



**Transcript for *The Lion Queens of India* by Jan Reynolds (Lee & Low Books)**

**Introduction (approximately 0:00 – 3:50)**

Hi everyone! It's Colleen from the KU Natural History Museum, and I'm so excited about today's Story Book Science. We will be reading the book *The Lion Queens of India*. But before we read the book, I do want to give an opportunity for some folks to join us.

So, while we wait, I want to talk a little bit about what we'll be talking about in the book. So, we're talking about the Lion Queens of India, who are female rangers in Gir National Park. And Gir National Park, I have a photo of it. This is an image from Gir National Park. So, this national park, you can tell, has a lot of trees. So, it's a forest. And the national park is located within a forest wildlife sanctuary. And it's there that the last remaining Asiatic lions live.

So, this is an image of an Asiatic lion that can be found in Gir National Park. Now, when you look at this image, what type of animal do you think a lion is? Do you think a lion is a cat? You are correct! Lions are cats. They're members of family Felidae. And that's the cat family. So, lions, tigers, cougars, even house cats are all members of this family. And they have characteristics that they all share. And I want you to think what some of those things are that all cats share. Can you think of any?

When I think of cats, I always think about their teeth. I think about the fact that they have long, sharp, and narrow teeth.

So, why do you think cats need long, sharp, and narrow teeth? I want you to think about that, and I want you to keep that in your mind because we're going to talk about it after our reading. But I want to go ahead and get started.

So, first and foremost, we need to go over our guidelines for Story Book Science. We are not in the museum, but we are going to follow museum rules. So, what that means is if you have a question or if you want to write a comment, you should feel free to do so. But you need to make sure to use kind and considerate words. If you respond to someone's question or comment, you also need to make sure to use kind and considerate words. We are not in the museum, like I said, but we still want to use kind and considerate words so that this space is welcome and inclusive to all. So, can you use those kind and considerate words for me? Excellent! Thank you so much!

Alright! Welcome to Story Book Science! Today, we are reading the book *The Lion Queens of India*. This book is by Jan Reynolds, and it is published by Lee and Low Books. We're going to get to explore Gir National Park, which is a national park in India. And we're going to learn about the female rangers in the park, who are also known as the Lion Queens because they protect the Asiatic lions found in the park.

Now, if you have any questions, please feel free to ask. Uh, you can write it in the comments. I will let you know, I'll only answer it, if I can see it and if there's time. Also, if you need a partial transcript of this reading, that will be made available a little later today. Alright? Excellent!

So, let's go ahead and get started!

*The Lion Queens of India.*

### **Reading from *The Lion Queens of India* (approximately 3:51 – 16:16)**

The *Lion Queens of India* includes copyrighted materials, and we do not have permission to include the written text of the book in this transcript.

### **Conclusion (approximately 16:17 – 27:25)**

The end!

Alright. So, I don't know about you, but I think that book is awesome! It was amazing to hear from Rasila all about her work as a forest ranger and the work of her colleagues, the Lion Queens, that not only protect the lions but also work with the people surrounding the wildlife sanctuary, so that they can also thrive, as well as protect lions.

So, I hope you enjoyed that book as much as I did. I also really liked this book because I got to learn about a national park outside of the United States. I got to learn about Gir National Park in India, which if you remember from what we saw in the story, we learned is a forest sanctuary where the Asiatic lions live. And these are where the last remaining Asiatic lions live.

Now, they used to have a really big range. If you remember, we looked at a map in the book. And what we saw from that map was Asiatic lions used to live all the way from southern Europe, all across Asia. So, they could be found in lots of places, but then people hunted them. And then their forests where they lived were destroyed. So, that historic range, it shrunk and shrunk. It got much, much smaller, so that now the only wild Asiatic lions live in a very small part of India.

So, this is a closeup of the country of India. And this green blob, that represents the forest wildlife sanctuary, which includes Gir National Park, and is where those lions can be found.

So, just to give you some idea, if you look at this smaller map, that is the country of India. And this larger map is that zoomed in portion where my finger is. So, you can see that that is where those last remaining Asiatic lions can be found.

Now, Asiatic lions, I think that they're very beautiful, and they have a lot of really unique features about them. So, the first is that they have a skin fold. So, the skin fold runs all along the underside of their belly. And that's one unique feature of the Asiatic lions. Additionally, the males, they have manes like other lions do. But for the male Asiatic lions, most of the hair is found below the chin. And that means their ears are visible at the top of their head. The mane, the hair at the top, it's not blocking their ears. So, we can identify them by being able to see their ears. Alright?

Now, earlier, I asked you all what type of animal is an Asiatic lion. Do you remember what we said? And if you don't remember, can you tell me what type of animal an Asiatic lion is? It's a cat!

So, Asiatic lions are members of the cat family, or family Felidae, which I'm going to put on the wall. Alright.

So, Asiatic lions are a member of family Felidae. This family of cats includes lions, tigers, cougars, also house cats! And they're members of this family because they have certain characters that they share. So, they have these shared characters or features that are common among all of the cats. And I want to share one of them with you by using some museum specimens. So, let me grab that!

Alright. So, this is a museum specimen of a house cat. And I want you to look at the teeth. I will let you know, some of the teeth are missing, So, they've fallen out. And some of them are chipped. But for those that are missing, we're just going to imagine that they're there.

When we look at the teeth of this museum specimen of a house cat, what do you notice about the teeth? Think about what we talked about in the book, too.

When you look at the teeth, do you notice that they're sharp and narrow? That's something I notice.

So, when we talk about cats and their teeth, they have long, sharp, and narrow teeth.

Now, why do you think that cats need long, sharp, and narrow teeth? Do you think they need those teeth in order to eat? Yeah. So, they need teeth in order to eat their food. And they need those long, sharp, and narrow teeth to shred and rip their food because they eat meat.

In the book, we talked about the fact that lions are carnivores So they're meat eaters. But cats, all cats are carnivores. So, we can put that as a vocabulary word on the wall: carnivore.

So, cats are meat eaters. They're carnivores, and we saw that with the teeth on the museum specimen of a house cat. And I have another museum specimen of a cat that I'd like to show you. So, I'm going to grab that as well.

Alright. So, this is that other museum specimen of a cat. It's a different species than the house cat. But do you notice that it also has those long, sharp, and narrow teeth? And just like the house cat specimen, some of these teeth are missing. Some of them are chipped, but you can, especially on the back teeth, see that they're sharp. And you can imagine that the teeth at the front are also very long, very sharp, and very narrow. Alright?

Now, what I want to do is I'm going to show you those two specimens at the same time. And I want you to look at them. We know one of them is a museum specimen of a house cat. And we know that the other is a museum specimen of another species of cat. But what I want you to do is I want you to look at the specimens and observe the similarities and the differences. So you're going to compare and contrast. You're going to look for things that are the same, and then look for things that are different. Okay? Excellent!

Alright. So, I'm going to hold up these two specimens at the same time. So, here is this one, which is closer to the camera at the moment. This is the museum specimen of a cat. And then this is the museum specimen of a house cat. What do you notice are the same? What do you notice are different?

Just take a moment longer.

Alright.

Now, when I look at these specimens, the differences are pretty easy to spot. This museum specimen is much bigger than the museum specimen of a house cat. And that makes sense because this museum specimen is a museum specimen of a mountain lion, which is much bigger than a house cat. So those are the differences.

But the things that are the same are the shape of the teeth. They're sharp. They're long. They're narrow. And the cats need them, whether it's the mountain lion or the house cat, because they're carnivores.

Another thing that you could look for that's the same is, not only the shape of the teeth, but the pattern of the teeth, or how many teeth there are. Now, again, some of the teeth are missing, so we need to imagine that they're there. But the first thing I want you to imagine is a line, just going down the skull of the mountain lion. So, it's separating the skull into two halves. So, again, just imagine that line right in the center. One side of the skull, there are three teeth at the front followed by one tooth, one canine. And then, there are three premolars. And it's a little hard to see, so I'm going to have to flip the skull. But there's also one molar in the back. So, this pattern is that there are three teeth, then one tooth, which is the canine, three premolars, which are behind the canine, and then one molar. So that's the pattern of teeth that you see in adult cats, whether it's mountain lions or house cats.

So, you could do the same thing with the museum specimen of this cat. Again, you have to imagine some of those teeth because they are missing. But you have, if you had that imaginary line separating this museum specimen into two halves, you'd have three teeth in the front, then you'd have a canine, the three premolars, and then the molar, which can be seen in the inside of the specimen. Alright?

So, these are ways that we can use museum specimens to study animals like cats from domestic house cats to big cats like mountain lions, to cats like Asiatic lions, which we know live in Gir National Park. Alright.

Now, thank you so much for joining me today. This is the last reading for Story Book Science for quite some time. Thank you so much for joining me. I had so much fun sharing some of my favorite science stories with you. Although we don't have any more readings scheduled, Prakriti and Mira have some awesome STEM challenges planned about their favorite science books. So, I hope you join them next month. I'll be there, so I hope that you will be as well. And I'll see you then! Bye!