



Transcript for *Izzy Gizmo and the Invention Convention* written by Pip Jones (Peachtree Publishing Company Inc.)

Introduction (approximately 0:00 – 3:13)

Hi everyone! It's Colleen from the KU Natural History Museum, and I'm so excited that you're joining me for Story Book Science today. Today we are reading *Izzy Gizmo and the Invention Convention*. So before we start reading, I am going to wait for just some people to join us.

And before we start, I want to talk about why I'm excited to read this book. There are so many reasons. For example, Izzy is so creative and so smart and creates these amazing inventions. And because of that, she gets to go to an invention convention. So she goes with her Grandpa and her friend Flicker; and they're very supportive in Izzy's work and helping her create the most useful invention. And besides her Grandpa and Flicker being really supportive, some of the other kids at the invention convention are also really supportive. So they see Izzy's work, and they support her, and they raise her up. And I'm so excited that we get to read this story because we'll get to see the importance of supporting people.

Now after the reading we will also talk a little bit more about Flicker. So if you like crows or other members of the family Corvidae you'll have a lot to learn after the reading.

Now it looks like people have joined us so let's go ahead and get started!

So my first thing, as always, are the rules for Story Book Science. We are not in the museum, but we are going to be following museum rules. So what that means is that if you have anything to say in the comments, so if you have a question or you want to say something you really liked about the story or Izzy's invention, you can do so; but you need to make sure that you're using kind and considerate words. And same if you respond. So if you respond to a question or a comment you need to make sure you use kind and considerate words. This is a space that we want to make sure is welcoming. So, again, kind and considerate words.

Now today's book is *Izzy Gizmo and the Invention Convention*. It's written by Pip Jones, and it's illustrated by Sara Ogilvie; and we're reading it with permission from Peachtree Publishing. So thank you to Peachtree Publishing for the permission to read this book. I like this book because Izzy, like I said, is creative and smart, but it also reminds me of the importance of supporting each other and also the importance of working as a team to think through and find a solution to a problem.

Now the last thing I have to say is if you need a partial transcript of this reading, it will be made available a little later today on the museum's website.

So let's go ahead and get started!

Izzy Gizmo and the Invention Convention.

Reading from *Izzy Gizmo and the Invention Convention* (approximately 3:14 – 11:05)

Izzy Gizmo and the Invention Convention includes copyrighted materials, and we do not have permission to include the written text of the book in this transcript.

Conclusion (approximately 11:06 – 19:20)

So Fixer also got a prize too for helping Izzy! And before I shut this book, because this is the end, I want us to take a moment to look at all of the kids who participated in the invention convention. So we have Will, there's Gillian, there's Maximillian Spout. And they didn't win a prize for their machines, but look how happy they are for Izzy! They saw how amazing her invention was. They saw how useful it was, and they're celebrating her and her amazing invention, her creativity. And I think that's something that we should really look at, because it's very good to support people and raise them up just like Will, Gillian, and Maximillian are doing. And the way Abi treated Izzy and took too many cogs and all the wires - that wasn't very fair, and that's not being supportive. What is being supportive is raising people up and supporting them in all of their achievements. So, when we go forward, I think it's good for us to act like Will and Gillian and Maximilian Spout.

So thank you for joining me for *Izzy Gizmo and the Invention Convention*. I had a lot of fun reading that book, and I had a lot of fun looking at all of the inventions the kids made and looking how they were supportive and raising Izzy up. But one of the characters in the book was not a kid, uh, Fixer. Fixer is a crow. Now crows are part of a family of birds called family Corvidae. We can also call them corvids; and there are a lot of different birds in family Corvidae. We're going to focus first on the genus *Corvus*, and that's where you would find birds like Fixer: crows and ravens. And it got me wondering, would a crow be a good lab assistant? And I gotta say I think a crow would be a very good lab assistant, because crows and ravens, they're super smart.

So I have a specimen that I want to show you. This here, it is an American Crow, and it's quite large. It's a little hard for me to get all of it in the camera frame, but from the beak all the way to the tail feathers, it's about 18 inches. So crows are quite large. And when we talk about birds like crows and ravens, they have really big brains compared to their body size. Now these really big brains, there is a lot of stuff going on in them. So they're really good thinkers. So for example, crows, if they see something, they can look at it, and they can study it and examine it; and they can determine if it's good or if it's bad. And then they can change their behavior based on how they feel. So if a crow sees something, and it's good; and in their brain, they think that's good, then what they do is they change their behavior to keep doing the good thing. So for example, if they're in a field, and they see that there's food there, they're going to keep going to that field because that's where the food is. And that's good. But if crows see something bad, or something that's threatening them, well then they'll change the behavior to stop that bad thing or stop that thing that's threatening them. So crows and ravens have this ability to think. Now let's look at this real crow again. And what we can see is that it has these black glossy feathers, and it's quite large, as we've discussed before.

And now what I want to do is I want to discuss the diversity within family Corvidae. Because crows and ravens aren't the only members of that bird family. So we're going to put this crow down. And we are now going to talk about jays.

Now jays, there are a lot of different types of jays. If you live in Kansas, you've probably seen a Blue Jay before. You've also probably have heard a Blue Jay before. And if you don't live in Kansas, maybe you live in an area where there are other types of jays. And one jay I want to highlight is the Pinyon Jay. Now Pinyon Jays are also very intelligent. So they are seed collectors. So they collect seeds, and then they store them. And because they store them, they need to make sure they remember where those seeds are. So they have an area of their brain called the hippocampus, and it is very large; and the hippocampus is where memories are made and

memories are stored. And so Pinyon Jays have this really big hippocampus, so they can remember where they store their seeds.

Now jays, like the Pinyon Jays, are not the only birds in family Corvidae that have these large hippocampus areas in their brain. Another bird in family Corvidae that has a very large hippocampus is the Clark's Nutcracker.

Now the Clark's Nutcracker, they are excellent at hiding and storing their seeds and then remembering where they are. So again, just like the Pinyon Jay, they have to make sure that when they store their seeds, they remember where they put them. So they have to be able to form memories and make really good memories.

Now I don't have a Pinyon Jay or Clark's Nutcracker to show you, but I do have a Blue Jay. And this is the Blue Jay. You can see it has these beautiful blue feathers. And I recently learned that Blue Jays, the blue of their feathers is caused by light reflecting off of cells. So they have melanin in their feathers, but the blue appears to us because of how light reflects in the cells. And I thought that was so cool, and I wanted to share that with you! But when we look at this Blue Jay beside, besides the feathers, I also notice how much smaller it is than the crow. So the crow is about 18 inches from beak to its tail feathers, and it was really hard to put in the entire camera frame. But the Blue Jay is much smaller. Do you all see that? And I'll have us look at its feathers one more time.

Alright. So I'm going to put this down.

So today, during Story Book Science, what we did is we read *Izzy Gizmo and the Invention Convention*. We talked about the importance of supporting each other and raising each other up. We also talked about birds like Fixer in the story, birds in family Corvidae. And I'm so thankful that you joined me. Now I want to let you know that we will not be having a Story Book Science next week because the museum is going to be doing virtual camps. So we hope that you join us for virtual camps. And then after camps, so the week after – so not next week, the week after – we'll come back with Story Book Science, and we'll read the book *Little Tigers* which is written by Jo Weaver.

So I hope to see you next week for camp and then in two weeks for our next Story Book Science. I'll see you then! Bye!