Podcast: Imagine This

Episode: Why can I sometimes see the moon in daytime?

Duration: 7’29

[ABC Podcast sting - This is an ABC Podcast]

Bri: Hello, my name's Bri. And today on Imagine This, were looking up into the sky to find something that is big and round and bright. Do you know what we might be looking for?

Kids: Umm...the sun?

Bri: Good guess. But it's not the sun.

Kids: If you look at the sun, then you'll get blind eyes and you have to wear glasses.

When the sun come out, then you need to look down.

[Birds tweeting]

Bri: Well, we won't be looking at the sun today because it can hurt your eyes. We're looking for something else. What else lives in the sky that is big and round and bright?

Kids: The moon.

The moon!

Bri: Yes. It's the moon. Today's question is from Sebastian, and he wants to know something about this moon of ours.

Sebastian: Why can I see the moon in the day sometimes?

Bri: Great question. Sebastian wants to know why we can sometimes see the moon in the daytime. So, this week we're going on a moon hunt with our friend from Monash University, Dr. Dewayne Hummicker. Dewayne is an astronomer, so he's done plenty of moon watching. He might be able to help us find that cheeky moon.

Kids: Yeah.

Yeah!

Bri: Hi, Dewayne.

Dewayne: Hi there!

Bri: What were you looking for in the sky just now?

Dewayne: The moon.

Bri: Did you see it today?

Dewayne: No.

Bri: It must be hiding again.

Dewayne: Oh, yeah.

Bri: Dewayne, how come we can see the moon in the sky sometimes?

Dewayne: So the moon reflects the light from the sun.

Bri: Ah, we can see the moon because the sun shines on it.

Dewayne: Yes.

Bri: Have you ever seen the moon in the sky?

Kids: Yes!

Dewayne: Was it in the daytime or the night-time?

[Sparse curious music]

Kids: Umm, night-time.

Night-time.

But I can see it in the daytime too.

Dewayne: That's correct. Sometimes we can see it in the daytime and sometimes we can see that night. It's not one or the other, it's both.

Bri: So how do you think we see the moon in the daytime?

Kids: When it's morning time, the sun might accidentally keep doing light unto the moon.

Bri: So the sun can shine on the moon in the night-time and the daytime?

Kids: Yeah.

Bri: Dewayne, is this true?

Dewayne: Yes. You can see the moon during the day more often than at night.

Bri: Ah, so the sun is always shining on the moon, but it just looks brighter in the night sky.

[Owl hooting]

Dewayne: Yeah, that's right. The moon is easier to see at night-time so we think it's always in the sky at night.

Bri: What do you think the moon is doing in the sky?

Kids: It's moving. In the beginning, I think it started over there. And then it kept on being over here.

Dewayne: Yes. Every day it moves a little bit in the sky.

[Crickets buzzing]

Bri: So the moon is always traveling in a big circle around the world.

Dewayne: That's right.

Bri: Sometimes we can see it over here and sometimes we can see it over there.

Dewayne: Oh, yeah. It's almost like the moon is playing a big game of hide and seek with us.

Bri: But have you noticed it's also tricky to see sometimes because it goes from dark to light?

Kids: Yeah!

It's getting darker and darker.

Bri: Why does it look different sometimes?

[Reflective music]

Dewayne: Our earth is always moving and so is the moon, so the light we see is different every day. A full moon is when it's at its brightest and it's a full circle.

Bri: Have you ever seen the moon when it's full?

Kids: Yeah.

Yes, I've seen thousands of times.

Bri: What does it look like?

Kids: I think the shape of it, it's a circle, and it's a bit grey and white.

A head.

It's like it's a pumpkin.

The moon when you see it in space, it looks like that we have dark grey and light grey.

It's to be flat, then it can be a cookie.

Bri: Well, I can see that. The moon does look a bit like a cookie and the chocolate chips could be the dark spots on the moon.

Kids: Yes!

Bri: But it's not always a full moon.

Dewayne: No. During a new moon, you cannot see the moon at all during the night.

Kids: It's gone!

Because the moon, it goes to sleep.

Yeah.

Dewayne: Sometimes the moon looks like a crescent shape and we can just see a little sliver starting to light up.

Bri: Have you ever seen that tiny little sliver of moon in the sky?

Kids: I can see it.

Looks different. The moon is very thin.

It was like a banana shape.

A little moon.

Dewayne: It's always changing.

Bri: Wow. It's been doing that for a really long time, right?

Dewayne: Guess how old the moon is.

Kids: It's 1000 old.

I think it's 29.

20 hundred million.

And the moon is about 20.

Older than my mum.

Bri: Okay. I'm counting on my fingers. Four, five, six. Okay, I think my guess is 4 billion, maybe 4 billion years old?

Dewayne: That's correct.

Bri: Are you kidding me? That's older than dinosaurs.

Dewayne: That's right. I'm not joking. It's totally true. It's so old.

Kids: Yeah, older than my grandparents.

Bri: Way older than your grandparents.

[Kids giggle]

Kids: I think they are older.

[Slow choir music, owls hoot]

Bri: So Sebastian, the reason we can see the moon in the day sometimes is because the sun shines onto it, making it bright, but we can only see it sometimes because the moon is always moving across the sky and changing from dark to light. So the next time you look up into that sky, look out for that beautiful moon and just think that that moon has been playing a big game of hide and seek with earth for over 4 billion years. That's a really long time...Oh I think I can see it just over there.

Dewayne: That's our moon.

Bri: Wow.

Dewayne: Gosh, isn't that just beautiful?

Bri: Yep, it sure is.

Bri: Imagine This is produced by me, Brianna Peterson, and is a co-production between ABC Kids Listen and The Conversation. You can find more episodes of Imagine This, plus a range of music and stories for young children on the ABC Kids Listen app.

[Owl hoots]