



Transcript for *Tracks in the Snow* by Wong Herbert Yee (Square Fish, an Imprint of Macmillan)

Introduction (approximately 0:00 – 5:16)

Hi everyone! It's Colleen from the KU Natural History Museum, and I am so excited for today's Story Book Science. I'm so excited to read the book *Tracks in the Snow*. But while we wait, because I want to give some opportunity for folks to join us, I want to ask you a question that's related to the book.

Now, when we look at the book cover, we see the word tracks is in the title. So what are tracks?

Well, tracks are markings or impressions that animals, including humans, can leave behind. And they leave them behind in substances like snow or dirt. Alright? So, these tracks can tell us about what animals are in an area. And we can use them to identify the animals. Okay?

Now, what animals do you think we can identify by their tracks?

We can definitely identify animals like cottontail rabbits and mallard ducks. So I have the tracks of a cottontail rabbit and a mallard duck. So I'm going to grab those.

And this is the track of a cottontail rabbit. You can see it's very oval – oops – very oval in shape. And it's very long. So this is how we can identify a cottontail rabbit, looking for this really long oval shape. So I'm going to put this down.

And now, we're going to look at the track of a mallard duck. So the mallard duck also makes a track using its foot. And you can see that this animal has a webbed foot. You can see that in the shape of the track. And that makes sense because a mallard duck is an aquatic bird, and it needs these webbed feet to help it move through water.

So what I'm going to do now is I'm going to hold up the cottontail rabbit track to the mallard duck track, and I want you to compare and contrast them. What's the same? How are they different? Alright?

Alright. So what do you notice that is the same about these tracks? What's different? Well, they're the same because they're both made by feet. But they're different because they're made by different feet that have different shapes and sizes.

So, looking at these tracks and comparing and contrasting them is how we can identify animals from their tracks. But the question I want to ask you is are tracks the only way we can identify animals? Are they the only thing that animals leave behind that we can use to identify them? What do you think?

Take a moment to think about that, and then keep that information. Store that information, and we'll talk about that after the reading. But it looks like folks have joined us, so let's go ahead and get started!

First and foremost, we need to go over our Story Book Science guidelines. So, what that means is we're not in the museum, but we are going to follow museum rules. So if you have a question or you want to write a comment, you should feel free to do so. But you need to make sure you use kind and considerate words when you ask a question or you write a comment. If you respond to someone's question or comment, you also need to make sure to use those kind and considerate words. Can you do that for me? Excellent! Using those kind and considerate words will help make this space welcoming and inclusive for all. So thank you so much for using those kind and considerate words.

Now, welcome to Story Book Science! Today, we are reading the book *Tracks in the Snow*. This book is written and illustrated by Wong Herbert Yee, and it is being read with permission from Square Fish, which is an imprint of Macmillan. Now, I'm so excited to read this book, as I've mentioned before. We're going to focus on tracks, and we're going to focus on what animal, or what person, might have made tracks in the snow. So, do you think you might have an idea of what animal or what person made tracks? We're going to have to read the book to find out, though.

Now, before we start reading I have two other things. The first is if you have a question, please feel free to ask that, just know I may not be able to see it until the very end, and only if there's time. And if you need a partial transcript of today's reading, that will be made available a little later today or early tomorrow morning. And that can be found on the museum's website.

Now, I think it's time for us to get started with today's reading. So let's get started!

Tracks in the Snow.

Reading from *Tracks in the Snow* (approximately 5:17 – 9:49)

Tracks in the Snow includes copyrighted materials, and we do not have permission to include the written text of the book in this transcript.

Conclusion (approximately 9:50 – 22:45)

Alright. The end.

So in that story that we just read, *Tracks in the Snow*, we read about a young girl exploring the forest. And the forest floor was covered in snow. And she found tracks!

What are tracks?

Tracks are markings or impressions that are left behind by animals, including humans. And they're these imprints, these markings that can be found in substances like snow or dirt. They show us that an animal has been there. Now, tracks is a word that we've heard a lot already. And we're going to talk a little bit more about it. So we're going to put it on the wall as a vocabulary word. So, tracks, is going to go on the wall.

Now, in the book, the tracks in the snow, do you remember who made those tracks? It was the girl! It was the young girl. She had made the tracks in the snow the previous day. And the reason she knew she had made them is because they were leading back to her house.

Now, another way she could have identified her tracks in the snow is by looking at the markings and comparing it to the bottom of her shoe.

Now, this is how I know I've made certain tracks by looking at the shoe print. So, here is my shoe. This is the shoe I wear. And when I'm walking, sometimes the bottom of the shoe makes a shoe print. And that is the track that I make. Now, as I stated this is the shoe I make, and the reason I know it's the shoe print is because it matches the bottom of the shoe. So I'm going to show you a print that I made using my shoe. And this is that shoe print. So I'm going to hold up the bottom of my shoe again, and I'm going to have you look at the bottom of the shoe and the shoe print to make sure that they match. Okay?

So, I have the shoe, and I have the shoe print. Do they match?

Yeah. So the bottom of the shoe matches the shoe print. So that's how I know I make tracks that are from the bottom of my shoe. Alright! So I'm going to put these things down.

What other animals can we look for and identify by their prints, by their tracks? What animals do you think we could identify?

Earlier, we mentioned that we can look for the track of the cottontail rabbit and the mallard duck.

So for the cottontail rabbit, which makes its tracks using footprints, we can look for a really long oval shape. And if we're looking at tracks, so more than one footprint made by the cottontail rabbit, we would see one long oval shape right after the other. So it would go all the way up. So imagine that there are many of these prints. And for the cottontail rabbit, it would look like the rabbit had been leaping, that it was walking with a little jump in its step. Alright? So that is the track of the cottontail rabbit.

For the mallard duck, which is a little different, it still makes its track using its footprint. But the shape is much different. Alright? So it's not long or oval-shaped. Instead, what you see is a webbed pattern. Alright? Do you see that? And this webbed foot, which is the footprint of the mallard duck, what we know is that the mallard duck is an aquatic bird. So it uses its webbed feet to help move around in water. But when it's walking on land, we can see that webbed-shape pattern in the track. Alright?

So I'm going to put these down.

What other animals do you think we could look for their tracks to help identify them in an area?

One of the animals we talked about in the book was the gray squirrel. Now, the gray squirrel, I'm going to grab its track. It also uses its footprint to make its tracks. And the size of the gray squirrel's feet differ between the back – or I'm sorry – the front and the back. So the front, you have a really small oval shape. And then the back foot has this really long oval shape. Do you notice that? So this is the front, and this is the back. And even though they're oval-shaped, it's very different than that oval shape we saw with the cottontail rabbit.

And just so that we can compare, do you see how different that is? So, although the cottontail rabbit and the gray squirrel have these oval-shaped feet, they're still different shapes. So we can identify them based on the shape of the tracks they leave behind, which they make using their feet. Alright?

Now, I have one other animal track I want to talk about with you. And it is the track of a red fox. This is what a red fox looks like. And the track of the red fox is also made using its feet. But the track looks like this. So, the red fox, it has these paws. And they have paw pads on them. So, you can see the markings made in this track from those paw prints.

Now, what I want us to look at together is the heel, so the back paw pad. And it's a little difficult to see, but you may notice that it looks like there's an upside down V. And that's really important when we talk about the red fox. That upside down V pattern that you see in the heel pad is a characteristic of the red fox track.

But it isn't always easy to see that. And the reason why is because the paws of the red fox, they have fur on them! So because there's fur that are covering the paw pads of the red fox, it can be a little difficult for markings or impressions to occur. And I wanted to show you what the paw of the red fox looks like. And so to do that I have a museum specimen of a red fox that I want to share with you. So I'm going to grab that museum specimen. So if you can hold on just one moment.

Alright. So this is the museum specimen we're going to look at. It's the red fox, and you can see its red fur. But then at the bottom of the paw pad, so, right here I want you to focus on, it's a little difficult to see those paw pads! And you can imagine like the paw pads of a dog, or even a cat. They're a little calloused, a little rough. You can't really see that on the fox because the red fox has fur or hair covering those paw pads. And that can make it a little difficult for us to see those paw pads, especially when the red fox makes a track. Alright? So just take a moment longer to look at the bottom of the red fox's paw pads. And you can also, again, look at the front where its face is and its beautiful red fur.

But I'm going to put this down.

I want to ask you a question. I've already asked some folks. But I want to ask you if you think that tracks are the only way we can identify animals, if we don't see them. If we're just looking for things they've left behind. Are tracks the only thing that animals leave behind? What do you think?

Tracks are one way that we can identify animals that may be in an area, but we can't see the animal itself. So we can use tracks to identify different animals, but it's not the only way we can identify animals. There are other ways to identify animals by the things they leave behind. And I'll give you a hint of what those things may be. They're a little smelly, and it's something that the animal expels from its body. What could that be?

It's poop!

So we are going to use a scientific term to discuss the poop that animals leave behind. And that scientific term is scat. So we're going to put this on the wall as a vocabulary word. Scat is animal poop. It's the things that animals leave behind in an area. And just like tracks, different animals have different shapes of scat.

So for animals like the cottontail rabbit and the gray squirrel, they had oval shaped feet. And they also have scat that is clustered together, these tiny round pieces of scat. And I have models of them that I want to share with you. So they're not real. They're replicas of what the scat would look like. So here is the scat. I have the scat of a cottontail rabbit, and the scat of a gray squirrel. Now when you look at them together, you'll notice that the scat, it's round, it's small, there's a lot all together. But we know that these are scat from two different animals. Because the cottontail rabbit, although the scat is round, it kind of forms a pile. While the gray squirrel, the scat is also round, but it's more laid out and flat. It's not like the pile that we see with the cottontail rabbit. Alright? So I'm going to put this scat down.

I have one other model scat that I want to show you, and that is the model scat of a red fox. Alright? So, this is the model scat of a red fox. So it's a replica of what a red fox's scat would look like. And you can see it's much longer, and it's kind of pointed at the ends. Do you notice that?

So when we look at things like tracks, when we look at things like scat, we can compare them. And we can contrast them. We can see what's the same. We can see what's different. And looking at those things that are the same and different help us identify different animals that are in an area. Even if we can't see the animal, we can look for those things that it leaves behind.

So I had such a fun time today reading the book *Tracks in the Snow* and being able to talk about tracks, those markings and impressions that animals, including humans, can leave behind, as well as getting to talk about scat, which we can look for and use to identify different animals in an area. But it is the end of Story Book Science. I will be back next week, though, to read one of my favorite books, *The Snowy Day*, which is by Ezra Jack Keats. So we're going to talk a little bit more about snow, and you can see there are some tracks that the young boy has made. But we're not going to talk about tracks. We're going to talk about snow as a solid and all the states of matter, and how snow can go from a solid to another state of matter. So I hope you join me next week, here on Facebook Live at 10am for Story Book Science. I'll see you then! Bye!