachers. Individual decisions should be made considering the needs of the students and the demands of the content, keeping in mind that the goal of each scaffold is to allow students to meaningfully access the text and move toward independent, knowledge-building reading.

**Step one: Build knowledge and vocabulary.**

Introduce students to the overall topic/content of the text set, including knowledge demands needed to engage in the content, and domain-specific vocabulary necessary for comprehension. This should be done prior to engaging with the texts themselves; time allotted to this activity should reflect student needs (anywhere from 5 minutes prior to reading, to a full day’s lesson is appropriate).

*Options for this step include:*

* Engage students in reading and discussing auxiliary texts (of lesser complexity) and resources (illustrations, photographs, video clips) on the topic of the text set.
* Pre-teach a few key content-specific terms prior to students engaging with a text set. (Ideas for text-focused vocabulary instruction can be found [here](https://achievethecore.org/content/upload/Selecting%20and%20Using%20Academic%20Vocabulary%20in%20Instruction.pdf).)
* Provide the student-friendly glossary included in the text set prior to reading each text.
* When possible, allow students to read texts in their home language about the topic under study.

**Step two: Read text orally.**

Focusing on one resource at a time, allow students to listen to a fluent read of the resource, while following along with their own copy of the text.

*Options for this step include:*

* Have a fluent reader model the first read of a text or resource.
* Have students engage in a buddy/partner read.
* Use recordings of the text to provide additional opportunities to hear expert reading.

**Step three: Engage in group discussion about the content.**

Allow students time in partnerships or small groups to discuss the content of the resource.

*Options for this step include:*

* + Allow for discussion/conversation (in the students’ home language if possible) with a small group of students reading the same text set prior to writing or provide heterogeneous language groupings to talk about content and discuss what students are learning.
	+ Have students refer to the student-friendly glossary included with each text set to identify meanings for new vocabulary necessary for comprehension.

**Step four: Write about what was read.**

*Options for this step include:*

* Use the “Rolling Knowledge Journal” and/or “Rolling Vocabulary Journal” as a shared writing routine/ graphic organizer to help to scaffold the writing process and capture student knowledge over time.
* Provide students with several supports to help students engage in writing/drawing about what they read:
	+ Use mentor texts about which students can pattern their writing.
	+ Allow them to write collaboratively.
	+ Show students visual resources as prompts, etc.
	+ Provide language supports such as strategically chosen sentence starters.

**Repeat steps one through four with each resource in the text set as appropriate.**

**Expert Pack: Icky Insects**

**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.*

* Read each selection in the set, one at a time.
* 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.
* Then write, draw, or list how this new resource added to what you learned from the last resource(s).

**Sample Student Response**

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| --- | --- |
| **Title** | **Write, Draw, or List** |
|  | **New and important learning about the topic** | **How does this resource add to what I learned already?** |
| 1. “What is an Insect?”
 | Insects have 6 legs, most have wings, and they have feelers to smell with. |  |
| 1. “Icky Insects”
 | Insects have three body parts, six legs, and are born from eggs. | Describes each body part of an insect. |
| 1. “Let’s Talk About Insects”
 | Goes over how ants look like but also explains how they work in groups. | Describes where ants have their nests and the roles of workers ants and the queen. |
| 1. *Ants, Ants, and More Ants*
 | Ants hatch from eggs as larvae and then turn into pupae. Pupae eventually turn into adult ants. | Ant larvae need to eat a lot so they can grow to be adult ants. |
| 1. *Are You an Ant?*
 | Ant larvae eat eggs to grow so they can change into a pupa. A pupa is like an egg, only bigger. | Ants use their feelers touch their surroundings and to communicate with each other. |

**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.

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| **Title** | **Six Vocabulary Words & Sentences** |
| “What is an Insect?” | Words: insect, wings, feelers, ladybird, legs, lovely1. An insect is a living thing that has three body parts, 6 legs, and can have wings.
2. Some insects have wings that allow to fly.
3. Insects have feelers, or antennae to help them smell since they do not have a nose.
4. Sometimes a ladybug is called a ladybird.
5. Insects have legs to help them walk and climb.
6. There many lovely insects in our world such as butterfly.
 |
| “Icky Insects” | Words: thorax, abdomen, exoskeleton, hatch, arthropods, divided1. The thorax of an insect’s body connects with the legs and wings.
2. The middle part of insects body that holds most of its organs is called the abdomen.
3. The exoskeleton is the outer skeleton of an insect.
4. Insects hatch from an egg.
5. An arthropod is an animal with an exoskeleton and body that is separated in different parts.
6. Arthropods have their bodies divided into distinct parts.
 |
| “Let’s Talk About Insects” | Words: species, exoskeleton, abdomen, mouth, thorax, composite1. There are all different species, or kinds, of insects.
2. The exoskeleton is the outer skeleton of an insect.
3. The middle part of an insect’s body that holds most of its organs is called the abdomen.
4. Many insects have a mouth to eat and chew with.
5. The thorax of an insect’s body connects with the legs and wings.
6. Some insects have single eyes while others have composite eyes, which are made of many eyes.
 |
| *Ants, Ants, and More Ants* | Words: swarm, antennae, strong, nests, worker ants, queen1. Hundreds of ants swarmed the food dropped on the floor.
2. Ants talk to each other with the antennae on the top of their heads.
3. Most ants are strong and can carry food back to the other ants.
4. Ants live in nests built with branches.
5. Worker ants help keep the other ants alive.
6. The queen ant is the head female ant.
 |
| *Are You an Ant?* | Words: mating, larva, pupa, feelers, prey, aphids* + - 1. The ant went on a mating flight so she could lay eggs.
			2. A caterpillar is the larva of a butterfly.
			3. An ant larva changes into a pupa before it becomes an adult.
			4. An ant uses its feelers to touch and communicate.
			5. Fire ants inject poison into their prey.
			6. Aphids are small insects that suck juices from plants.
 |
| **Sensational Six** | Words: insects, hatch, larvae, pupae, exoskeleton, feelersThere are many types of **insects** in the world. Insects **hatch** from eggs before moving into the **larvae** and **pupae** stages of their life cycle. They come in all shapes and sizes, but they always have six legs and three body parts. An insect’s body is covered in a hard shell, called an **exoskeleton**, and they have **feelers**, or antennae to help them smell and communicate.  |

**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.*

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| --- | --- |
| **A**ant[sketch]An ant is an insect with 6 legs. | **B**butterfly[sketch]A butterfly has iridescent wings to camouflage itself. |

**Student Copy**

**1. Rolling Knowledge Journal**

* Read each selection in the set, one at a time.
* 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.
* Then write, draw, or list how this new resource added to what you learned from the last resource(s).

**Sample Response**

|  |  |
| --- | --- |
| **Title** | **Write, Draw, or List** |
| **New and important learning about the topic** | **How does this resource add to what I learned already?** |
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**2. Rolling Vocabulary: “Sensational Six”**

* 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.

**Sample Response**

|  |  |
| --- | --- |
| **Title:** | **Six Vocabulary Words & Sentences** |
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| **Sensational Six** | Words:  |

**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?” and “Icky Insects”)



1. **Quiz Maker** (Recommended for *Ants, Ants, and More Ants)*
* 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.

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| --- | --- |
| **Question** | **Answer** |
| 1. Ex.  What do caterpillars eat to help them grow? | They eat the leaves from the plant they are born on. |
| 2. |  |
| 3.  |  |

1. **Wonderings** (Recommended for *Are you an Ant?)*

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| --- | --- |
| **I’m still confused about:** | **This made me wonder:** |
| On the left, track things you don’t understand from the video and the article.  | On the right side, list some things you still wonder (or wonder now) about this topic. |

1. **Pop Quiz** (Recommended for *Let’s Talk About Insects*)

Answer the following questions. *An example is given for you.*

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| --- | --- |
| **Question** | **Possible Answer** |
| 1. What are the parts of an insect?
 | Insects have three body parts, a head, thorax, and abdomen. |
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**Expert Pack: Icky Insects**

Expert Pack Glossary

**“What is an Insect?”**

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| --- | --- |
| *Word* | *Student-Friendly Definition* |
| 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.*Ants have 2 feelers in their heads.* |
| ladybird | A type of small flying insect that has a round red back with dark spots, also called a ladybug.*The ladybird flew around and landed on leaf.* |
| legs | One of the long body parts that are used especially for standing, walking, and running.*All insects have legs, some have more than others.* |
| lovely | Something that is very good.*She had a lovely and great time at the party.* |

**“Icky Insects”**

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| *Word* | *Student-Friendly Definition* |
| thorax | The middle of the three main body parts of an insect. *An insect’s six legs grow from the thorax*. |
| abdomen | The back portion of an insect’s body. *An insect has three body parts: a head, thorax, and abdomen.* |
| exoskeleton | A hard shell on the covering an insect’s body. *Insects are protected by their hard exoskeleton.* |
| hatch | To be born out of an egg. *Insects hatch from an egg.* |
| arthropods | An animal with an exoskeleton and segmented body. *Insects can also be called arthropods.* |
| divided | To separate into two or more pieces. *An insect’s body is divided into three parts.* |
| distinctly | Clearly seen and different from each other. *An insect’s three body parts are distinctly divided.* |

“**Let’s Talk About Insects”**

|  |  |
| --- | --- |
| *Word* | *Student-Friendly Definition* |
| species | A group of animals or plants that are similar. *There are approximately 8,000 species 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.* |

***Ants***

|  |  |
| --- | --- |
| *Word* | *Student-Friendly Definition* |
| swarm | A large number grouped together.*Hundreds of ants swarmed the food dropped on the floor.* |
| antennae | Moveable organs on the top of an insect’s head that help communicate.*Ants have a pair of antennae on their head.* |
| thorax | The part of the body of a mammal between the neck and the abdomen.*The thorax connects the top and middle part of the ant’s body.* |
| jaw | The parts making up the walls of the mouth and serving to open and close it.*Ants have very strong jaws to bite their food.* |

***Are You an Ant?***

|  |  |
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| *Word* | *Student-Friendly Definition* |
| mating | To join or fit together to become a mate. *The ant went on a mating flight so she would be able to lay eggs.* |
| larva | A young, wormlike form that hatched from the egg of many insects. *A caterpillar is the larva of a butterfly.* |
| pupa | A stage of an insect that occurs between the larva and the adult and is usually enclosed in a cocoon or case. *The ant larva turns into a pupa so it can grow into an adult.* |
| feelers | Insects have feelers, also called antennae, to smell with instead of a nose. *The butterfly used its feelers to smell the flowers.* |
| prey | An animal hunted or killed by another animal for food. *Fire ants inject poison into their prey.* |

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