

Expert Pack: Poisonous Animals

Eva G. Simmons Elementary, Clark County School District, NV

Grade: 4

Date: August 2015

<p style="text-align: center;">Topic/Subject</p> <p style="text-align: center;">What effects does animal poison have on other animals and humans?</p>
<p style="text-align: center;">Texts/Resources</p> <p>Book(s)</p> <ol style="list-style-type: none">1. <i>Packed With Poison, Deadly Animal Defenses</i>2. <i>Seymour Simon's Top 50 Questions Reader: Poisonous Animals</i>3. <i>The World's Deadliest Creatures, Powerful and Poisonous</i> <p>Article(s)</p> <ol style="list-style-type: none">4. "Poisonous Fish: Blow Fish, Stingrays, Rabbit Fish, Stonefish"5. "The Sting and Stab Gang"6. "The Venom Doctor" <p>Other Media</p> <ol style="list-style-type: none">7. <i>Toxic</i> [online cartoon]8. <i>USA Spider Identification Chart</i> [website] <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 graded approach helps support students' ability to read the next selection and to become 'experts' on the top they are reading about.</p> <p><i>Refer to annotated bibliography on the following pages for the suggested sequence of readings.</i></p>
<p style="text-align: center;">Rationale and suggested sequence for reading:</p> <p>The first book, <i>Packed with Poison, Deadly Animal Defenses</i>, begins with compelling narrative vignettes about people getting bitten or stung. It is the "hook" that will peak the students' interest. It ends with a short piece about lifesaving venoms and poisons. Next comes the article, <i>The Venom Doctor</i>. This builds on the conclusion of the first book, showing a differing point of view: that venom can serve a useful purpose. The third item is the cartoon, "Toxic," that defines the differences between venomous and poisonous. This is important for essential vocabulary building. The fourth item is another book, <i>The World's Deadliest Creatures, Powerful and Poisonous</i>. Specifically, students will read pages 1, and pages 20-39. These pages feature a variety of poisonous and venomous animals with high-interest photography, trivia, and facts to further expand on the many varying toxic animals. The fifth item in the text set is an article available online: <i>Poisonous Fish: Blow Fish, Stingrays, Rabbit Fish, Stonefish</i>. As a bonus, there is also a video that accompanies this article. This article narrows the view to toxic sea creatures. After this, students will read, "The Sting and Stab</p>

Gang". This article highlights nine different poisonous sea creatures. This continues the examination of sea animals. The next item is a one page website, *USA Spider Identification Chart*. This shifts the focus to another species, arachnids. Finally, students will finish with the book, *Seymour Simon's Top 50 Questions Reader: Poisonous Animals*. This fun book contains fifty questions and answers about all types of poisonous animals. It is a great way to tie everything together and encourages students to test their own knowledge that they've build throughout this expert pack.

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

645L - 845L *Packed With Poison, Deadly Animal Defenses*

Author: D. M. Souza

Genre: Informational, includes narrative introduction and conclusion, section headings, glossary.

Length: 48 pages

Synopsis: In the ocean, a box jellyfish dangles tentacles covered with venom-filled stingers. The jellyfish uses its stingers to kill its prey. But its venom can also kill humans within minutes. The brightly colored poison dart frog is deadly to humans, too. Just a speck of its poison can kill a person. These two creatures are among the most venomous and poisonous animals in the world. How do animals use their poisons? When are humans in danger?

Citation: Souza, D. M., & Harris, J. (2006). *Packed with poison!: Deadly animal defenses*. Minneapolis, MN: Millbrook Press.

Cost/Access: \$5.50 - \$7.63

Recommended Student Activities: Wonderings

850L "The Venom Doctor"

Author: Sara Goudarzi

Genre: Informational article, biographical narrative

Length: 353 words

Synopsis: The story of Brian Grieg Fry, who catches venomous animals and extracts their venom to study for the use of developing medicines.

Citation: Goudarzi, Sara. "The Venom Doctor" Scholastic SuperScience. Feb. 2012. Vol. 23, Issue 5, Page 8-9.

Cost/Access: Free online: www.scholastic.com/browse/article.jsp?id=3756919

Recommended Student Activities: Picture of Knowledge

N/A "Toxic"

Author: birdandmoon.com

Genre: Cartoon

Length: One page

Synopsis: This witty cartoon defines the differences between venomous and poisonous. A snake is about to eat a mouse, but he hesitates when the mouse says the snake is poisonous. The snake defines the differences between poisonous and venomous. Other animals come by and offer more information on how they are toxic, including the difference between secreting toxins and injecting toxins.

Citation: Birdandmoon.com. (n.d.). Toxic [Cartoon]. Retrieved from <http://www.birdandmoon.com/comic/toxic/>

Cost/Access: Free online

Recommended Student Activities: Pop Quiz

860L - 1010L *The World's Deadliest Creatures, Powerful and Poisonous*

Author: Susan Evento and Elizabeth Dana Jaffee

Genre: Informational Text. Contains clear chapter titles and colorful photographs.

Length: 40 pages

Synopsis: Deadly creatures are found all over the world - in deserts, jungles, caves, the frozen tundra, and even the ocean. Some are big like polar bears, tigers, and hippos. Others are small like fire ants and beetles. No matter what their size, they all have deadly weapons.

Citation: Evento, S. & Jaffe, E. D. (2007). *The world's deadliest creatures*. Des Moines, Iowa: Meredith Books.

Cost/Access: \$6.99

Recommended Student Activities: Quiz Maker

1050L "Poisonous Fish: Blow Fish, Stingrays, Rabbit Fish, Stonefish"

Author: Eileen Kleinman

Genre: Informational article, including a related video

Length: 350 words

Synopsis: You don't hear much about poisonous fish, but there are actually more poisonous fish in the world than venomous snakes. These fish usually release their venom through spines on their fins and tails. If you step on them or brush up against them, watch out! You're in for a painful - and sometimes deadly - surprise.

Citation: Kleinman, E. (2013). "Poisonous fish: blow fish, stingrays, rabbit fish, stonefish". Retrieved from <http://easyscienceforkids.com/all-about-poisonous-fish/>

Cost/Access: Free online: <http://easyscienceforkids.com/all-about-poisonous-fish/>

Recommended Student Activities: Picture of Knowledge

680L "The Sting and Stab Gang"

Author: Deborah Churchman

Genre: Article

Length: 1158 words

Synopsis: Short informational texts about nine different poisonous sea creatures.

Citation: Churchman, D. (2004) "The Sting and Stab Gang." Ranger Rick, July 2004, Vol. 38 Issue 7, p32-37. Retrieved

from <http://search.ebscohost.com/login.aspx?direct=true&db=prh&AN=13655655&site=srck5-live>

Cost/Access: EBSCO database.

Recommended Student Activities: Quiz Maker

N/A "USA Spider Identification Chart"

Author: Fumapest Group

Genre: Website

Length: One page

Synopsis: Short informational texts about twelve poisonous spiders in America. Includes photos of each, venom toxicity, identifying features, and habitat. Treatment suggestions are offered, as well.

Citation: Fumapest Group. (1995-2007). "USA Spider Identification Chart." Retrieved from <http://www.termite.com/spider-identification.html>

Cost/Access: Free online: <http://www.termite.com/spider-identification.html>

Recommended Student Activities: Compare/Contrast

1000L *Seymour Simon's Top 50 Questions Reader: Poisonous Animals*

Author: Seymour Simon

Genre: Informational Text: Question and answer structure.

Length: 32 pages

Synopsis: This book presents questions and answers about a variety of poisonous animals including chapters on snakes, spiders, scorpions, insects, reptiles, and amphibians, and under the sea.

Citation: Simon, S. (2007). *Poisonous animals*. New York: Scholastic.

Cost/Access: \$2.91

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.

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 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](#).)
- 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.

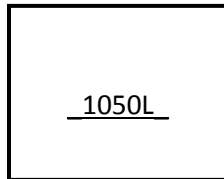
Repeat steps one through four with each resource in the text set as appropriate.

Text Complexity Guide

“Poisonous Fish: Blow Fish, Stingrays, Rabbit Fish, Stonefish” by Eileen Kleinman

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.

<p>The purpose of this article is to call attention to the fact that poisonous creatures live in the water, not only on land.</p>	<p>The structure is supportive in that it is clearly organized into different types of sections. These include Fun Facts, Vocabulary, “Learn More,” a video, and a short Q & A. The bullet-point structure breaks up the text making it more manageable for students who have difficulty sustaining their attention.</p>
Meaning/Purpose	Structure
<p>This is a fairly short text, but it contains some advanced vocabulary. Some of the vocabulary is defined in a separate section, and some will be familiar from other texts in the expert pack. Some will be new and require more support.</p>	<p>As the fifth text in the expert pack, students should be familiar with many of the concepts and vocabulary having already read about similar animals in previous texts.</p>
Language	Knowledge Demands

3. Reader and Task Considerations

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

- The vocabulary is the most challenging aspect of this text. Students will need to use the glossary within the article to support comprehension. Many of the words can be supported with a discussion of the text. Many of the words can be fast-mapped in order to facilitate fluent reading.

- Part of the challenge of the structure is that some sections simply list facts about different kinds of fish. It may be difficult for students to participate in cohesive activities, as a result. Students may need additional scaffolding as a result.
- Encouraging students to make connections to other texts in this expert pack could support and deepen understanding.

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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

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

Title	Write, Draw, or List	
	New and important learning about the topic	How does this resource add to what I learned already?
<u>Packed with Poison!</u> <u>Deadly Animal</u> <u>Defenses</u>	Animals that are poisonous and venomous are harmful to their prey and humans. They may attack because they feel threatened or because they are defending their territory.	This book introduced to me the idea of poisonous and venomous animals, and why they use their toxic defenses.
"The Venom Doctor"	Venom can be helpful as well as being harmful. Some medicine has been discovered because of research done on venom.	This article shows me that venom can be helpful as well as harmful.
"Toxic"	Some animals are venomous, some are poisonous, and some are both. All of these animals transmit toxins by injecting or secreting them.	This cartoon teaches me the difference between venomous and poisonous. It also teaches me about

		toxins and how they can be delivered.
<u>The World's Deadliest Creatures, Powerful and Poisonous</u>	Animals have various ways of attacking their victims with different outcomes.	This book goes in depth with more animals and how different specific animals are dangerous to their prey.
"Poisonous Fish: Blowfish, Stingrays, Rabbit Fish, Stonefish"	There are many poisonous creatures that live in the oceans and seas. They each defend themselves in specific ways.	This article shows me that fish and other sea creatures can be poisonous too.
"The Sting and Stab Gang"	Many animals don't bother humans. They use their venom and poison as ways to protect themselves and catch food.	This article builds on what I have already learned about poisonous sea creatures and shows me some new ones.
"The U.S.A. Spider Identification Chart"	There are 12 spiders in America that are venomous. They each cause varying degrees of illness. They have specific physical attributes and habitats.	This article shows me how twelve spiders' venoms can affect animals and humans, what they look like, and their habitats.
<u>Seymour Simon's Top 50 Questions Reader: Poisonous Animals</u>	There are many different creatures around the world that have different ways of attacking their prey. These animals use poison and venom as protection and as a way to retrieve food.	This book answered many questions that the other resources were not able to. It was able to provide specific information about several types of poisonous animals.

2. Rolling Vocabulary: "Sensational Six"

- Read each resource then determine the six words from each text 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	Six Vocabulary Words & Sentences
<p><u>Packed with Poison! Deadly Animal Defenses</u></p>	<p>Words: predators, prey, protection, poison, poison gland, venomous animals</p> <p>Sentences:</p> <ol style="list-style-type: none"> 1. Cobras are predators because they hunt other animals for food. 2. The small fish that swam away from the stingray was the stingray’s prey. 3. The spider bit the person for its protection. 4. The snake injected poison into the animal as it was biting it. 5. Some predators store venom in their poison gland to use it when the animal feels threatened. 6. Venomous animals have fangs, tentacles, stingers, and spurs for their protection and to attack prey.
<p>“The Venom Doctor”</p>	<p>Words: toxin, venomous, venom, medicine, extract, hazardous</p> <p>Sentences:</p> <ol style="list-style-type: none"> 1. Toxins from animals have the power to both harm and heal. 2. Fry travels around the world seeking venomous animals. 3. Venom is a toxic substance that must be injected into a victim in order to cause illness or damage. 4. Venoms can be useful in developing medicines to help treat people. 5. Fry extracts some of the venom from animals to study it. 6. Fry’s work can be hazardous and he has suffered snakebites, broken bones and a scorpion sting that nearly killed him, but he does it to study the effects of venoms and help people.
<p>“Toxic”</p>	<p>Words: poisonous, toxin, venomous, inject, secrete, mammals</p> <p>Sentences:</p> <ol style="list-style-type: none"> 1. Eek! A poisonous snake! The poisonous snake bit me! 2. The toxin delivery method is completely different. A toxin can make you sick. 3. Venomous animals inject toxins. A venomous animal can inject its toxin into another animal. 4. I just secrete them. The frog secretes a toxin through its skin. 5. And mammals can be venomous. Mammals are warm blooded and don’t lay eggs.

<p><u>The World’s Deadliest Creatures, Powerful and Poisonous</u></p>	<p>Words: deadly creature, powerful, poisonous, attack, carnivores, abdomen</p> <p>Sentences:</p> <ol style="list-style-type: none"> 1. There are many deadly creatures in the world. 2. Some predatory animals are powerful enough to scare animals; other animals are prey for those creatures. 3. Not all poisonous creatures want to kill other animals, some want to defend their territory. 4. Different poisonous and venomous animals attack using different methods; they can use stingers, spurs, and tentacles. 5. Carnivores use their poison and venom to hunt and eat prey. 6. Many insects will store their venom in their abdomen.
<p>“Poisonous Fish: Blowfish, Stingrays, Rabbit Fish, Stonefish”</p>	<p>Words: spines, poisonous, venom, toxic, fatal, sting</p> <p>Sentences:</p> <ol style="list-style-type: none"> 1. Pufferfish are covered with toxic spines which stick out when it’s scared. 2. Stingrays have poisonous barbed spines in their tails. 3. Harmful fish usually release their venom through barbs on their fins and tails. 4. The spines are toxic, but poison can be released in other ways, too. 5. Stings from these creatures can be painful or even fatal. 6. If you step on it, it can cause a nasty sting.
<p>“The Sting and Stab Gang”</p>	<p>Words: venom, injected, sting, stab, spines, prey</p> <p>Sentences:</p> <ol style="list-style-type: none"> 1. These animals have special kinds of poisonous chemicals called venom. 2. Venom is a poison that always injected - as when medicine is delivered with a needle. 3. Some creatures only give a mild sting, but others can be deadly. 4. The lionfish has venomous spines on the tips of its fins that it will stab into you if you are bothering it. 5. The scorpion-fish has spines on its back fins that are full of venom. 6. Most of these animals use their venom to stun or kill their prey so they can eat them.
<p>“The U.S.A. Spider Identification Chart”</p>	<p>Words: venomous, habitat, toxicity, procedures, cutaneous, necrosis</p> <p>Sentences:</p> <ol style="list-style-type: none"> 1. This chart shows venomous and dangerous spiders most commonly found in homes, their habitat areas, venom toxicity and spider bite first aid procedures.

	2.The brown recluse venom can cause significant cutaneous injury with tissue loss and necrosis .
<u>Seymour Simon’s Top 50 Questions Reader: Poisonous Animals</u>	Words: poisonous, venomous, inject, fangs, anti-venom, venom, Sentences: 1. Poisonous animals are animals that inject poison that is harmful to the body. 2. A venomous animal will bite or sting you and bad things can happen to the body. 3. Animals will inject a human or other animal by biting or stinging. 4. Venomous animals have fangs use for biting with a tube inside where the venom is kept. 5. When humans are injected with venom, their body requires anti-venom to protect from the harmful effects of the animal’s venom. 6. Venom is the liquid that is injected from a venomous animal.
Sensational Six	Poison, Venom, Poisonous, Venomous, Toxin, Toxic
Summary: Some animals are poisonous , and some are venomous . Both produce toxins , but deliver them in different ways. Some inject venom , and some secrete poison . Both types can be toxic to other animals and humans.	

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 “Venom Doctor” and “Poisonous Fish”)

- Take a paper and fold it 2 times: once across and once top to bottom so that it is divided into 4 quadrants.
- Draw a square, circle, triangle, and question mark in the top left corner of each quadrant.
- Write!

Square: What is one thing you read that is interesting to you?

Triangle: What is one thing 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 the selection and talk to each other about what you put in each quadrant.

2. **Quiz Maker** (Recommended for *World's Deadliest Creatures* and "The Sting and Stab Gang")

- 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 your answers for each question.
- Include where you find the answer in the resource (page number and/or paragraph).

Question	Answer	Paragraph/Page Number
1.		
2.		
3.		

3. **Wonderings** (Recommended for *Packed with Poison* and *Seymour Simon's 50 Questions*).

- On the left, track things you don't understand from the article as you read.
- On the right, list some things you still wonder about this topic.

I'm a little confused about...	This made me wonder...

4. **Pop Quiz** (Recommended for "Toxic")

- Answer the following questions:

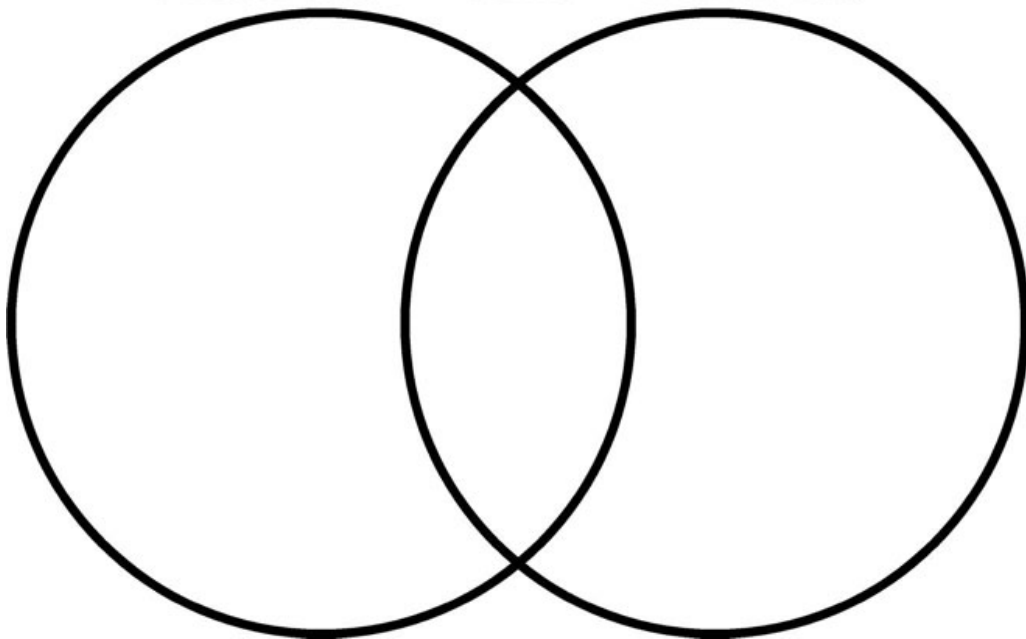
Question	Possible Answer
1. How does a <i>poisonous</i> animal deliver its toxin?	It secretes it through its body.
2. How does a <i>venomous</i> animal deliver its toxin?	It injects it into its victim.
3. The cartoon says that a bird can be poisonous? Explain how this is true.	It can be poisonous because it secretes the toxin through its body, just like the frog said it does.

5. **Venn Diagram** (Recommended for “USA Spider Identification” chart)

- Choose two animals from the source to include in the Venn Diagram.
- List at least 2 similarities and 3 differences for each animal.

VENN DIAGRAM

Different* *Same* *Different



Expert Pack: Poisonous Animals

Eva G. Simmons Elementary, Clark County School District, NV

Grade: 4

Date: August 2015

Expert Pack Glossary

Top 50 Questions Poisonous Creatures

<i>Word</i>	<i>Student-Friendly Definition</i>
poison	Poison is something that is harmful to eat or take in. If an animal injects you with poison, you could have to go to the hospital.
venom	Venom is a type of poison that is produced inside of the body of an animal. Snakes produce venom to protect themselves from predators.
poisonous	Poisonous means animals that use poison as a defense mechanism. Poisonous spiders attack when they feel threatened.
venomous	Venomous means a type of animal that injects venom into its prey. Snakes are venomous animals.
fangs	Fangs are a special pair of hollow teeth with tubes inside. A snake uses its fangs to inject the venom.
victim	A victim is the animal that was attacked with the venom or poison. A person that is injected with poison or venom is considered the victim.
prey	Prey is an animal that predators attack. When a snake attacks a mouse, the mouse is considered prey.
predator	A predator is the poisonous or venomous animal that usually attacks. Venomous and poisonous animals are considered predators when they are hunting for food.
Interlocking Scales	Interlocking scales are scales at the end of the rattlesnake's tail. When in motion, the rattle sound is produced. When Sarah heard the sound of a rattle while hiking, she knew the snake must have had interlocking scales.
elapid	The elapid is the family of snakes that include cobras, sea snakes, and mambas. The elapid family contains some of the deadliest snakes in the world.
anti-venom	Anti-venom is a fluid that is injected to people to protect them against the harmful effects of the venom. Michael was injected with anti-venom at the hospital when the doctor found out he was bit by a rattlesnake.
hatchlings	Hatchlings are baby snakes. The hatchlings were tiny replicas of their mother.
poison glands	Poison glands are pockets inside poisonous creatures where poison is stored. After the snake bit the victim, its poisonous glands were empty.

stalking	Stalking means following prey closely before killing. Because the snake was hungry, it was stalking the mouse hole.
barb	A barb is a hook or jagged edge on the end of a stinger. The stingray's barb stuck into the fish so its prey could not escape.

Packed with Poison: Deadly Animal Defenses

<i>Word</i>	<i>Student-Friendly Definition</i>
blisters	Blisters are sores on the skin in the area where venom was injected.
sacs	Sacs are places in a snake's mouth that store a poisonous liquid called venom.
venomous animals	Venomous creatures are creatures that inject venom into other animals.
predators	Predators are hunting animals.
fugu	Fugu is the cooked puffer fish. If the dish is not prepared carefully and the poison is not removed, the dish can cause death to humans.
ribs	Ribs are the area near a snake's head. They flare up when they feel they are endangered.
tentacle	A flexible limb used for moving around and grasping things. The octopus has eight tentacles.
dagger	A dagger is a slender knife with a very sharp point used for stabbing things. Scuba divers often carry a dagger to protect themselves.
stinger	A stinger is a sharp, hollow tube attached to an animal. Bees have a short stinger which they stab into the skin of humans or animals to deliver poison.
stalker	A stalker carefully hunts or pursues another animal. The lioness was a stalker when she silently hid in the grass, watching the gazelle, waiting to pounce.

The World's Deadliest Creatures

<i>Word</i>	<i>Student-Friendly Definition</i>
venom sac	A venom sac is a place in a snake's or insect's body (usually near the mouth or in the abdomen) where venom is stored. When the cobra bit his prey, the venom sacs emptied the venom into the animal.
swarm	A swarm is a large group of insects. After the bird flew into the beehive, a swarm of bees began to fly out.

paralyze	Paralyze means to immobilize a body. This means that part or all of the body is unable to move. After the rodent was bit by the spider, it lay on the ground paralyzed.
abdomen	The abdomen is the center section of an insect. Many insects hold their venom inside of their abdomen.
carnivores	Carnivores are meat-eating animals. Some snakes in the jungle are carnivores.

“Toxic” Cartoon

<i>Word</i>	<i>Student-Friendly Definition</i>
poisonous	Poisonous means animals that use poison as a defense mechanism. The poisonous snake uses his poison to defend himself against enemies.
venomous	Venomous means a type of animal that injects venom into its prey. The venomous insect injects its poison into animals with a stinger.
toxin	A toxin is a poison made by plants and animals. Toxins can make people sick. The frog’s toxin caused me to develop a rash.
delivery method	The delivery method is the way in which an animal gives their poison or venom to another animal or human. The cobra’s delivery method is to bite their victim with their fangs.
inject	To pierce the skin with a sharp object, like a fang or claw, and then deliver a substance through that sharp object into the body. The venomous insect injects its poison into animals with a stinger.
secrete	When an animal secretes a poison, it oozes out of its skin through tiny holes. Touching some frogs can make you sick because of the poison they secrete.
mammals	Mammals are any warm-blooded vertebrate having skin more or less covered with hair. Their young are born alive and nourished with milk. Humans and horses are both mammals.

“USA Spider Identification Chart”

<i>Word</i>	<i>Student-Friendly Definition</i>
venomous	Venomous means a type of animal that injects venom into its prey. When I saw the redness and swelling, I knew the spider that bit me was venomous.
habitat	An animal’s habitat is the region where it naturally grows or lives. The Grass Spider’s habitat is in tall grass.
venom toxicity	The degree to which a venom may harm an animal or human. The venom toxicity of the Black Widow Spider is quite high; it can kill small children.
cutaneous	Cutaneous means on the skin of an animal or human. The injury was cutaneous; it did not pierce the skin, but only scratched it.
tissue loss	Tissue loss is when skin, organ, or muscle dies away. Some spider venom can cause tissue loss, creating a hole in your skin.

necrosis	Necrosis is the death or decay of skin, organ, or muscle. The Brown Recluse spider's bite can cause necrosis on your finger, causing it to die and fall off.
predominance	Predominance is when something happens the most, or stands out the most. The predominance of leaf-eating moths in the south make them a danger to the local trees.
abdomen	The abdomen of the spider is the section of its body farthest away from its head. It is usually the larger section of its body. The Black Widow spider has an hourglass shape on its abdomen, making it easy to recognize.
inflict	To inflict is to cause something harmful. Spider bites can inflict severe pain.
fatal	Fatal means it causes death. Some spider bites are fatal unless action is quickly taken to save the victim's life.
anti-venom	Anti-venom is a fluid that is injected into people to protect them against the harmful effects of the venom. The doctor gave me a shot of anti-venom which saved my life after the spider bite.
nervous system	The nervous system is the part of your body that controls everything you do, including breathing, walking, thinking, and feeling. Some venoms can effect your nervous system so badly that they make you unable to speak or walk.
systemic envenomisation	Systemic = the whole body. Envenomisation = venom has entered the body. Systemic envenomisation means that venom has spread throughout the whole body. Some spider venoms are so strong that systemic envenomisation can happen in a matter of minutes.
pyrexia	Pyrexia simply means the temperature of your body has risen. In other words, you have a fever. The spider bite caused pyrexia, so we cooled the patient down with an ice bath.
hypertension	Hypertension is abnormally high blood pressure. The man had hypertension, so he took medication to normalize his blood pressure.
ulceration	When your skin has ulceration, that means there are open sores on your skin. The spider bite on her arm caused a large ulceration, which had to be disinfected and stitched closed.
elongated	When something is elongated, it is long. The spider has an elongated body; two inches long.
lethal	When something is lethal, it can cause death. The venom was lethal and killed the man.
giddiness	Giddiness is feeling dizzy and lightheaded. After the attack, the woman felt giddy and had to sit down.
secluded	When something is secluded, it is not visited by many people or animals, is quiet, and private. Many spiders live in secluded habitats that are hard to find because they are so hidden.
provoked	If a spider is provoked, that means something else made it act a certain way. Nobody was surprised when the boy was bitten, because he had provoked the spider with a sharp stick.
burrow	A burrow is a small hole or tunnel dug by an animal. It is its home. The spider dug a hole in the ground under a log to create its burrow.
harassed	If a spider is harassed, that means something is continuously bothering it. The boy was bitten because he kept harassing the spider.

susceptible	When an animal is susceptible to something, that means it is likely to be affected by something. Humans are not susceptible to this spider’s venom, but small rodents are.
beneficial	Beneficial things are things that are good for us, or things that will affect us in a positive way. It is beneficial to have certain types of spiders in your garden, because they eat the bugs that will harm your plants.

“The Venom Doctor”

<i>Word</i>	<i>Student-Friendly Definition</i>
extract	To extract means to take something out of something else.
hazardous	Hazardous means dangerous.
medicine	Medicine is a substance given to relieve or cure an illness.
toxin	Toxin is a poison made by plants and animals. Toxins make people sick.
venom	Venom is a type of poison that is produced inside of the body of an animal.
venomous	Venomous describes an animal that injects venom into its prey.

“Poisonous Fish: Blowfish, Stingrays, Rabbit Fish, Stonefish”

<i>Word</i>	<i>Student-Friendly Definition</i>
fatal	Something that is fatal causes death.
poisonous	Poisonous means animals that use poison as a defense mechanism.
spines	Stiff, pointed spines protrude from a plant or animal.
sting	A sting is a sharp, physical wound or pain.
toxic	A toxic substance contains toxin or poison and it can be harmful to an animal or person.
venom	Venom is a type of poison that is produced inside of the body of an animal.

“The Sting and Stab Gang”

<i>Word</i>	<i>Student-Friendly Definition</i>
injected	Injected means to have venom shot into a victim or prey through a bite or sting.
prey	Prey is an animal that predators attack.
spines	Stiff, pointed spines protrude from a plant or animal.
stab	To stab means to thrust something sharp such as a spine, stinger, or tooth, into a victim.
sting	A sting is a sharp, physical wound or pain.
venom	Venom is a type of poison that is produced inside of the body of an animal.