

The Storying Project, a Sparkle Stories Workshop

Lindsay Patterson – Kids are doing science all the time.



Lindsay:

So, I love that story of just how kids questions really, they sound silly, this is the ultimate silly question she could have asked, but it actually has some serious science behind it. It's a wild journey.

David:

Hello there this is David and welcome to The Storying Project, a Sparkle Stories Workshop. We are so glad you've come to visit this podcast where we delve into the process of creating an original Sparkle Story. What you are going to hear is a conversation between me, our chief storyteller here at Sparkle, and a special guest. Our guests are people from all walks of life, some you may know and others you might not, but all are conscious of the stories that we tell our children and their impact.

So, I ask all our guests: "What do you think children need to hear right now?" And we have a conversation that will ultimately lead to a produced audio story for children. And we will share a bit of that story here after the conversation.

Today, I will collaborate with Lindsay Patterson of the Tumble Science Podcast for Kids. We're thrilled to have Lindsay join us today. In addition to being the co-host and co-creator of Tumble Science Podcast, Lindsay is also a co-founder and co-chair of Kids Listen an advocacy organization for podcasts for kids - which is how Lindsay and I first met - as well as a co-founder of Tumble Media.

Thank you so much Lindsay and all of you listening for joining us - and we hope you enjoy the conversation and the process. And be sure to listen for a special message from Lisabeth of Sparkle Stories at the very end. Now here is our conversation.

David:

Hello, Lindsay. Science is something we're going to talk about, it's inevitable. It's throughout your biography and your work. However, science, the word science, is used so often right now, almost like story. You hear the word story everywhere. You hear the word science everywhere, this past year in particular. So, I feel like we need to have a common understanding of how we're going to use that word. What is science in this time where people say, "We have to look at the science," or, "I believe in science," or, "It depends on what science you're looking at." So, Lindsay, can you tell me your understanding and how you use that word?

Lindsay:

That's a big question, because science is really everything. I see science as a way of looking at and understanding the world. For me, science is a process, it's not a set of facts. It is an evolving body of knowledge based on the best possible evidence that we have right now. I think that that's what a lot of people miss about science, but is one of the most, or if not, the most important thing to understand about science is that we are always improving our knowledge. We are always correcting mistakes and understanding. And we are always learning more, and being more curious, and having better tools to improve the science.

So, science is an evolving... It's a very human process. It's done by humans. So, it's not something, it's not a paper you can consult. It is a community and it is a process. So, to me, that's what science is and

that's what I hope that... That's how scientists understand science and how I want to communicate science, as a process.

David:

Yes, communicate science. That seems to be really key right now. That's such an alive understanding of science, and it's this, I know that part of your history, a story, a book that's important to you is Every Living Thing by Rob Dunn. I'm not familiar with the book. And I would love for you to talk about that. But I do know this passion that we have for naming things, this passion that we have for identifying and organizing things. I relate to you, as a storyteller, very, very much. I'm finding, in your description of science, so much of that is how I would describe storytelling. It's this constant correction of mistakes. It's this constant living way of navigating and understanding the universe through story, through data, either way, they're both involving this naming. Can you talk a little bit about that book and your relationship to it?

Lindsay:

Yes. Well, before I talk about the book, I'd love to respond a little bit more to sort of the way of seeing things, whether it's through science or through storytelling. And what I do is a combination of both, which is science storytelling. I think science is really a lens to see the world, just like any other frame that you want to put on it, but it has the added benefits of helping us solve some of our most important problems, and also getting questions answered to the best of our abilities.

So, with science storytelling, I think the thing about that book, Every Living Thing by Rob Dunn, it was one of the first books that I read that really brought that process alive, that told stories about science that made scientists human, and that quest for knowledge, very... Feel vibrant and vital. Sorry, it's been a long time since I've read the book, but I always think of it as a milestone for like, if I had had a story like this when I was younger, I would have gotten the point.

But the story it's about the quest to name everything on the planet, and the people who played a part in that. I see that as one of the most quintessential things about science, is giving things a name, just like how do we categorize things? How do we like put this in here and put that in there? And with science, categories can change, but usually once you put something in there, that's where it belongs. The quest to do that for every single species on Earth is huge. But when people started doing that, they thought it wasn't going to be that big of a job.

David:

Yeah. Wait, there's a million things in this rock? Yeah.

Lindsay:

Yeah. And we still don't understand how many species there could be left to name on Earth. And that's why when you hear like, "Oh, new insect discovered, new this, new that." It's not just like, "Oh, it popped out of nowhere." It's just like, we weren't looking for this thing or we hadn't classified it. Or the people who lived near that thing had known about it forever, but it just hadn't entered this description process of science.

So, it's like turning that into a scientific file, which seems like a lot of data entry, but it's really just such an exploratory experience that sheds light on sort of what we know and we don't know about the world. That really captured me. I think Rob does a great job of describing that in such a human process of the highs, and lows, and frustrations, and moments of inspiration, and the passion that really drives scientists.

And I find that very similar to the passion that drives kids when they're picking up rocks, finding what's underneath and that's a very natural process for children. I think that scientists have managed to hold on to that when they're passionate about their research and what they do.

David:

Yes. That sense of wonder and experience, like getting your hands in it. It's not a conceptual thing. It's, "Wow. This right here, when I tossed this on the brook, it floats, but this thing doesn't."

Lindsay:

Yeah.

David:

Like, I'm on the little bridge in between the kindergarten and where we go have our snack and I'm going to toss the... Oh, look at that, it floats. And we're doing science.

Lindsay:

Yeah, it's observation. Yeah, that's the first process. That's the first step in the scientific process and kids are doing it all the time. They look, they observe, they take notes. That's how we learn about the world. That's how we learn, "My mitten is going to float and I can chase after it for a bit," versus-

David:

Let's see if your mitten floats.

Lindsay:

... "If I drop my Hot Wheels, that's going to the bottom and I can't get it back." That kind of thing.

David:

Yeah, that's a drag.

Lindsay:

Yeah. Happened to-

David:

That's one of those mistakes.

Lindsay:

... my family very recently, the tragic loss of a Hot Wheels in the water.

David:

Yeah. It felt really real. That example had a lot of vitality to it.

Lindsay:

No amount of wind is going to get that Hot Wheels back to where we could grab it.

David:

I know, there is a lot of tragedy in scientific exploration.

Lindsay:

Yeah.

David:

Now, you referenced a moment ago, longing for a particular story when you were young. And I know another little piece of your biography is a moment in which you were able to interview your first scientist and then suddenly things kind of changed for you. This understanding of science changed for you. I would love to hear that story of that interview and what happened, what lights went on.

Lindsay:

Yeah. So to go back to the beginning, I was the kind of kid who was not interested in science in school. I was a humanities person, I loved writing, I loved English class, I loved social studies. And I thought like, "This is the path for me." I got into journalism and I wanted to tell stories about humans. So, more like social stories.

But when I was in, after I graduated from college, I was getting into radio journalism, and I had the opportunity to freelance for a short form radio show called Earth and Sky. So, I had the opportunity to interview a scientist and the first time I talked to him, the lights really went on that he was trying to solve, through his science, a problem that I was very interested in. He was in environmental science, and I've been interested in the environment my entire life.

So, that interview really switched on the light of what I'd been missing throughout my entire science education, which was that scientists didn't have all the answers to every problem, and they were looking for them, and that there was still discoveries to be made. Even in my college level science classes, when I asked one of the teaching assistants like, "What happens here in this outcrop where we can't identify the layers in geology?" And she was like, "Oh, we don't know." I just thought that meant she didn't know, I was like, "I've clearly asked the wrong person. I need to talk to the professor."

I just did not know that there were things that people did not know. And that's so fundamental to the process of science, is that there's a lot that we don't know. We don't know more than what we do know. Science is a way to ask those questions and get those answers.

So, it was that experience combined with the opportunity later, working with that show, I had the opportunity to write a series for kids. I really enjoyed that, because I had, number one, no science background. And I wanted to ask those basic questions that kids had. I discovered that they were just as interesting as what we were doing for adults. Then, connecting that with my own experience of not understanding that fundamental lesson of science that made it interesting with that gap I really felt needed to be filled was more science communication to kids. That wasn't about, "You need to be a scientist or engineer, and enter the STEM career pipeline." It was more about like, "Even if you don't want to be a scientist or engineer, it's interesting to learn about science."

It's also essential, because all of us, everything that we do involves, at this stage, understanding science and the scientific process. There are so many decisions that we're faced with every day in our personal lives about what kind of products we're going to use or what we're going to eat. The number of scientific conversations in your life is probably overwhelming, if you think about all the science that's going on.

Then, on a larger scale, I realized that we couldn't make big changes in our approach to climate change or to public health and things like that, if there wasn't widespread support. If there weren't decision makers in charge who understood and appreciated science as well.

David:

Right. It can feel overwhelming and opaque to all the grownups, let alone the kids.

Lindsay:

Yeah. It becomes more about literacy in that situation. So, at the same time, I came across a book called Unscientific America, which is written by Sheril Kirshenbaum and Chris Mooney. And Sheril is actually now one of my very good friends. And her book really, really inspired me, because it was about, it was written around 2008, which is sort of the time I was going through my process of discovery about science, but it was about how scientific illiteracy and not understanding the concepts behind the process of science was crippling America by putting people were in power, who actively sort of throughout science, and I think you can see that even more recently in recent politics and even current politics.

So, in reading that book, I realized that, for adults, they were really married to their beliefs and their understanding and their concepts about science, and that it was going to be hard to have conversations where you change people's minds about climate change. I've experienced that many times.

So, in reading this, I thought, "We really have to start with kids and we have to have hope for the next generation." That comes along with not just saying like, "Here are the issues, here's what's to think

about them." But really just inspiring kids to understand the process of science, how science works, so that every issue can be broken down by asking certain critical questions that amounts to scientific literacy. Because science, it's very easy for it to be manipulated into a place where it's... People get confused, people are looking at different sets of so-called facts.

But science really doesn't cling to facts, it clings to evidence and building on evidence. If you can kind of understand that, then the narrative makes a lot more sense. Why are we asking... Talking now in the end of May of 2021, there's questions about where did Coronavirus come from. And why are we asking these now and potentially revising our understanding? It's because science is always learning from itself. The understanding that we had before may not have ultimately been the right answer. It was just what we could know at that time.

So, regardless of the political aims that whatever science claims to be supporting, is claimed to support or not support, if you can ask more critical questions about the science itself, then you don't have to feel as adrift in terms of how it gets politicized, I think.

David:

That's where the storytelling comes in. I mean, we're all storytellers and we can tell a story about whatever we want. If we're really good storytellers, we might even convince people. So that's the tension with storytelling and being a science communicator is where's the story grounded? And where's it coming from? With the aim of whether it's, like you said, inspiring or enrolling or correcting. So, here you are, a parent, a science communicator, a storyteller, a podcaster, a very successful podcaster, who now speaks to children around the world about science. I'd be curious with what we've been talking about, how would you simplify that message? And what do you think children need to hear right now?

Lindsay:

I think that if children understand how science works, the world will be a better place. So, I think it's stories that are inspiring about science, stories that answer questions that they care about and are connected to a very human place that they relate to, which is curiosity and passion. So, that's why the stories in Tumble are all focused around a scientist and their own curiosity, to an excitement around the subject.

For us, in our interviews, the most important thing to bring out from a scientist is their excitement and their pure joy in what they're doing and why they're curious about it. Because I think that's what, it brings science from this sort of abstract idea, or a scientist, as a monolith, is this group of people in white lab coats who are like, "Yes, things are like this." Or like, "No, things are not like this." To just a community of people who, just like kids' parents, have jobs, go home and make dinner, have interests in things they like to do. And also reasons why they got interested in science, which usually trace back to their own childhoods.

So, often we try to include what really excited the scientists about what they study. I interviewed a cheetah scientist and she's like, "Yeah, I had some stuffed cheetahs on my bed when I was little." And I think any cheetah lover, any kid cheetah lover, might have that same stuffed animal and see like, "Oh, this person is not different from me." So, they don't need to be inspired to grow up and, "I'm going to be a cheetah scientist and that's like the ultimate outcome." It's just like, "Scientists are like me." It's not just somebody who is like a standout genius, which is many of the stories that we hear about scientists growing up.

So I want to provide much more of a range of models of who scientists are, what they look like, where they came from, what they sound like, that really diversifies the field of science, the subject of science for kids, and helps them relate to it in a much more direct way.

David:

Yes. To bring this pantheon of scientists global, and I'm thinking about your children, because your children are growing up in a different country than you grew up. You are in Northern Spain. And I know you tell stories to your children. Do you find yourself consciously integrating their Northern Spanish life into the subject matter of your stories?

Lindsay:

Yes. My favorite thing is to tell stories and make up stories with my older son. One of my favorites activities that we did during the lockdown was we wrote a trilogy called The Monster Fly of Montserrat, which Montserrat is a big religious mountain. It's the best way to describe it. It's one of the most sacred sites in Spain, and it's a beautiful mountain with these jagged rocks sticking out of it that just make it stand out from the rest of the mountain range. It's extremely striking.

So, we were making some dragonflies out of clothespins and I just started asking my son like, "What's this dragonfly? What's he doing?" And we made up a story about the dragonfly family and their adventures in Montserrat. So, I really love incorporating these places that are the places that my son knows, that are really the landmarks for him and the places that he wants to go in his imagination.

David:

So, if you and I were to spin a story right now, this is not a hypothetical, we're going to spin a story right now. I personally am finding myself really attracted to that landscape, and learning from you about those sorts of places. And when we're thinking about what children need to hear right now that it's a part of being a human being is to be scientific, is to engage in science, it's not a distant thing. Like storytelling, we all tell stories, we all engage in science, and that there are stories that can bring that world of investigation and mistake making, love of mistake making a little closer. I don't want my affection to be leading the beginning of this process too much, but I'm overwhelmingly attracted to Northern Spain right now. So, I wonder if maybe we can launch our story there. Does that feel in alignment with you?

Lindsay:

Yeah. Yeah. I'd be happy to tell a Catalan story, to make this a Catalan story.

David:

Okay. Great. And I'll be listening to the details. Let's see if we can gather around an individual that may have a story to tell us. When you imagine the kinds of stories you've been telling to your children and the stories that you've been attracted to at Tumble, I've heard dragonfly for your son, and at Tumble, they tend to be scientists' stories, biographies?

Lindsay:

Yeah. They're about researchers. Actually, the stories that I think work best in science are ones of active explorations.

David:

But we could have a couple sisters. Do you want to put them in Northern Spain somewhere?

Lindsay:

Yeah.

David:

Okay. Where?

Lindsay:

Let's see, the Pyrenees.

David:

Okay. Can you describe them to me?

Lindsay:

Yeah. The Pyrenees are, well, they actually go across the border between Spain and France and yeah, it's just like an idyllic landscape. In the summer, there's lots of flowers and high Alpine valleys. There's one place that we've been to a few times, which has some cool elements for kids, it's Vall de Nuria, and it has a cog... It's like a ski resort. But in the summer, it's just a place where you can go and hang out and hike around and you can only get there by a cog railway. So you have to line up in the train station and it takes you along this stunning landscape over this big valley. And you can watch people hike along the side of the train. Then, when you get into the final station, you're greeted by this kind of bowl and this beautiful mountain lake. People are picnicking around there and there's boats you can rent. Yeah, it's beautiful.

David:

Love it. Well, and this voyage there is fantastic from a narrative standpoint, because you've got this beginning and then this travel and then the arrival. What's nice about having sisters is that you can have two different perspectives represented by either of them.

Lindsay:

I think that it's really about phenomenon to explore, like noticing and in a natural setting there's lots to notice.

David:

Yeah. Yeah. Can you tell me a little bit about these two sisters?

Lindsay:

Yes. So, they have to have names.

David:

They don't have to, but you're also welcome to just come up with weird versions of your children's names. Amelia and I don't know-

Lindsay:

Yeah, they could be like-

David:

... they don't have to, you could say older and younger sister. That's fine.

Lindsay:

Oh, I'll say like Emma and Janie.

David:

Perfect. Emma and Janie, right.

Lindsay:

Yes.

David:

Okay. Nice. So, one of them is going to have a revelation.

Lindsay:

Yeah.

David:

One of them is going to meet with some new experience, which one do you think it is?

Lindsay:

It's going to be Janie, because she's kind of the arts and humanities person. Who's like, well, that's sort of from my perspective, being like, "Well, science is something that I'm just not interested in." But when she realizes-

David:

Yeah, "I'm not a science person."

Lindsay:

... that it's answering questions that she has, it sort of brings her more into the world.

David:

This is where the stories and science collide, where they actually realize that they're doing the same thing.

Lindsay:

Yeah.

David:

This is great. I can't wait to hear this story. So, is it on the rail or is it when they arrive that they encounter the force that is going to bring about that transformation?

Lindsay:

It's when they arrive. I think that on the railway, Janie will still be reading and Emma will be looking-

David:

Missing all the stuff.

Lindsay:

... at the window, being like, "Look at this, look at that, Janie." Can't be bothered. But when they get out, then Janie has to actually put down the book so she can see where she's going and somehow get engaged in the natural world and asking questions.

David:

Let's see if we can drill down on the somehow part of the story.

Lindsay:

Got it. She falls over...

David:

Nice. I love falling, yeah.

Lindsay:

... and she hurts herself a little bit so that it takes her a little while to get up. So, she realizes she's come face-to-face with something really fascinating on the ground, that she's never seen before.

David:

Okay, all right. No. Mineral or a plant.

Lindsay:

I was thinking a bug or like a-

David:

A bug. Yes, of course.

Lindsay:

A bug.

David:

Okay. Right, a bug. And probably colors may be a part of this bug?

Lindsay:

Yes.

David:

Maybe?

Lindsay:

Maybe it has like threateningly poisonous colors, which are like red and yellow or something.

David:

Right. So, there's a sense of alarm with this bug.

Lindsay:

well, she doesn't know that, but maybe Emma does, who loves studying bugs.

David:

Excellent. In the spring time, a certain bug presents itself. Do you know of a bug that has bright colors that might have some poison in it?

Lindsay:

I mean, butterflies is sort of the example that I'm thinking of. We did a Tumble episode about toxic butterflies.

David:

Perfect. That's great. So, potentially there could be a story relationship to this bug that happens for Janie.

Lindsay:

Oh yeah.

David:

And however, missing from that is a sense of like danger, which Emmy?

Lindsay:

Emma.

David:

What is the name?

Lindsay:

Emma.

David:

Emma. Pardon me, yeah. Emma carries, because of her study. And they're both tracked on the same creature. One from a storytelling standpoint, one from a scientific standpoint.

Lindsay:

Yeah. My other completing thought to this marriage of their two things is that it could be a species that had been thought to be extinct. So, they make a discovery together. They take a picture of it, upload it to an app called iNaturalist, which identifies things.

David:

This is exciting.

Lindsay:

And then what happens in iNaturalist is other people identify the object for you. It first suggests that you might've stumbled upon a butterfly and then people down the line can say, "Oh my gosh, this is a specimen nobody has seen in 100 years," or something.

David:

Here's what's fun, is that in the next phase of this, when you and I are actually landing this story, one of us is going to discover a bug. And it's one that neither of us know about, or forgot about, or something like that. That's going to just check all the boxes narratively for our story. Then, our universe will expand with the knowledge that such a bug exists, such a butterfly. Now, you're furrowing your brow. Is this-

Lindsay:

I'm nervous.

David:

Okay. Now, you've caught my attention. I'm just curious what you would come up with in the moment. Can you do that?

Lindsay:

I'd probably go to iNaturalist and see what is in this area.

David:

Just for laughs, just to see what you come up with.

Lindsay:

Yeah. I'm seeing some red and yellow bugs. This is an unusual ladybug that might be appealing. Oh, there's one moth, that's just-

David:

Here we go.

Lindsay:

... called the feline. It looks-

David:

Oh, here we go.

Lindsay:

... very fuzzy. And there's only one observation of it. The rosy footman, that's a red moth. Wait, wait, Spanish moon moth. But this is a very beautiful, definitely striking.

David:

The Spanish moon moth? Yeah, describe it.

Lindsay:

So, I mean, that's very evocative and it's been seen, there's been total 97 observations. So, it's got, it's just super colorful. It almost looks like hummingbird colors.

David:

Perfect, we found it.

Lindsay:

When it's got its wings spread, it has these fake eyes. Often butterflies have fake eyes to make it look bigger than it is. It's almost purple on top, kind of a purple-ish red.

David:

Oh, this is amazing. Imagine you're Janie, you've tripped, you've fallen, you look up and there's two eyes looking at you. Looking into these two iridescent eyes.

Lindsay:

Yeah. So, Emma could give her some information when they look this up.

David:

Yep. Yeah. Emma's well aware of this species, but Janie is entering into the species through complete wild wonder and maybe even a measure of fear of, "What is this that I'm seeing before me? That's not in a book."

Lindsay:

Yeah. So yeah, this is... I'm seeing a picture of somebody with their hand underneath it. And it is like the wingspan is wider than the top of their hand. So, it's quite large.

David:

Fantastic. Can you imagine? You've never seen something like that, you fall, and there it is right in front of you? It was fun to be alongside you as you went on that scientific journey.

Lindsay:

You can see it in its cocoon. It's also very eye-catching caterpillar.

David:

Beautiful. Well, look at us. Look at what just happened. We did some storytelling and some scientific exploration, and I think we discovered something really, really potent.

Lindsay:

It's such a great mirroring of what comes together in the story.

David:

Yeah, exactly. We just demonstrated how we're going to tell this story. Thank you for that adventure at the end there. So, for people to find you, well, certainly they can go to Tumble Podcast anywhere where podcasts-

Lindsay:

Are served.

David:

... are being offered, you will find Tumble, it's everywhere, and so wonderful. But any other parts of your life that you'd like to direct listeners towards?

Lindsay:

Yes, let's see. We're now also a production company, Tumble Media. So, we'll be making new podcasts, and we're really excited about that. We have a new one coming out in mid summer, and then we also have Tumble in Español, which there are six translated and adapted episodes of our favorite Tumble Podcast. So, you can hear them in English and Spanish. And hopefully we'll be making more of those in the coming year. We're just about to wrap up season six of Tumble and we'll be back with season seven, that we're already working on, in September.

David:

Excellent. So, you said your favorite of those six, whether someone wants to listen in English or Spanish, where would you start? Where would you recommend they start? Which episode?

Lindsay:

Let's see, of the six that we did, the Science of Poop is just a perennial favorite, it's by far the most popular episode. It's just like a wild ride through poop science, which is some of my favorite science. I just think it's so delightful. One we haven't translated yet, but I hope that we do is Do Trees Fart? And that came out in this season-

David:

It's a real theme here, yeah.

Lindsay:

... and it just came from a really, I love this story, because it came from a three year old who was just resisting going to bed, just asking her mom like, "Oh, does this fart? Does that fart?" And then-

David:

Hey...

Lindsay:

... "Do trees fart?" And her mom was like, "No, go to bed." But then her mom-

David:

Yeah, that was the end of that.

Lindsay:

... when she closed the door, she's like, "I study gas exchange."

David:

"Do trees fart?"

Lindsay:

Yeah. She studies gas exchange implants, and she was just like, "Oh my God, do trees fart? Do I study tree farts?"

David:

Yeah, it opened up.

Lindsay:

So, it sent her on this wild ride of like, "What is a tree fart?" So, I love that story of just how kids' questions really... They sound silly, this is the ultimate silly question she could have asked, but it actually has some serious science behind it and it's a wild journey.

David:

They find it, they find the density, they find the best story within any situation. And there it is, two words, tree fart.

Lindsay:

Tree farts.

David:

I need to hear more. So, that one will definitely be in the show notes as well, as well as the app.

Lindsay:

It's called iNaturalist. The website is inaturalist.org, and you can find it on the App Store, it's free and you can just start doing your own exploration and actually contribute to science. It brings you a lot of connection to the process of science itself.

David:

Yeah. As it did for us moments ago with this story exploration. Well, it's really wonderful to see you, and it's been just a joy to see Tumble just thrive and expand and now become a production company. It's just really, really great to see that.

Lindsay:

Yes, for sure. You were one of the first kids podcasters that I was actually able to meet and feel less alone. And I was so happy to find you and Lisabeth.

David:

Yeah.

Lindsay:

Yeah.

David:

Yeah. Wonderful seeing you, thank you for your time. I'm really excited to further explore this story with you.

Lindsay:

Thanks. This was really fun.

David:

Okay. Bye-bye.

Lindsay:

Bye.

David:

Hey there, it's David again. I have to say, I am so grateful to Lindsay for taking us all to the Northeastern part of Spain and then giving me a cog train ride, and then a walk around Vall de Nuria. This is one of my favorite parts of being a storyteller, it's to breathe in these new places that I've never actually visited, except in my imagination. Well, here is a snippet of the story Lindsay and I landed called The Spanish Moon Moth, enjoy.

The Spanish Moon Moth. Though Emma and Janie each sit in the same window seats on the same train, following the same incredible climb through the same beautiful series of mountains, the two sisters could not have been more different. They were on vacation. They were on a cog train. The train was snaking through the Pyrenees mountains in Northeastern Spain, but it was only Emma who had her hands and nose up against the glass, smiling at the stunning view. Her sister Janie, sitting exactly across from her, had her nose in a book.

"Was this path here before the train?" Emma asked her parents, as she watched the many hikers walking alongside the train track. "How did they make this bridge so tall?" She asked, as they crossed a stone bridge that took the rail line from one mountain side to another. "How come there isn't any smoke coming from the train engine?" She asked, as the train curved and she was able to see the engine ahead. This was Emma. She was 18 months older than Janie and always had questions. And when those questions were answered, they were followed by more questions. Emma was always curious, interested, adventurous, and enthusiastic to be sure, especially when on vacation and she was able to experience something new.

Her sister Janie was also curious, interested, adventurous, and enthusiastic, but in a very different way. Janie liked to experience her adventures in books. Janie loved to dream and imagine incredible places and characters, and impossible situations, and daring quests, both were enjoying the cog train ride up to Vall de Nuria, a beautiful valley town in Northeastern Spain with a wide, round lake and several hiking trails to explore. But they enjoyed the ride in two very different ways.

Lisabeth:

Hi, this is Lisabeth of Sparkle Stories. What you just heard was a snippet of the full collaborative story that David and Lindsay created together. To hear the entire story as well as over 1,300 other original stories, visit us at sparklestories.com. The stories from the podcast are all free to listen to and can be found on the browse page at sparklestories.com. While you're there, won't you, please, consider subscribing? You can start with an extended free trial when you use the code `storying, S-T-O-R-Y-I-N-G`.

The Storying Project, a Sparkle Stories workshop, was produced by Marjorie Shik. The audio editor is Nate Gwatney. Theme music composed by Angus Sewell McCann. If you'd like to know more about Lindsay and The Tumble Science Podcast, be sure to head over to thestoryingproject.com for many useful links related to this episode. We are so grateful to Lindsay for joining us and sharing her perspective and her wisdom. I particularly loved the understanding that science is a process, it's a living inquiry, it's never quite done. And that I love the image of scientists around the world as a community, asking questions and evolving together. We hope you enjoyed it. If you enjoyed this podcast, please consider following us and then leave us a review and let us know what you think. Thanks for listening.