

Brains On (APM) | Why can't we remember when we were babies? 01G9DHTS9SC36RZ49PCSYXSE8G

MAX: You're listening to "Brains On," where we're serious about being curious.

ARIA: "Brains On" is supported in part by a grant from the National Science Foundation.

[DRAMATIC MUSIC]

CREW: Next week on "The Young and the Toothless"--

LIAM: Olivia?

OLIVIA: Yes, Liam?

LIAM: I just wanted to say, thanks for coming to my first birthday last week.

OLIVIA: You had been through a lot that week. And besides, my mom had me strapped to her chest. So I didn't really have much of a choice.

LIAM: Last week was hard.

OLIVIA: Oh, do you want to talk about it?

LIAM: [SIGHS] I don't know. What else is there to say? My gums were aching as tiny pieces of bone ripped through my flesh.

OLIVIA: Ugh! My dad calls them teeth.

LIAM: And my mom disappears regularly. Like, one minute she's there and then, poof, nowhere to be seen. And then she comes back, and has the audacity to just say, "peekaboo?"

OLIVIA: How dare she.

LIAM: And to top it all off, the dog ate all the Cheerios I threw on the floor. I was saving those for later.

OLIVIA: Oh, Liam, that's so hard. But someday, when we're 10 years old, we'll look back on this week and laugh. We'll remember it so clearly, every detail. I promise.

CREW: Will Liam's mom cool it with the disappearing act? Will the icy teething rings help? Will Liam and Olivia remember any of this when they're 10? No. They absolutely will not. Tune in next week for "The Young and the Toothless."

[THEME MUSIC]

MOLLY BLOOM: You're listening to "Brains On" from APM Studios. I'm Molly Bloom. And my co-host today is Max from Sharpsburg, Georgia. Welcome to the show, Max.

MAX: Hi, Molly.

MOLLY BLOOM: And, Max, you sent us a great question which inspired today's episode.

MAX: Yeah, I wanted to know why we can't remember things from when we were babies.

MOLLY BLOOM: Yeah. We get this question a lot.

EVAN: My name is Evan. My question is, why can't we remember things from when we were babies? I thought of this question because I wish I could remember things from when I was a baby.

MOLLY BLOOM: So, Max, I am curious. What got you thinking about this?

MAX: I was thinking of this because people talk so much about when I was a baby. And I was wondering why I couldn't remember.

MOLLY BLOOM: So do you have any ideas why that might be that we can't remember that far back?

MAX: Maybe our brain was too busy learning how to walk and talk.

MOLLY BLOOM: Hmm, that's a really, really good thought. Is there anything that you wish you could remember from when you were a baby that you can't?

MAX: I wish I could remember the day I was born.

MOLLY BLOOM: Yeah. That would be cool. What do you think-- that would probably be a lot of new sights and sounds. That's a big change. What is your earliest memory that you can remember?

MAX: The earliest memory I could remember was when I painted my face, my eyebrows, and my hair blue with my mom's nail polish.

MOLLY BLOOM: [LAUGHS] Oh, Why did-- so how did you get that idea?

MAX: With my sister.

MOLLY BLOOM: [LAUGHS] Is your sister older or younger than you?

MAX: 18 months older.

MOLLY BLOOM: OK. So was it her idea?

MAX: I don't really remember that much of how the idea was. But I remember that I painted.

MOLLY BLOOM: [LAUGHS] So those nail polish paint brushes are tiny, so that must have taken a long time.

MAX: I didn't paint my whole hair.

MOLLY BLOOM: Oh, OK.

MAX: I painted strands.

MOLLY BLOOM: I see. So you painted-- you said you painted your face?

MAX: Yeah.

MOLLY BLOOM: Like, your whole face?

MAX: Not my whole face, but some parts.

MOLLY BLOOM: Got it. How old were you when that happened?

MAX: I was three years old.

MOLLY BLOOM: And how did your parents react?

MAX: My dad had to shave off my hair to get the paint off.

MOLLY BLOOM: [CHUCKLES] Oh, dear. Is that a thing you did again ever?

MAX: No.

MOLLY BLOOM: [LAUGHS] It was a one-time deal?

MAX: Yeah.

MOLLY BLOOM: So now when you smell nail polish, does it remind you of painting your face?

MAX: Sometimes.

MOLLY BLOOM: And does your sister remember this too? Do you guys talk about it?

MAX: Yes.

MOLLY BLOOM: What is her memory of it? Do you know?

MAX: She painted her hair and her eyelids.

MOLLY BLOOM: Oh, gosh. [LAUGHS]

MAX: And she had to go to school with her hair painted.

MOLLY BLOOM: Oh, man. So when you think of this memory of the painting of the face, what is, like, the feeling you remember from it?

MAX: Getting in trouble.

MOLLY BLOOM: Mm. My earliest memory is from when I was four years old. I fell off a porch swing at my aunt and uncle's wedding. And then the swing hit me in the head. And it was not fun.

MAX: Ouch.

MOLLY BLOOM: Yeah. Yeah. And, you know, I think it was very memorable for me because my parents weren't around at that moment. And so it felt really scary that I hit my head and I didn't know where my parents were. So it was pain, and fear, and I guess I felt overwhelmed by all of the wedding stuff, so a lot of feelings that day.

But, yeah, so that four-year-old memory is about as far back as I can remember. And there is a special name for that phenomenon that you and I are talking about. It's called infantile amnesia. And "infantile" means infant or baby. And "amnesia"--

MAX: That's when you forgot something or lose memories.

MOLLY BLOOM: Researchers also call this childhood amnesia because, for most of us, we really can't remember anything before we were three or four years old. Although, it differs from person to person.

MAX: So this is something that everyone experiences?

MOLLY BLOOM: Right. But sometimes our memories can play tricks on us. Like, we think we're remembering something, but it's actually just a memory our brain has invented.

MAX: Maybe you've seen a bunch of photos from your first birthday. Oh, look at those chubby cheeks.

MOLLY BLOOM: Adorable. Yeah. And maybe your family has told you stories, sometimes the same ones over, and over, and over, like how you were so excited to have a cupcake for the very first time.

MAX: And you went bananas. You even got frosting in your eyebrows.

MOLLY BLOOM: And from hearing those stories and looking at those photos, you start to construct a memory for yourself. And you might think, oh, yeah, I remember getting frosting in my eyebrows.

MAX: But that's really just something you made up in your head.

MOLLY BLOOM: And that's perfectly normal too, but technically not a memory. Still, it's really weird that we don't remember anything from when we were babies.

MAX: Yeah. Especially because babies are like squishy little sponges.

MOLLY BLOOM: Totally. They absorb all sorts of information.

MAX: Like how to crawl, or walk, or climb up stairs.

MOLLY BLOOM: Or how to speak languages, or at least try to.

[BABY GIBBERING]

MAX: They learn how to eat mushy carrots.

[BABY GIBBERING]

MOLLY BLOOM: And how to throw them on the floor.

[BABY LAUGHING]

MAX: The list goes on and on.

MOLLY BLOOM: And if we didn't remember how to do all those things, we'd still be squishy, babbling, adorable, but useless blobs, right? So why is it that we have all of this knowledge, but we can't remember how we got here? It's a total paradox.

MAX: Make it make sense!

MOLLY BLOOM: This is quite the conundrum. I think we better go straight to the source-- a baby. Let's tune in with our producer Rosie Dupont.

MAX: Live from New York, it's Rosie and a baby!

ROSIE DUPONT: Hey, Molly and Max, Rosie here with my esteemed guest and interviewee, Adira, the baby.

ADIRA: [GIBBERISH]

ROSIE DUPONT:I couldn't agree more, Adira. Memories are important, which is why we'll be diving deep into some of your most prized memories today. So, tell me, Adira, what is your most vivid recent memory?

ADIRA: [GIBBERISH]

ROSIE DUPONT:Your second birthday party? Amazing. Paint a picture for me.

ADIRA: [GIBBERISH]

ROSIE DUPONT:Wow. That is so many presents. And ice cream cake is pretty much the best.

ADIRA: Yes. [GIBBERISH]

ROSIE DUPONT:You felt bad for the clown? [CHUCKLES] Why?

ADIRA: [GIBBERISH]

ROSIE DUPONT:Their white face paint is creepy. What is the deal with that? Anyway, I'm running out of time here. But since you've got your finger on the pulse, I've got to know. What do you think about inflation?

ADIRA: [GIBBERISH]

ROSIE DUPONT:Pain at the gas pump is a major concern. And, yeah, we need to curb our addiction to fossil fuels and make the transition to renewable energy, like, yesterday.

ADIRA: [GIBBERISH]

ROSIE DUPONT:[SIGHS] OK. Well, this has been a pleasure-- Adira, the baby, everyone--

ADIRA: [GIBBERISH]

ROSIE DUPONT:--armchair economist and memory analyst.

ADIRA: [GIBBERISH]

MAX: Thanks Rosie and Adira.

MOLLY BLOOM: Wow. I could listen to Adira all day.

MAX: Totally. But I'm not sure she really answered our questions.

MOLLY BLOOM: You're right. I think it's time to bust out the goo-goo goggles.

MAX: The goo-goo what now?

MOLLY BLOOM: OK. Hear me out. To understand a baby, you must be a baby. And to be a baby, you got to wear these goo-goo goggles. They're the latest in BR technology.

MAX: BR? I'm guessing that stands for Baby Reality?

MOLLY BLOOM: You've got it. It's like VR, but so much cuter. OK. Let's turn these on, starting off in newborn mode.

[WHIRRING]

MAX: Whoa. Everything's so blurry. Molly, it's like you turned into a fuzzy blob.

MOLLY BLOOM: You too. Right after you're born, your eyes are still developing, so everything looks flat. And you can only see about eight to 10 inches in front of you.

MAX: Yeah. I can tell the difference between dark and light, but I can only see red and gray. Is that normal?

MOLLY BLOOM: Yes. The first color newborns are able to see is red. Around two months, you can start to tell the difference between reds and greens. And then a few weeks later, you start to see blues and yellows.

MAX: Whoa! This is awesome. Things are getting a lot less blurry and more 3D.

MOLLY BLOOM: Right. Let's dial this up a couple of months.

[WHIRRING]

MAX: Awesome! I can hold up my own head. Look at me! Look at me! Look at me! And, wow, I can roll over. Wee!

MOLLY BLOOM: By six months, your vision is more or less fully developed. Things also sound different. Listen.

[CLICKING]

[MUFFLED VOICES]

MAX: Cool! It's like you're speaking another language.

MOLLY BLOOM: Well, to a baby, that's exactly what's happening. Your sense of hearing is already fully developed. I mean, you were even listening in the womb. But now that you're out in the world, even though you can hear these sounds, you haven't figured out what they mean or why they're important. But that won't stop you from babbling like you know what's going on.

MAX: Bah, bah, bah, bah, bah, bah. Yeah, it's fun to babble. You know what else is fun right now? Grabbing stuff!

[RATTLING]

Grabby, grabby, grabby, grabby, grabby.

MOLLY BLOOM: Yeah. Before you know it, you are super active, babbling, crawling, grabbing, grabbing everything and putting it in your mouth.

[HEAVY FOOTSTEPS]

MAX: Mm, shoelace. Hey, who's that giant coming towards us?

RUBY GUTHRIE: Molly? Max?

MOLLY BLOOM: It's Ruby! Ruby, when did you get so tall?

RUBY GUTHRIE: I have no idea what you're talking about. I'm pretty sure I'm the same height as usual. But what's on your heads?

[GASP] Are those the new goo-goo goggles?

MOLLY BLOOM: Yep, Max and I are trying to figure out why we can't remember things from when we were babies.

RUBY GUTHRIE: Uh, yeah, I know, Molly. You asked me to look into that last week.

MOLLY BLOOM: Oh, yeah, I totes forgot.

RUBY GUTHRIE: All good. I'll explain more right after this episode of "The Young and the Toothless." I got to find out what happens to Mr. Snuggles. I'm on the edge of my seat!

MOLLY BLOOM: OK. Sounds good. Ugh! I'll take these off.

MAX: Until next time, goo-goo goggles.

[DEEP VOICE SINGING IN ITALIAN]

(CLEARS THROAT)

MOLLY BLOOM: Hey, you know, I may not remember my first steps, but I never forget this. It's time for the--

[WHOOSHING]

CREW: (WHISPERING) --mystery sound.

[GRINDING]

MOLLY BLOOM: OK. Max, what is your guess?

MAX: It sounds like grinding things.

MOLLY BLOOM: Hmm. What kind of material does it sound like it's made out of?

MAX: Like a type of rock or wood.

MOLLY BLOOM: Hmm, excellent, excellent. Well, we will hear it again a little bit later and give you another chance to guess right after the credits.

MAX: So stick around.

[THEME MUSIC]

We're working on an episode all about stress.

MOLLY BLOOM: Stress is, well, stressful. And the way we experience and deal with stress is super different from person to person. So we want to know, what does stress feel like to you? What does it feel like in your body?

So, Max, when you get stressed, what does it feel like in your body?

MAX: I feel angry or upset, and I want to scream.

MOLLY BLOOM: Hmm, me too. So what do you do to help yourself feel better?

MAX: I ride my bike or jump on the trampoline outside.

MOLLY BLOOM: That sounds really good. So it's like being active and being outside is a helpful thing.

MAX: Yeah.

MOLLY BLOOM: Awesome. Well, listeners, send us your ideas at brainson.org/contact. While you're there, you can send us mystery sounds, drawings, high-fives, and questions.

MAX: Like this one--

HOLDEN: Hi, I'm Holden.

ARIA: Hi, I'm Aria.

LILA: Hi, I'm Lila.

ARIA: We're from Wisconsin. And we want to know, can dogs be allergic to cats?

MOLLY BLOOM: You can find an answer to that wonderful question on our "Moment of Um" podcast. It's a daily dose of facts and curiosity you can find wherever you listen to "Brains On."

MAX: Just search for "Moment of Um."

MOLLY BLOOM: And keep listening.

[THEME MUSIC]

[DRAMATIC MUSIC]

CREW: When we last saw Olivia and Liam on "The Young and the Toothless"--

OLIVIA: Liam? Liam? Where is Mr. Snuggles?

LIAM: What do you mean, Olivia?

OLIVIA: You heard me. Where is Mr. Snuggles?

LIAM: I can't tell you.

OLIVIA: Tell me!

LIAM: No!

OLIVIA: Out with it!

LIAM: Fine. Your dad put him in the washing machine.

OLIVIA: Mr. Snuggles!

[MUSIC PLAYING]

(SINGING) Brains on, on, on.

MAX: You're listening to "Brains On" from APM Studios. I'm Max.

MOLLY BLOOM: And I'm Molly. And we're joined by our pal, Ruby Guthrie.

RUBY GUTHRIE: Hiya, Molly and Max. Don't worry. I'm all caught up on "The Young and the Toothless," so--

MAX: No spoilers.

RUBY GUTHRIE: Oh, OK, OK. All I'm going to say is Mr. Snuggles was not where you expected him to be. But back to childhood amnesia-- it seems like you have a pretty good grip on babies. So let's think about memory for a second. Maestro, a little memory music, please?

[MUSIC PLAYING]

Ah, thank you, maestro. So, the memories you're wondering about-- those are long-term memories, the kind of information we store away for months, years, even decades. One type of long-term memory is called procedural memory, which is remembering how to do stuff, like learning how to crawl, or walk, or talk, or use the toilet.

MAX: Kind of like muscle memory.

RUBY GUTHRIE: Exactly. And once you learn those types of things, you can usually remember how to do them automatically without even thinking about it, same as riding a bike--

[BELL RINGING]

--or playing a musical instrument.

[PIANO NOTE]

There's also declarative memory, which is when you remember facts or events, kind of like trivia. It's like you're declaring, hey, I know this thing, and I'm here declaring all about it. This could be general facts about the world, like the capital of Idaho is--

MAX: Boise.

RUBY GUTHRIE: Correctamundo. But it could also be about personal events or experiences, like what you had for breakfast yesterday.

MOLLY BLOOM: A stale chocolate croissant.

RUBY GUTHRIE: And how you felt about that breakfast.

MOLLY BLOOM: Meh, not great.

RUBY GUTHRIE: Fair enough. And these declarative memories aren't automatic like walking, or talking, or eating. Instead, we have to actively recall them in our brains. We set the scene and remember the details of the event-- the who, what, when, where, why, and how on Earth did we feel about all of it?

MOLLY BLOOM: And it's those types of memories that we can't seem to remember from when we were babies.

RUBY GUTHRIE: Right. And that's something scientists and researchers have been studying for almost 100 years. To learn more, I talked to Zsuzsa Kaldy.

ZSUZSA I'm a Professor at the University of Massachusetts Boston. I study how babies and toddlers remember.

KALDY:

RUBY GUTHRIE: So there is no one reason why we can't remember when we were babies or really little kids. But there are a couple of different theories or ideas that researchers like Zsuzsa have.

ZSUZSA One is something that's not very surprising, which is that our whole brain during this period is developing

KALDY: tremendously. So there are these systems that underlie our memory functions. These regions are just simply not very mature at these early ages, and they take some time to develop.

RUBY GUTHRIE: It might seem obvious, but baby brains are still pretty fresh, especially the parts of your noggin that process and recover memories. Some of them take years to develop. So that's one reason.

ZSUZSA Reason number two is something that if we think about how we recall events, maybe, it makes a lot more sense.

KALDY: And that is when we recall events from our life, what we recall is really a story.

RUBY GUTHRIE: These are a type of declarative memory,

MOLLY BLOOM: Like when I got hit in the head by that swing and it really hurt.

RUBY GUTHRIE: Totally. And you can tell that story because you understand language, a skill that's obviously still developing when we're babies, and toddlers, and little tykes, and that affects our memories.

ZSUZSA Now, when we create memories-- when we experience events very early on, our language system is not very well

KALDY: developed yet. So we may remember some of those events, but at that time we don't encode them using our language. And later, when we try to remember them, we don't have the words. We don't have the verbal memories that are associated with that event.

RUBY GUTHRIE: Turns out it's really hard to tell a story if you don't know how to talk. Since your brain doesn't understand language yet-- even though you may have created a memory-- you have no way of explaining it or filing it away for later.

And that brings us to our third theory, which is baby memories just aren't as detailed as when you're older.

ZSUZSA So imagine you have gone to a birthday party. And there were balloons. And there was a cake that was pink and

KALDY: had multiple layers. And, you know, your best friend got a guitar. And let's say all this happens when you're five years old. You may remember all these details.

RUBY GUTHRIE: Yeah. Your five-year-old brain might sound a little something like this.

ARIA: That was an epic party. There was pink cake, and balloons, and all my friends were there. And my BFF got a guitar.

[GUITAR RIFFING]

(SINGING) [INAUDIBLE]

ZSUZSA But when the same birthday party with the same events happens when you're three, you may remember that we

KALDY: went to a birthday party, but you don't remember all those details about the guitar or the color of the cake.

LILA: I went to a party, party, party. What is this thing with strings? What happens if I hit it?

RUBY GUTHRIE: So, according to this theory, it's not that you can't remember something. There is just less information to remember in the first place. Your three-year-old brain might remember a party, but not the flavor of the cake or the color of the guitar. Since those memories aren't super strong compared to when you're a bit older, they're harder to remember later on.

ZSUZSA It's always very important to keep in mind what's the function of memory, and why we are trying to remember.

KALDY: For a two year old or a three year old, it's not a problem if you forget those details about someone's birthday parties. You're not really motivated as a little kid to retain all that.

MAX: That makes sense. Babies have different brains and priorities.

MOLLY BLOOM: Yeah, when you're a baby or a little kid, you're taking in so much of the world around you. It's important to remember what your parents look like or how to eat. But it's OK if you forget your first birthday party.

RUBY GUTHRIE: That's what family and photos are for.

MOLLY BLOOM: Totally. Thanks, Ruby.

RUBY GUTHRIE: Any time.

MOLLY BLOOM: Now, who wants to put on the goo-goo goggles and play peekaboo?

MAX: You're on.

MOLLY BLOOM: Let's do it.

[WHIRRING]

OK, OK, OK. Ready? Peekaboo!

MAX: Ah! That's bonkers!

MOLLY BLOOM: Again! Again! [LAUGHS] Wait. Now-- now do me, do me.

MAX: Peekaboo.

MOLLY BLOOM: Whoa! [CHUCKLES] Whoa! That's crazy.

[THEME MUSIC]

Childhood amnesia is when you can't remember when you were a baby or a little kid. And it's something everyone experiences.

MAX: Babies can make memories. And they're really good at learning new things.

MOLLY BLOOM: There are two types of long-term memory-- declarative and procedural.

MAX: Scientists are still trying to figure out why we have childhood amnesia. And they have a couple of different theories.

MOLLY BLOOM: We know our baby brains are still developing how we process memories and how we use language. That could affect the way we remember. That's it for this episode of "Brains On."

MAX: This episode was produced by Molly Bloom, Rosie Dupont, Anna Goldfield, Ruby Guthrie, Marc Sanchez, Anna Weggel, and Nico Wisler.

MOLLY BLOOM: Our editors are Sanden Totten and Shahla Farzan. Our executive producer is Beth Perlman. And the executives in charge of APM Studios are Chandra Kavati, Joanne Griffith, and Alex [? Shafford. ?] This episode was sound designed by Eduardo Perez and mixed by Derek Ramirez. We had engineering help from Andrew [? Olson ?] and Cliff [? Bentley. ?] Thanks to Tim Pearce, Melanie Renee, Peter Ecklund, and Lulu.

"Brains On" is a non-profit Public Radio program. There are lots of ways to support the show. You can tell your friends about us, donate, buy our books or a sweet sweatshirt with the "Brains On" logo on it, all at brainson.org.

OK. Max, before we forget, let's listen to that mystery sound one more time. Here it is.

[GRINDING]

OK. Max, new thoughts? We heard grinding before, maybe. Do you have some new thoughts what it might be?

MAX: No.

MOLLY BLOOM: [LAUGHS] It's a hard one.

MAX: I still think it's grinding.

MOLLY BLOOM: Yeah. I don't know what it is either. So to me, it sounds almost like it's underground or something. It's kind of, like, echoey, maybe metallic.

MAX: I still think it's grinding.

MOLLY BLOOM: OK. What-- but, like, what's grinding? What's being ground, do you think?

MAX: Rocks, maybe.

MOLLY BLOOM: Mm-hmm. Like making gravel or something?

MAX: Yeah.

MOLLY BLOOM: Mm. I love it. All right. You ready to hear the answer?

MAX: Yes.

MOLLY BLOOM: OK. Here it is.

JERICHO: Hello, my name is Jericho. I live in New Jersey, and that was the sound of me rustling paper clips.

MAX: Paper clips?

MOLLY BLOOM: [LAUGHS] So not gravel being ground up, though. I totally agreed with you. I didn't-- that was a really tricky one. I guess it kind of sounded like--

MAX: I don't think paper clips sound like that.

MOLLY BLOOM: [LAUGHS] Maybe that grinding noise-- maybe it was, like, their air conditioning was loud, and that was the sound of just, like, the air conditioning plus paperclips being rustled around?

MAX: Maybe.

MOLLY BLOOM: That was hard. That was a really tricky one.

(SINGING) Buh, buh, buh, buh, buh, buh, buh, buh, brains on.

MOLLY BLOOM: Now it's time for the Brains Honor Roll. These are the incredible listeners who sent us their questions, ideas, mystery sounds, drawings, and high-fives.

Bianca from Charleston, South Carolina; Robbie from North Bay, Ontario; Alice and Leo from Greenfield, Nova Scotia; Elena from Hackettstown, New Jersey; Tanvi from Copenhagen; Akira from San Carlos, California; Grace from Flushing, New York; Colin and Katherine from Charlottesville, Virginia; Isabelle from Montreal; Eric from Hebron, Connecticut; Mikael from Dubai; Ria from New York City; Layla from Brantford, Ontario; Henry from Londonderry, New Hampshire; Ajay from Rye, New York; Daphne from Machynlleth, Wales; Sienna from Birmingham, United Kingdom; Carson from Brooklyn, New York; Grace from Cold Spring, New York; Russell from Boxford, Massachusetts.

Nora from Alamogordo, New Mexico; Zaina, Bushra, and Tasneem from Victoria, Australia; Lizzie from Kincardine, Ontario; Ravanthe from Visakhapatnam, India; Catherine from Houston, Texas; Vincent from Goshen, Indiana; Sochiata and Kaliana from Oakland, California; Claire from Cambridge, Massachusetts; Hadar from Portland, Oregon; Shannon and Lincoln from Gainesville, Florida; Sahishnu from Kirkland, Washington; Mizzie from Amsterdam; Oliver from Rochester Hills, Michigan; Samira from St. Louis; Adelaide, Annabelle, James, and Edward from McKinney, Texas; Ani from Doha, Qatar; Catarina from Sao Paulo.

Amelia and Thomas from College Station, Texas; Reece from Tusculumbia, Alabama; Natan and Kalen from Seattle; Avi and Leland from Piedmont, California; Brooklyn from Eagle Mountain, Utah; Akaia from San Diego; Nathaniel and Cora from Newtown, Pennsylvania; Josie from Rochester, Minnesota; Gabby and Cameron from Winter Garden, Florida; Daisy from Sylva, North Carolina; Harper from Moorpark; California.

Raymond from Brooklyn, New York; Declan from Bethesda, Maryland; Andrew from Wellesley, Massachusetts; Elena from Fort Worth, Texas; Talyn from San Jose, California; Sienna and Rohan from Devon, England; Lucy from Duluth, Minnesota; Mattie from Calgary, Alberta; Victor from Hastings, Minnesota; Juniper from Knoxville, Tennessee; Angel from Halifax, Virginia; Lucy and Isaac from Saint Paul, Minnesota; Samantha and Ryder from Carlisle, Massachusetts; and Avery from Sugarland, Texas.

[MUSIC PLAYING]

(SINGING) Brains on.

MOLLY BLOOM: We'll be back soon with more answers to your questions.

MAX: Thanks for listening.