**Digging Deeper: Learning about Animal Adaptations in the Mojave Desert**

 [MUSIC PLAYING]

TEACHER: OK, third grade. We are on page 326. And yesterday, we had a chance to look at this story with our partner. So this is going to be our second read today.

STUDENT: Do you want me to just use hers because [INAUDIBLE]?

TEACHER: Yes. No problems. OK, this is going to be our second read. So we're going to dive into it a little bit deeper. Yesterday, we found some words that we, maybe, didn't know. We got to take a look at the pictures, do a quick walk.

So today, we're going to be answering some questions working with our groups and learning a little bit more about the Mojave Desert. So, please, turn to page 326 where we have our essential question. Lad, could you please read that to us?

STUDENT: How do you animals adapt to challenges in their habitat? Read about how different animals in the Mojave Desert survive in the dry, hot place.

TEACHER: OK. So we took a look at this picture yesterday. All right? And let's think about it. What does it mean to adapt? What does it mean to adapt to something? OK, Maite, what does it mean to adapt?

STUDENT: To get used to.

TEACHER: To get used to? Very good. What else? Landon?

STUDENT: To survive.

TEACHER: To survive. So we're trying to figure out how are they going to survive something that's hard in their habitat. What's a habitat? What is our habitat, Michael?

STUDENT: It's a home.

TEACHER: Yeah, it's where somebody lives. Very good. And do all animals live in the same habitat?

STUDENTS: No.

TEACHER: No, they don't. OK, so while I'm reading this page 327 to you, I want you to follow along. OK? And I want you to be thinking about what do the living things in this desert have to overcome to survive. All right? So, please, follow along with me as I read this page to you.

Deserts are challenging places to live. They are often dry and often very hot. Each year, only a few inches of rain fall in the Mojave. It's North America's smallest desert. It lies mostly in parts of Southern California and Southern Nevada.

The Mojave has, both, mountains and valleys. It includes Death Valley, the lowest and hottest place in North America. On a car ride through the Mojave Desert, you may pass by many miles of bare, dusty earth, and scattered bushes.

However, on a morning hike, you can discover that a desert is a lively place. Birds sing. Lizards scurry after insects. Jack rabbits and roadrunners dash among the bushes and cactus plants. Hm. So by looking at that picture and listening to what I just read you, I want you to be thinking about what do living things in the desert have to overcome to survive. OK? I want your heads together. I want your bums up. I want you to whisper some ideas with your pods, please.

[INTERPOSING VOICES]

STUDENT: --may have to try to find water and food.

STUDENT: Getting food.

STUDENT: Oh, yeah. I said that.

STUDENT: Yeah.

STUDENT: Finding shelter.

STUDENT: Surviving.

STUDENT: Getting away from the heat.

STUDENT: Yeah, and predators.

STUDENT: Yeah.

STUDENT: Yeah. Surviving the heat.

STUDENT: Yeah.

STUDENT: Yeah.

STUDENT: Finding shade.

STUDENT: They have to adapt.

STUDENT: And finding shade.

STUDENT: Yeah.

STUDENT: Yeah.

STUDENT: And finding shelter, just like Dale said. And let's hope the predators don't get in the shelter or their homes.

STUDENT: It's habitats. It's habitats.

TEACHER: Did you guys come up with some things they're gonna have to overcome?

STUDENT: Yep.

STUDENT: Yeah.

TEACHER: What did you guys come up with?

STUDENT: They have to find water and find shade.

TEACHER: Yeah. Do you see a lot of water or shade in your pictures?

STUDENTS: No.

TEACHER: No.

STUDENT: [INAUDIBLE] away from there predators.

TEACHER: OK.

STUDENT: And then, they have to find a habitat.

TEACHER: Right. They're gonna have to find somewhere to live, aren't they? All right. Hocus pocus.

STUDENTS: Everybody focus!

TEACHER: Thank you. On your pockets, please. You guys had some great discussions. So what are some things that these animals are going to have to overcome to live in the desert? Justice, what did you come up with?

STUDENT: Roadrunners dash among the bushes, and cactus's, and plants.

TEACHER: OK, what paragraph are you in, Justice?

STUDENT: Second one.

TEACHER: The second paragraph. Can you please read that again?

STUDENT: Jack rabbits and roadrunners dash among the bushes, and cactus's, and plants.

TEACHER: OK. So what is that telling you? What are they going to have to overcome?

STUDENT: Hiding from their prey. No, no. Predators.

TEACHER: Oh, right. Right. Are there are a lot of places to hide in the desert?

STUDENT: Up in trees?

TEACHER: Are there a lot of trees in the desert?

STUDENTS: No.

STUDENT: No, not really.

TEACHER: Not really, is there? Do you see a lot of trees in that picture?

STUDENT: No.

TEACHER: OK. Yeah. All right. What else? I'm going to take one more. Yes?

STUDENT: They don't have a lot of shade.

TEACHER: They don't. So what does that mean?

STUDENT: They might hide between the bushes.

TEACHER: And why are they going to need shade? Go ahead, honey.

STUDENT: So they could survive?

TEACHER: Yeah. And what happens if they don't have shade? What's going to happen to them?

STUDENT: They might get really hot?

TEACHER: They're going to get really hot, aren't they? So they need a place to cool off. And does it look like, by looking at those pictures and what I read to you, that there is a lot of shade there?

STUDENTS: No.

TEACHER: Not a lot, especially if you're a big animal. OK. Let's go to page 327, the next page, please. You and your shoulder partner are going to be reading about a living place. And you're going to be talking about the reptiles. When you're done, I would like for you guys to be thinking about two things.

All right, kiddos, you ready? You guys are going to be thinking about how are some of the animals in this story alike, and how they're different. And I also want you to be thinking about, as we're reading, what's the text structure of the story? How is the author writing this story? And remember our text structure, our five different text structures, are up here if you need help. OK? All right. Go ahead and take a minute. Whisper read with your partner, please.

[CHATTER]

STUDENT: Although it is very dry in the Mojave, it is a living place or environment for many fascinating animals and plants. Over many years, they have changed [INAUDIBLE] adapted.

STUDENT: So they can live very well in a dry, hot environment. They do this in a different way. In the Mojave, you might see several kinds of lizards.

STUDENT: Compare and contrast because they're comparing--

STUDENT: The chuckwalla irregular--

STUDENT: And the [INAUDIBLE]. So the chuckwalla and the spiny lizard.

STUDENT: Yeah, spiky lizard.

STUDENT: Ooh, a hawk. This hawk looks out for food from the top of the [INAUDIBLE].

STUDENT: They both don't have natural body heat.

STUDENT: Yeah. And they're both cold-blooded. And they both are related. And they're both lizards. And the way they're different is because the spiny lizard is only a few inches long. And the chuckwalla can grow up two to three feet long.

STUDENT: And they both have claw?

STUDENT: They both, when they're predators come, [INAUDIBLE].

STUDENT: They both squeeze into rocks and puff their selves up?

TEACHER: Remember, kiddos, find your proof from the story.

STUDENT: Yeah.

STUDENT: But they both hide from predators?

STUDENT: Yes.

STUDENT: They both hide from their predators?

STUDENT: Yeah. And they [INAUDIBLE].

STUDENT: They're both small.

STUDENT: Yeah, they're both small.

TEACHER: All right. Here we go. I gave you guys a job. You have two questions up on the board to answer. So let's take a look at the first one. What text structure do you think this author is using to tell the story?

Now, remember, I can't just take an answer. I need proof. All right? So I want you to, please, prove it to me. So Jess, you've been dying to tell us. What structure did you and your partner come up with?

STUDENT: Me and Bella think it's compare and contrast because they're comparing the chuckwalla and the spiny lizard.

TEACHER: The spiny lizard? OK.

STUDENT: And they're saying that it's very different in many ways, and it's alike in a lot of ways because they're both reptiles.

TEACHER: Oh. So can you show us in the story? Can you tell us what paragraph it says that, please? What page? What paragraph?

STUDENT: On 328 in the first paragraph.

TEACHER: All right. Everybody go to 328, first paragraph, please.

STUDENT: They are all relate-- wait. Hang on. In the Mojave, you might see several kinds of lizards. They are all related. All lizards are reptiles. Reptiles all have the scaly skin. However, they are different in many ways. The desert spiny lizard, for example, is only a few inches long. Most of its food is insects.

TEACHER: OK. So that tells us about the spiny lizard, right? Now what does it tell us about the chuckwalla? How do we know that he's comparing and contrasting both?

STUDENT: On 329, the first paragraph. The chuckwalla is very different. It can grow to almost three feet long. This big lizard eats leaves, flowers, and fruit or of plants.

TEACHER: Interesting. Thank you, Jess. Did anybody have another idea about how this author wrote the story, what structure he used? Does anybody have something different? What are you thinking?

STUDENT: I think it's compare and contrast.

TEACHER: So you agree with Jess, compare and contrast? Did you have any other facts from the story why you think the author's using compare and contrast?

STUDENT: The spiny lizard is only a few inches long. And the chuckwalla is three feet long.

TEACHER: Right. So he's telling us this is what the spiny lizard looks like. This is what the chuckwalla looks like. OK, so does anybody think any other text structure? You think something else? What text structure do you think?

STUDENT: It's cause and effect but--

TEACHER: You think it's cause and effect, or do you think it's compare and contrast?

STUDENT: I mean, it's the first one.

TEACHER: Compare and contrast? OK.

STUDENT: But I have how they're different. This big lizard eats leaves, flowers, and fruit and of plants. And the spiny lizard, most of its food is insects.

TEACHER: Ooh, interesting. OK, so I want you to keep in the back of your mind that this author is using compare and contrast because we're going to see if he does it throughout the whole story. Everybody go to page 330.

STUDENTS: Getting water in the desert.

TEACHER: Please, quietly read that to yourself.

[WHISPERED CHATTER]

(WHISPERING) OK. [INAUDIBLE]. OK.

STUDENT: [INAUDIBLE] get some--

TEACHER: (WHISPERING) Justice, read quietly [INAUDIBLE].

There's a question on the board if you'd like to answer that or think about it in your mind when you're done reading.

[WHISPERED CHATTER]

All right. It looks like we're about done. Is anybody still reading? Who could tell me-- just a quick sentence-- what was this section about? All right. Let's get everybody. What was this section about? Stacia, what was this about?

STUDENT: It's about different animals trying to find water.

TEACHER: Water in the desert, right? Now, isn't that a challenge in the desert you guys said earlier?

STUDENT: Yeah.

TEACHER: Finding water. Why is that a challenge? Why, Gaby?

STUDENT: Because it's very dry in the Mojave Desert.

TEACHER: It is very dry in the Mojave Desert. Very good. So what are some ways these animals are able to find water? Parker?

STUDENT: They find it off of plants and rocks.

TEACHER: Interesting. Do you remember? Can you find us that part in the story where it says that? There's only one paragraph on page 330. So you're going to have to help us out a little bit.

STUDENT: Um.

STUDENT: (WHISPERING) They find water, right there.

STUDENT: They find water in different ways. They get some from tiny drops of dew that form overnight on plants or stones.

TEACHER: Ooh, great.

STUDENT: Their main source of water is the food they eat. Flower, seeds, and leaves contain water. The bodies of insects, scorpions, and other animals are all, at least, half water.

TEACHER: Wow. Very interesting, isn't it? OK. Is there another way that these animals-- thank you for sharing, Parker-- any way that these animals get water? Angela.

STUDENT: They can travel far.

TEACHER: Oh. Who travels far? Do all the animals travel far?

STUDENT: No.

TEACHER: No. Help us out here. Read it to us.

STUDENT: [INAUDIBLE] and other large mammals can travel a long distance for a drink.

TEACHER: Yeah.

STUDENT: So can some birds.

TEACHER: Interesting. So what is that author using right there? What is he telling us? That everybody does it the same way?

STUDENTS: No.

TEACHER: No. What's he telling us? Jess?

STUDENT: That their are lots of animals, and they can all travel. Like, they can all get water in their own ways.

TEACHER: Right. And is it all the same way that they get water? No. So once again, what style is that author using?

STUDENTS: Compare and contrast.

TEACHER: What is it?

STUDENTS: Compare and contrast!

TEACHER: It is. I want you to think of this question. You're going to talk about it with your pod. Do all animals have the same features two adapt?

STUDENT: [INAUDIBLE]

TEACHER: Ah. Heads together. Bums up. Whisper with your pod. I'm going to give you about 30 seconds.

STUDENT: No because they have different ways to protect themselves or how to survive in the Mojave Desert.

STUDENT: Some of them, like coyotes, lizards, geckos, scorpions, and jack rabbits could run away. Like, bounce away. And scorpions and all that stuff can run more fast, or they could dig their selves in the ground.

STUDENT: So there's lots of different ways that they can protect themselves?

STUDENT: Yeah.

STUDENT: So, no? No, they're not all the same?

STUDENT: No.

STUDENT: K.

TEACHER: Ready to rock?

STUDENTS: Ready to roll!

TEACHER: All right. On your pockets, please. What are some answers that you came up with? Do all the animals have same features to adapt? I need proof. You can't just say yes or no. Remember, I need proof. OK, Layla, what did you come up with?

STUDENT: Chuckwallas, they go in between rocks and other animals they could camouflage?

TEACHER: Oh, OK. So different ways to hide. Right? Very good. Who came up with another way? Parker, what else?

STUDENT: Some can trouble really far and some can't.

TEACHER: OK. And why would they be needing to travel far?

STUDENT: To get water.

TEACHER: To get water, right? So different ways. Different adaptations. What else do we have, were we just talking about on that page? OK, Stacia.

STUDENT: They need a special feature to hide, or they have a special way of eating things.

TEACHER: OK, can you give me an example, maybe, just from the page we just read?

STUDENT: This one?

TEACHER: Sure.

STUDENT: Where is it?

TEACHER: How are those animals adapting on those pages?

STUDENT: They have like colors. Being like colored can help animals in other ways. In the Mojave, the land is often colored tan, gray, and light brown. Pale mice, insects, or lizards are hard to see against this background. It gives the animal some protection from predators that can try to catch and eat them.

TEACHER: Very good. So do all the animals have light colored fur in the desert?

STUDENTS: No.

TEACHER: No! So then what? So we have these light colored animals. Now, what else do we have?

STUDENT: Dark colored animals?

TEACHER: Right! And why would they be dark colored? What does it tell us in the story? Hm. What does it tell us in the story? Everybody's looking. I like that. I like how people are looking in their story.

STUDENT: Rocks and soil that are black or dark brown, in those places, darker colors help them hide and survive.

TEACHER: Very good. So we have the animals that live in the rocks, dark colored. The animals that live in the dirt, light colored. Excellent. All right, kiddos. I want you to think about what we talked about at the beginning of the story. Two things. Our essential question being, how do animals adapt to the challenges in their environment? OK? I want you to whisper with your pod some of the ways that you've learned about how did animals adapt to the challenges in their habitat.

[CHATTER]

STUDENT: Because in the Mojave Desert, it's dry, and it gets really hot and there's--

[INTERPOSING VOICES]

STUDENAT: So if a predator comes by, the could camouflage.

STUDENT: And the tortoises could dig burrows for other animals and the tortoise to survive in the--

TEACHER: Here ye! Here ye!

STUDENTS: All eyes on the queen!

TEACHER: Thank you. OK, kiddos. While we were discussing our story, we also talked that the author's structure of this story is compare and contrast. Did we prove that as we read our story?

STUDENT: Yes.

TEACHER: OK. So you guys showed me a lot of ways that the author used compare and contrast to tell his story. Your job now is to pick any section in the story we just read. OK, how do we know it's a section? Who can raise their hand and tell me? How do we know it's a section? Yes.

STUDENT: It has a heading on top of the story.

TEACHER: Right. It'll have a heading on the top of a story. So what page are you on right now?

STUDENT: 334.

TEACHER: OK, and point to the heading, please, and read it to us.

STUDENT: Cool and safe underground.

TEACHER: Very good. So on page 334, the heading is cool and safe underground. So if I chose that section, I'm going to find two animals in that section. And I'm going to fill out my Venn diagram. I'm going to write the names of the animals, how those animals are like, and how they're different. OK? Can we do that?

All right. Here's the hard part. You are going to take what you found, and you're going to write it in a paragraph in the back. OK? So notes here. Take these notes. Turn it into a paragraph. Questions? All right, third grade, this is going to be your exit ticket for today. So, please, put your names on the top. Go ahead and choose your section while I'm coming around with the paper. Think about what animals you would like.

We're going to choose the section. [INAUDIBLE] a section. OK, so you're going to put the two animals in here that [INAUDIBLE].

STUDENT: [INAUDIBLE]

TEACHER: What are you gonna do? [INAUDIBLE]? OK, and what else? The mouse. [INAUDIBLE].

So the [INAUDIBLE].

STUDENT: [INAUDIBLE].

TEACHER: [INAUDIBLE]. OK.

STUDENT: Not that one.

TEACHER: How you doing, Parker? Did you do a lot of these at [INAUDIBLE]?

STUDENT: [INAUDIBLE].

TEACHER: [INAUDIBLE].

[SOFT CHATTER]

Then you have [INAUDIBLE]. It's a big move, right? [INAUDIBLE]. So he does. He is, kind of, light and dark, as well. What is this section talking about though?

STUDENT: How they get their water?

TEACHER: Yeah. So we're talking about how--