Expert Pack: Desert Animals

Lexile Range: 870-1280

Topic/Subject: Desert Animals

Texts/Resources

Books

1. Around One Cactus: Owls, Bats, and Leaping Rats by Anthony D. Fredericks

Articles

- 1. "Armadillo"
- 2. "Desert"
- 3. "Roadrunner"
- 4. "Tortoise"

Video

1. The Coyote

Rationale and Suggested Sequence for Reading

The set starts with an introductory article, "Desert," to explain what the desert is. This will provide the students with a background to the various elements within the desert. The article will provide a rationale as to whether the animals learned later in the text set fit into the desert environment. The next resources, The Coyote, "Roadrunner," "Tortoise," and "Armadillo," focus student learning specifically on desert animals. Students continue exploring specific desert animals through these various forms of text. The video, articles, and following text allow students to engage in knowledge development around a variety of desert animals. While the complexity of resources within this text set varies, the structure developed first engages students in the topic, and then narrows their focus into specific animals. As the text set beings to wrap up, the structure allows students to direct their own learning around desert animals of their choice if the desire to further extend this set is needed.

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

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.
- 10. Read and comprehend complex literary and informational texts independently and proficiently.

Annotated Bibliography

920L "Desert"

Author: Rogerson, Robert J. Genre: Informational Article

Length: 5 pages

Synopsis: This informational article introduces students to what a desert is, the climate in a

desert and the plants and animals that are able to survive in the desert.

Citation: Rogerson, R. J. (2016). Desert. In World Book student. Retrieved November 20, 2016,

from http://worldbookonline.com/student/article?id=ar155700.

Recommended Student Activities: A Picture of Knowledge

N/A The Coyote

Author: Desert.USA.com

Genre: Video

Length: 1:22 minutes

Synopsis: This short video explains how coyotes hunt and adapt their diet, hunting, breeding and habits to survive. This video gives students a closer look at the coyote and exposes them to the website where they can explore other videos about desert animals.

Citation: (n.d.). Retrieved February 27, 2015, from

http://www.desertusa.com/video_pages/coyote_movie.html.

Recommended Student Activities: Coyote Note Taker

870L "Roadrunner"

Author: Vehrencamp, Sandra L.

Genre: Information Article

Length: 2 pages

Synopsis: This informational article shares information on the roadrunner. It explains the habitat

it lives in and what it needs to survive, its diet, and the features of the roadrunner.

Citation: Vehrencamp, S. L. (2016). Roadrunner. In World Book student. Retrieved November 20,

2016 from http://worldbookonline.com/student/article?id=ar471100#tab=homepage.

Recommended Student Activities: Quizmaker

1030L "Tortoise"

Author: Vitt, Laurie J.

Genre: Information Article

Length: 2 pages

Synopsis: This informational article shares information on the tortoise. It explains the habitat it

lives in and what it needs to survive, its diet, and the features of the tortoise.

Citation: Vitt, L. J. (2016). Tortoise. In World Book student. Retrieved November 20, 2016, from

http://worldbookonline.com/student/article?id=ar562080#tab=homepage.

Recommended Student Activities: Quizmaker

1020L "Armadillo"

Author: Duane A. Schlitter Genre: Information Article

Length: 2 pages

Synopsis: This informational article shares information on the armadillo. It explains the habitat it

lives in and what it needs to survive, its diet, and the features of the armadillo.

Citation: Schlitter, D. A. (2016). Armadillo. In World Book student. Retrieved from

http://worldbookonline.com/student/article?id=ar030440

Recommended Student Activities: Pop Quiz

1280L Around One Cactus: Owls, Bats, and Leaping Rats

Author: Anthony D. Fredericks

Genre: Fiction Length: 32 pages

Synopsis: This book is about desert animals with flair. A boy walks up to an impressive saguaro cactus and wonders who could be living on this arid ground? As night falls, he walks away. And then the place comes alive! It is a haven for creatures in a waterless land. Field Notes at the end of the book describe the animals in detail and include unusual facts.

Citation: Fredericks, A. (2003). Around One Cactus: Owls, Bats and Leaping Rats. Nevada

City, CA: Dawn Publications.

Recommended Student Activities: Glossary Facts

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:
 - o Use mentor texts about which students can pattern their writing.
 - o Allow them to write collaboratively.
 - o Show students visual resources as prompts, etc.
 - o 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: Desert Animals

Learning Worth Remembering

<u>Cumulative Activities</u> – 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 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 or list what you learned from the text about (topic).
- Then write or list how this new resource added to what you learned from the last resource(s).

Sample Student Response

Title	Write or List		
New and important learning about the		How does this resource add to what I learned already?	
1. "Desert"	Deserts are one of the hottest places in the world and it makes for hard living conditions. There are specific adaptations needed in order to survive for plants, animals and humans in the desert. Most desert animals avoid the day light heat and come out during the night.		
2. The Coyote	The coyote runs swiftly to catch its prey. It will change its diet and hunting strategies in order to survive. They will eat seeds, fruit and other small animals. If a coyote can't find food in its area it will move on to a new location in order to survive.	·	

3.	"Roadrunner"	at home on the ground. They eat insects, lizards, snakes, mice, baby birds, and gophers. The birds kill their	Roadrunners can survive in the desert because the prey that they most like is what live in the desert. They can adapt to the hot climate of the desert.
4.	"Tortoise"	into the shell for protection from predators. Raccoons, foxes, and other predatory animals feed on tortoise eggs and young tortoises. Tortoises that survive the first several years can live an	They are able to adapt to the
5.	"Armadillo"	world with body armor. The armadillo's hard-shelled exterior helps protect it from predators. Armadillos hate cold	Armadillos survive in the desert because they like the temperature and have a hard shell to protect them from predators.
6.	Around One Cactus: Owls, Rats, and Leaping Bats	The saguaro cactus provides food and shelter for some desert animals. An owl builds its nest inside the cactus. Birds and bats drink nectar from the cactus's flowers.	Desert animals find a way to survive in the desert by using the saguaro cactus.

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.

Title	Six Vocabulary Words & Sentences
"Desert"	Words: barren, desert, precipitation, climate, adaptations, dry
	 The desert is <u>barren</u> and many people do not live there.
	2. In the <u>desert</u> , it is hot and there is not much rainfall.
	3. The desert does not get much <u>precipitation</u> every year.
	4. The <u>climate</u> can vary in the desert from really hot during the day to cool at night.
	5. Many animals and plants make <u>adaptations</u> in the desert in order to survive.
	6. The desert is very <u>dry</u> and it does not get much moisture.
The Coyote	Words: swiftly, prey, strategies, survive, breed, feed
	1. The coyote runs <u>swiftly</u> .
	2. The coyote catches its <u>prey</u> easily.
	3. To survive, a coyote can changes its hunting strategies.
	4. Coyotes survive best by living in a warm climate.
	5. The coyotes can change their breeding habits.
	6. Coyotes <u>feed</u> off of fruit, animals and small pets.
"Roadrunner"	Words: roadrunner, brush, cacti, nests, eggs, swift
	1. A <u>roadrunner</u> can be found racing down the road past cars.
	2. Roadrunners like to live in deserts because of the <u>brush</u> .
	3. When roadrunners lay their eggs, they like to lay them in the cacti.
	4. Roadrunners build <u>nests</u> to lay their eggs in.
	5. A roadrunner lays <u>eggs</u> .
	6. A roadrunner is a <u>swift</u> -moving animal that is found in warm climates.
"Tortoise"	Words: tortoise, protection, predators, burrow, habitats, eggs
	1. A tortoise lives in the desert and can live up until 100 years.
	2. A tortoise uses its shell for <u>protection</u> .
	3. Predators like to eat the eggs of the tortoise.
	4. A tortoise lives in a <u>burrow</u> in the hot desert to stay cool.
	5. Tortoises can live in many habitats, the desert being one of them.
	6. Tortoises protect their <u>eggs</u> from predators.
"Armadillo"	Words: armadillo, armor, mammal, self-defense, protect, jointed
	1. An <u>armadillo</u> is not related to a tortoise even though it has a hard shell.
	2. The armadillo uses its <u>armor</u> to protect them from predators.
	3. An armadillo is a <u>mammal</u> .
	4. The armadillo cannot bite for self-defense.
	5. An armadillo can <u>protect</u> itself by rolling up in a ball.

	6. The jointed back of an armadillo allows them to roll into a tight ball.	
Around One Cactus: Owl Bats and Leaping Rats	 Words: adapt, arid, haven, observed, prey, saguaro cactus The animals and cactus all <u>adapt</u> to the desert environment. It's really hard for the animals and plants to live in the <u>arid</u> environment of the desert The cactus is a <u>haven</u> for the animals because it provides shelter and food. The little boy <u>observed</u> the giant cactus. Some animals <u>prey</u> at night and sleep in the day. The <u>saguaro cactus</u> is home to many animals. 	
Sensational Six	Words: adapt, habitat, precipitation, protect, prey, burrow The desert habitat is hot, lacks precipitation, and is extremely dry. There are many different species of animals that live in the desert. They are able to live in this hot climate because they are able to adapt for survival. Most of these animals build burrows to stay cool or hide under the shelter of a cactus to protect them from the hot sun. The desert animals mostly sleep during the day and come out at night to hunt for prey, when the weather is cooler.	

Student Copy

1. Rolling Knowledge Journal

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- Then write or list how this new resource added to what you learned from the last resource(s).

Sample Response

	Write or List		
Title	New and important learning about the topic	How does this resource add to what I learned already?	
l			

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.
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- After reading all the selections in the Expert Pack, go back and review your words.
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Sample Response

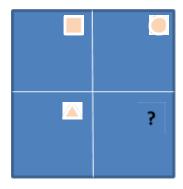
Title:	Six Vocabulary Words & Sentences		
	•		
Sensational Six	Words:		

Learning Worth Remembering

<u>Singular Activities</u> – 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: "Desert")

- 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: "Tortoise" and "Roadrunner")
 - Make a list of # 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

3. Wonderings (Recommended for "Armadillo")

I'm a little 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.	
I am confused about or do not understand	I wonder or would like to learn more about	

4. Pop Quiz (Recommended for "Armadillo")

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

Question	Possible Answer	
An armadillo has strong claws. Why?	The claws are used to dig burrow and to search for	
	food.	

			•	
5.	Glossary Facts (Recommended	for "Around One (Cactus: Owl, Rat	s, and Leaping Bats")
	After reading the book, choose	e 5 animals from th	e glossary and v	write one fact for each.
	Animal		Fact	
6.	Notetaker (Recommended for	The Coyote video)		
				n addition to The Coyote. While east two facts about each animal.
	Coyote	Animal o	of Choice	Animal of Choice

Expert Pack: Desert Animals

Expert Pack Glossary

"Desert"

Word	Student Friendly Definition	
barren	Little to no plant life.	
	The ground was barren after the winter snow melted.	
evaporation	To remove some of the water from (as by heating).	
	After I boiled the water, I noticed that some of it evaporated.	
thrive	To do well or grow well.	
	My plant thrived after I gave it lots of water and sun.	
poles	Either end of an axis of a globe and especially of the earth's axis.	
	The world has a North pole and a South pole.	
restricts	To place under limit, as to use.	
	The child was restricted from the pool because it was too deep.	
oasis	A fertile or green spot in a desert.	
	There was a small oasis out in the middle of the desert.	
irrigated	To supply with water by artificial means.	
	There was no way that water could get to the field for the crops so the	
	farmers had to irrigate.	
insulation	The state of being insulated.	
	Our house had insulation in the ceilings to keep it warm.	
humid	Damp, moist.	
	The weather is sometimes humid in the summer after it rains.	
sediments	Material (as stones and sand) deposited by water, wind, or glaciers.	
	The sediments got in my shoe when I was climbing the trail.	
fertile	Having the power to reproduce or helping in reproduction and growth.	
	The fertile soil of the farm states helped the crops grow.	

"The Coyote"

Word	Student Friendly Definition	
swiftly	Swiftly means moving very fast.	
	The girl completed her work swiftly so she could go to recess.	
prey	Prey is an animal that is hunted or killed by another animal for food.	
	The mouse hides to avoid being the snake's prey.	
strategies	Strategies are careful plans or methods for achieving a particular goal.	
	The boy has a great strategy for solving his math problem.	

"Roadrunners"

Word	Student Friendly Definition
habit	Doing something without thinking about it because one has done it so
	often.
	I had a habit of tapping my fingers when I was scared or nervous.
species	A class of things of the same kind.
	There are many species of fish.
sturdy	Firmly built or made.
	The three little pigs built a sturdy house of bricks.
crest	A showy growth (as of flesh or feathers) on the head of an animal.
	The rooster's crest had feathers shooting everywhere.
incubate	To sit on eggs to hatch them by warmth.
	Some people incubate eggs in their house and watch the chickens hatch.

"Tortoise"

Word	Student Friendly Definition
domed	To swell upward or outward.
	The balloon domed up as we blew it.
fend	To keep off or away.
	Sometimes I try to fend off my little sister so she doesn't get into my
	room.
captivity	Held so something or someone can't escape.
	The turtle was locked up in a cage and not allowed to go into captivity.

"Armadillo"

Word	Student Friendly Definition
quadruplets	One of four children born at the same time from the same pregnancy. It is very rare for a human to have quadruplets.
leprosy	A disease occurring in tropical and subtropical regions; characterized by inflamed nodules beneath the skin and wasting of body parts. Leprosy is very rare in humans but can be very dangerous.

Around One Cactus: Owls, Bats, and Leaping Rats

Word	Student Friendly Definition
majesty	A great and impressively beautiful quality.
	The students' writing was majesty.
waterless	To have no water.
	The remote desert was waterless.
lofty	To be tall, or high off the ground.
	The cactus was lofty.
incredible	Hard to believe.
	The ending of that story was incredible!
noble	To belong to a high social class.
	The prince and princess are noble individuals.
search	To look for something.
	The fennec fox was searching for food in the desert.
stinging	To have a sharp pain.
	The cut on my leg was stinging.
topic	A subject.
	The topic of our research will be desert animals.
unseen	To not be seen.
	The coyote has been unseen for several months.
survivors	People or animals who live after an event where others have died.
	Many animals were survivors during the cold winter months.
environment	The surrounding things, conditions, or influences.
	The desert is a very active environment in the evening.
river	A natural stream of water of fairly large size flowing in a definite course.
	The river was a source of water for the owls to drink from.
origin	Something from which anything arises or is derived.
	We will follow the river to its origin.
relationship	A connection, association, or involvement.
	The fox and a gerbil do not have a good relationship.
border	Part or edge of a surface or area that forms its outer boundary.
	The Sierra Mountains form a boarder around the valley.
behold	To look at or observe.
	I will behold the rattlesnake.
undesirable	Not desirable or attractive.
	In my mind, the desert is an undesirable place to live.
disgraceful	Shameful or dishonorable.
	The boy was acting disgraceful.
dew	Moisture condensed from the atmosphere, especially at night, and
	The state of the s

	deposited in the form of small drops upon any cool surface. There was
	dew on the flower petals this morning.
shifting	Shifting means to put (something) aside and replace it by another or
	others; change or exchange.
	The sand was shifting around on the desert flood.
preserve	To keep alive or in existence.
	I hope we can preserve the deserts natural habitat.
gripping	To hold the attention or interest intensely.
	The foxes hunt was gripping.
adapt	To change your behavior so that it is easier to live in a particular place
	or situation.
	The animals in the desert adapt to the dry conditions.
arid	Very dry or having very little rain or water.
	The arid desert gets very little rain.
haven	A place where you are protected from danger or trouble. The owl finds
	a haven in the cactus.
saguaro cactus	A giant cactus that can grow to 66 feet (20 m) in height and whose
	branches are shaped like candelabra, native to Mexico and the
	southwestern US.
	The saguaro cactus has reddish-purple fruit can be used for food and
	drink.
observe	To watch and sometimes also listen to (someone or something)
	carefully.
	The frog carefully observed the insect before eating it.
prey	An animal that is hunted or killed by another animal for food.
	The hawk will quickly swoop down to catch its prey.