

**ANNOUNCER 1:** You're listening to *Brains On*, where we're serious about being curious.

**ANNOUNCER 2:** *Brains On* is supported in part by a grant from the National Science Foundation.

**WOMAN 1:** OK. My turn. Let me think. OK, I got one-- a stripeless zebra.

**MARC** Easy. I imagine a zebra and erase the stripes. I mean, it's really just a white horse.

**SANCHEZ:**

[HORSE NEIGHS]

**WOMAN 1:** Oh, yeah.

**WOMAN 2:** OK, OK, OK, my turn. How about a cube of ice that's on fire?

[FLAMES CRACKLING]

**MAN:** Oh, yeah. That's good.

**WOMAN 1:** Hold on. Hold on. I can picture it. Yep, it's not even melting.

**MOLLY BLOOM:** Hey, Marc, Rosie, and Anna. How's the imagine-off going?

**MARC** Hey, Molly. Hey, Jayden. Sadly, it's a stalemate. We're all too good at imagining stuff to stump each other.

**SANCHEZ:**

**JAYDEN:** What's an imagine-off?

**WOMAN 1:** It's a contest where we try to think of something so impossible that you can't even imagine it, no matter how hard you try.

**WOMAN 2:** Like an inside-out donut or invisible glass, or Gungador talking at a normal volume.

**MARC** That last one was hard. But so far, we've imagined all of it.

**SANCHEZ:**

**JAYDEN:** Huh. Seems pretty easy to me. Have you tried a flat wave?

**WOMAN 1:** Uh--

**WOMAN 2:** A wave that's flat.

**MOLLY BLOOM:** A wave that's flat?

**JAYDEN:** Or what the world would look like to a one-dimensional dot?

**MARC** Oh, that's easy. It's just a--

**SANCHEZ:**

[RISING SOUND]

--hold on a second.

[RISING SOUND]

It's-- mm.

**JAYDEN:** Or how about an entirely new color?

[EXPLOSION]

**WOMAN 2:** OK. Yep, yep, you did it. You broke my brain.

**JAYDEN:** Or how about a puppy dog nose that isn't cute?

[DOG BARKING]

**MARC** Impossible. I can't do it.

**SANCHEZ:**

**WOMAN 1:** Hats off to you, Jayden.

**MARC** Yeah, you totally win the imagine-off. Good job. Allow me to present you with your trophy.

**SANCHEZ:**

**JAYDEN:** I don't see anything.

**WOMAN 1:** Of course not. It's imaginary.

[MUSIC PLAYING]

You are listening to *Brains On* from APM Studios. I'm Molly Bloom, and my co-host today is Jayden from Chicago, Illinois. Hi, Jayden.

**JAYDEN:** Hi, Molly.

**MOLLY BLOOM:** Today's episode is all about imagination.

**JAYDEN:** Imagine that.

**MOLLY BLOOM:** And this is perfect because, Jayden, you wrote to us with a question about imagination.

**JAYDEN:** Yeah. I wanted to know, where do we get our imagination from?

**MOLLY BLOOM:** That is a really great question. So I'm curious, what got you thinking about this?

**JAYDEN:** Well, I was mainly watching Harry Potter. It was the first time I was watching Harry Potter. And I was starting to think about how JK Rowling actually got an idea for this entire series.

**MOLLY BLOOM:** Yeah, there's so many details. It's such a full world that she created in her brain. It's pretty amazing. Do you ever imagine yourself in that universe?

**JAYDEN:** Yes, actually, a lot because I feel like all the different movies that were made, and in the Harry Potter area in Universal Studios, it feels real life. So I sort of imagine myself in that world and seeing what it would maybe be like.

**MOLLY BLOOM:** Do you like to imagine and create things in your brain?

**JAYDEN:** Yeah. I definitely imagine more fantasy-related things-- dragons, mythical creatures, definitely one of my top-tier lists.

**MOLLY BLOOM:** Do you write stories?

**JAYDEN:** I'm currently writing one now. I am still starting it. So it's only just begun. So I'm hoping to get it done by a couple of years.

**MOLLY BLOOM:** Is this a fantasy book with dragons and things like that?

**JAYDEN:** Probably not dragons, but it does relate to, I think-- I'm not sure if it's a mix between Greek mythology and another sort of mythology. I actually don't know. But I think it's a mix.

**MOLLY BLOOM:** And where would you say you think you find your inspiration when you're creating a story?

**JAYDEN:** Definitely a lot of thinking. So I actually take tiny bits of ideas from movies, TV shows, or any kind of cartoons I've seen, and then I combine them with real-world events. It's sort of a mix between the imagination of a world and actual reality.

**MOLLY BLOOM:** Yeah. A ton of our listeners are curious about this, too.

**LUCY:** Hi, *Brains On*. My name's Lucy, and I live in Glendale, California. And my question is, how does imagination work? How do we see things that aren't really there?

**GRANT:** My name is Grant from McKinney, Texas. Where does imagination and creativity come from?

**ELLIE:** My name is Ellie from Porter, Minnesota. My question is, how do imaginary friends work, and how does my imagination work?

[MUSIC PLAYING]

**MOLLY BLOOM:** Thanks to everyone for sending in your questions. I think most of us are familiar with the word "imagination."

**JAYDEN:** We use it to play pretend or make-believe.

**MOLLY BLOOM:** Maybe you daydream about being a superhero who can fly.

**JAYDEN:** Or create your very own universe, like a city made out of purple slime.

**MOLLY BLOOM:** You might even imagine a new friend.

**CHILD 1:** Hey, bestie. Let's get ice cream.

**JAYDEN:** Or maybe you imagine your mortal enemy.

**ENEMY:** [EVIL LAUGH]

**MOLLY BLOOM:** But what exactly is imagination? To get some answers, we talked to Tamar Kushnir.

**JAYDEN:** She teaches at Duke University.

**TAMAR KUSHNIR:** So I usually define imagination as thinking about anything that isn't in the here and now. So, for example, I like to drink coffee in the morning.

[COFFEE POURING]

So when I am looking at my coffee cup, right before I'm about to drink it, I'm not imagining it. I can really see it. It's really there.

[PUTS CUP DOWN]

I can hold it. I can feel it. I can smell the coffee. [INHALES]

But before I make the coffee, I wake up, and I'm just so tired. And I'm thinking, oh, wouldn't it be nice to have a cup of coffee and to smell it and to hold it and to taste it? That's me using my imagination.

**MOLLY BLOOM:** We usually think of our imagination as just a visual thing, creating a picture in our heads.

**JAYDEN:** Like trying to imagine a potato in a tuxedo. I can see it now. What a swanky spud.

**MOLLY BLOOM:** But imagination can use different senses like sound.

**JAYDEN:** Oh, Mr. Potato definitely has a fancy voice.

**MR. POTATO:** Enchanté.

**MOLLY BLOOM:** Or touch or smell.

**JAYDEN:** Yeah. I bet his tuxedo is super soft, and he smells really earthy.

**MR. POTATO:** My signature scent, au de dirt.

**MOLLY BLOOM:** Even taste.

**JAYDEN:** Mr. Potato is delicious. The tuxedo really adds some umami.

**MOLLY BLOOM:** Whoa. Did you just eat Mr. Potato?

**JAYDEN:** Molly, it's pretend.

**MOLLY BLOOM:** Oh, right.

**JAYDEN:** Plus, I just imagined another one.

**MR. POTATO:** Enchanté, encore.

**MOLLY BLOOM:** Charmed. But back to imagination-- it can engage every one of our senses.

**TAMAR KUSHNIR:** All of our senses that allow us to experience the world get involved in imagining new possibilities in the world.

**JAYDEN:** That's very cool, but I'm still wondering, where do we get our imagination from?

**TAMAR KUSHNIR:** Well, neuroscientists, people who study the brain, will tell you that it's complicated.

[MUSIC PLAYING]

We do know that imagination comes from our experiences. So, for example I can imagine my coffee because I know what coffee is. I've experienced drinking it before. So everything that and everything that you've learned in your life goes into making an imagination.

**MOLLY BLOOM:** Your imagination can be fueled by old memories but also things you remember watching on TV, seeing in movies, or reading in books. Basically, your brain has collected a library of different experiences, stories, and scenes to power your imagination. And so when you imagine, you take different parts from different memories and put them together.

**JAYDEN:** That makes sense. But sometimes I imagine something totally random and new.

**TAMAR KUSHNIR:** Imagination is also always combining bits of old information in new, interesting, and creative ways.

**MOLLY BLOOM:** Think of it like a collage, a picture made from lots of other pictures. Your brain is taking bits and pieces from different memories and experiences, then pasting them together, like imagining a potato in a tuxedo.

**JAYDEN:** Yeah. I know what a potato is, and I've definitely seen a tuxedo before. But I can't say that I've ever seen a potato wearing a tuxedo.

**MOLLY BLOOM:** Me neither. And that's a good point. If our imaginations are powered by old memories and experiences, how can we imagine something that doesn't exist or something that we've never done before?

**TAMAR KUSHNIR:** All of these things are just using what you know about the way the world really works to create a possibility of something that's fantastical or magical or not real out of the things that you know. When I was little, I used to wish I could fly. And then I actually used to dream flight all the time. And I think I probably dreamt it out of that little bit of falling experience.

Falling turned into flying in my mind. That's how I did it and, again, unique to me. I know a lot of kids like to imagine flying. I wonder how they do it.

**MOLLY BLOOM:** Maybe you watch birds fly and imagine what it's like to have wings. Or maybe you think of floating in water and then take away the water. That could be another way to do it. Jayden, have you ever imagined flying before?

**JAYDEN:** Yeah, I actually have. Back when I was seven years old, I always imagined myself flying just in the air, sort of like a bird, except I wasn't flapping. I was just-- it looked like I was doing this random stance where I had a knuckle sandwich preparing for a random villain.

**MOLLY BLOOM:** Oh, you're a superhero. So do you remember kind of what it felt like when you were imagining flying?

**JAYDEN:** I just remember that there was a really crazy and strong wind blowing.

**MOLLY BLOOM:** So is there anything that you've done before that might have that similar feeling that kind of feels like that imaginary idea of flying?

**JAYDEN:** Yeah. So I went parachuting in Korea a couple of years ago.

**MOLLY BLOOM:** Oh.

**JAYDEN:** And definitely, the flying wind sound probably came from there.

**MOLLY BLOOM:** Parachuting in Korea? Does that mean you-- did you jump out of a plane?

**JAYDEN:** You didn't jump out of a plane. We just kind of jumped off of a giant hill.

**MOLLY BLOOM:** Gotcha. So you jumped off a giant hill wearing a parachute?

**JAYDEN:** Yes. And I had a rough landing.

**MOLLY BLOOM:** Ooh, are you-- I'm glad you're OK.

**JAYDEN:** Yeah.

**MOLLY BLOOM:** But, yeah, so I guess I could see how that could kind of feel like flying, that falling through the air sensation. When you build that image of flying through the air, is there anything else you think you're combining with the parachuting?

**JAYDEN:** Probably Superman, definitely one of the starters for my whole story inventing craze.

**MOLLY BLOOM:** So this goes back to what Tamar was saying earlier, that our imaginations are made up of everything we already know. We might use that knowledge or those old experiences to recreate something in our heads.

**JAYDEN:** Or maybe we combine different pieces to imagine something totally new.

**MOLLY BLOOM:** Right. But there are some things we just can't imagine, like a new color or a new smell.

**JAYDEN:** But it's fun to try.

**MOLLY BLOOM:** Totally. In fact, maybe you all could challenge your friends and family to an imagine-off. See how many unimaginable things you can think of.

**JAYDEN:** And then give the most extravagant, imaginary trophies to the winners.

[TRIUMPHANT SOUND]

**MOLLY BLOOM:** So far, we've been thinking of imagination as being super silly and fun. And it definitely is. But Tamar says it's also important for the way we think, learn, and make decisions.

**TAMAR**  
**KUSHNIR:** We know that, without imagination, we can't think about the past. We can't plan for the future. And we can't learn anything new, because learning involves creating new things out of old.

**JAYDEN:** Wow. I've never thought about it like that. But it's true. If I had to make a decision like what socks I should wear, I imagine what would look best with my outfit.

**MOLLY BLOOM:** Exactly.

**TAMAR**  
**KUSHNIR:** And here's a fourth thing that we use our imaginations for, understanding other people. So in order for me to think about my best friend and what my best friend is thinking and feeling-- maybe she's sad, and I'm trying to figure out why or how I can help-- I can't see inside her head, right? So I have to imagine what must be going on for her.

**MOLLY BLOOM:** So imagination can also help us with empathy or understanding how someone else is feeling.

**JAYDEN:** Who knew imagination is so useful?

**MOLLY BLOOM:** Right. It helps us plan ahead, be more understanding.

**JAYDEN:** And also helps us picture a very charming potato in a tuxedo.

**MR. POTATO:** Me, your top tater? Oh, you're too kind.

**MOLLY BLOOM:** Yes, that, too.

**JAYDEN:** Thanks for talking with us, Tamar.

**TAMAR**  
**KUSHNIR:** Keep using your imaginations, and it was great talking to you all.

**DISTORTED** *Brains On, on, on.*

**VOICE:**

**MOLLY BLOOM:** Everyone's imagination is different. So one fun thing to try with your friends or family is to try to imagine doing something no one's ever done.

**JAYDEN:** Like flying or breathing underwater or becoming a tree.

**MOLLY BLOOM:** After you've all imagined it, talk about what it felt like. Did different people imagine the same things differently? What memories do you think you were using to create that collage?

**JAYDEN:** I imagine being a tree felt sort of like a statue. You're calm and zen. The wind would be blowing all across your face and arms. And then the squirrels and the birds would show up. And then the wind would kind of help you out. And then you just say, shoo, get out of here. I'm trying to grow.

**MOLLY BLOOM:** [LAUGHS]. The good parts and bad parts of that tree experience. I like it.

**SINGERS:** (SINGING) Ba-ba-ba-ba-ba-ba-ba-ba-ba-ba-ba. Brains on.

**MOLLY BLOOM:** I'm not imagining it. It's really time for the--

[DISTORTED SOUND]

**CHILD 2:** (WHISPERS) --mystery sound.

**MOLLY BLOOM:** Ready for the mystery sound, Jayden?

**JAYDEN:** Yep.

**MOLLY BLOOM:** Here it is.

[RHYTHMIC CLANKING]

What do you think?

**JAYDEN:** I actually have no idea. It sounded like some sort of plastic object.

**MOLLY BLOOM:** Hmm.

**JAYDEN:** I don't know. Maybe there's stuff falling into it, or it was falling into something. But I could definitely hear a little bit of plastic in that sound.

**MOLLY BLOOM:** Good ears. Yeah, so there's a lot happening there. There's something like some banging sounds. It does sound plasticky.

But we'll hear it again after the credits and give you another chance to guess, and we'll hear the answer. So stick around.

[MUSIC PLAYING]

We're doing a special episode all about cool space facts--

**JAYDEN:** --because there are just so many cool space facts.

**MOLLY BLOOM:** Agreed. In fact, space is so cool. We bet you want to sing about it. We'd love to hear your jingles for space.

**JAYDEN:** A jingle is a short, little, catchy song.

**MOLLY BLOOM:** Like this-- space, space, a wonderful place, got to wear a helmet on your face. Hey. Record your jingle and send it to us at [brainson.org/contact](http://brainson.org/contact). We look forward to having your jingle stuck in our heads for weeks. You can also send us mystery sounds, questions, or drawings at [brainson.org/contact](http://brainson.org/contact). That's where we got this question.

**EVA:** Hello. I am Eva from Nicosia, Cyprus. And my question is, why do we lose our baby teeth?

**MOLLY BLOOM:** We'll answer that on our podcast *Moment of Um*. You can subscribe to that wherever you listen to *Brains On*. It's a dose of facts and fun every weekday.

**JAYDEN:** And keep listening.

[MUSIC PLAYING]

You're listening to *Brains On* from APM Studios. I'm Jayden.

**MOLLY BLOOM:** And I'm Molly. When we think of imagination, we often think of imaginary friends. So, Jayden, did you have an imaginary friend when you were younger?

**JAYDEN:** Yeah. I used to have this imaginary friend named Bob.

**MOLLY BLOOM:** Bob?

**JAYDEN:** He was sort of a know-it-all who would sort of be like my notebook of math problems whenever I went to school. So I just imagined his desk right by mine. He's just helping me out with all the questions.

**MOLLY BLOOM:** Oh. Bob is so helpful. Do you still think about Bob today?

**JAYDEN:** Yeah, mainly been thinking about where he is now. And I could really use his help.

**MOLLY BLOOM:** Bob, Jayden needs you. Come back. Maybe he's helping someone else with their math problems right now.

**JAYDEN:** Probably.

**MOLLY BLOOM:** We asked our listeners to tell us about their imaginary friends. And here's what some of you had to say.

**CHILD 3:** I have had an imaginary friend. Her name is Rosie, and she was a bunny. She was white. And she really liked pink. That was her favorite color of all time.

**CHILD 4:** My imaginary friend is Shawn. And sometimes, he likes to be funny and nice. But sometimes, he likes explosions.

**CHILD 5:** My imaginary friend is [INAUDIBLE] and her two younger sisters.

**CHILD 6:** My imaginary friends were superheroes.

**CHILD 7:** And my imaginary friend is Wendy from *Peter Pan*. She often comes with me to the movie theaters to watch a movie. Or she comes with me just go to play.

**CHILD 8:** I had an imaginary friend when I was five. Well, technically, I had two since they were twins. Their names were Leo and Luna.

**CHILD 9:** When I was four years old, I had two imaginary friends named Quince and Sophie. They were brother and sister. I loved playing with them. We rode bikes together, played hide-and-seek, and had sleepovers.

**CHILD 10:** My imaginary friend was named Blobby, and he's a slime blob.

**CHILD 11:** I have an imaginary friend named Jane, and we love playing together. We like building LEGOs together and drawing together.

**CHILD 12:** My imaginary friend was named Mr. Toad, and he followed me around. And he liked to go to the beach with me.

**CHILD 13:** My imaginary friends is monsters. And they like to tell me all sorts of stuff.

**JAYDEN:** I could picture all of them in my head.

**MOLLY BLOOM:** I could, too. Thanks to Quincy, Kathy, Jackson, Eliana, Lulu, Katie, Jed, Sydney, Lucy, Kate, [? Maeve, ?] and [? Alaya ?] for sharing those friendships with us.

What's so cool about imaginary friends is they're so much more than just an image in our minds. They have personalities, likes, and dislikes. And sometimes, they can talk and even surprise the person imagining them. Now, that takes a lot of imagination.

**JAYDEN:** Yeah. I wonder why some people have them and others don't.

**GENE:** I can tell you.

**JAYDEN:** Who said that?

**GENE:** Me. My name is Gene.

**JAYDEN:** Where are you?

**GENE:** You can't see me because I'm imaginary. But, so you know, I'm a gopher in pleated khaki pants.

**MOLLY BLOOM:** "Ima-gene-ary" Gene.

**GENE:** That's what all my friends call me.

**JAYDEN:** Are you Molly's imaginary friend?

**GENE:** I would love to be Molly's friend. I've been a*Brains On* fan forever.

**MOLLY BLOOM:** Oh, awesome. I'd love to be your friend.

**GENE:** OK! But before we get any further, I've got to set something straight. Not all imaginary friends are friends. We call them imaginary companions.

**MOLLY BLOOM:** Who is we?

**GENE:** Experts in the field, of course. I'm pursuing a Ph-d in imaginary studies from Figment University. And I just did a fascinating interview with my professor about imaginary companions and why we exist.

**TRACY GLEASON:** We call them imaginary companions since only some of them are friends. Some of them are babies. Some of them are enemies. Or they're sometimes scary creatures.

To say "imaginary friend" implies that you are always friends with this person you've made up. But, in fact, that's not the case. Who's your professor

**GENE:** Dr. Tracy Gleason. She's a psychology professor at Wellesley College, and she studies imaginary companions, which come in all sorts of shapes and sizes, by the way.

**TRACY GLEASON:** Some of them are humans. Some of them are animals. Some of them are monsters or dragons. Or one little boy I know had an imaginary friend who was his shadow. Essentially, it's just a relationship with some thing or nothing that the child wants to have a relationship with.

**JAYDEN:** So imaginary companions can really be anything?

**GENE:** Pretty much. Dr. Gleason and I know so many amazing imaginary creatures.

**TRACY GLEASON:** I once met a little girl whose imaginary companions were a herd of cows, and they were different colors, and they were all babies. So she had to take care of these baby cows. And they lived in her room.

And so when people went into her room, they kind of had to tiptoe so that they wouldn't step on the cows.

**MOLLY BLOOM:** Aw. So adorable. You know, I actually had an imaginary friend named Mrs. Snail. She was a tiny snail who wore a bonnet and lived under the sheets on my bed.

**JAYDEN:** Um, why did you invent Mrs. Snail, Molly?

**MOLLY BLOOM:** I'm not actually sure. Why does anyone invent an imaginary companion, anyway?

**GENE:** Oh, so many reasons.

**TRACY** You might invent a friend to play with. You might invent somebody who's older than you who can give you advice.

**GLEASON:** You might invent an enemy so that you can experience what it's like to have someone really don't like who really doesn't like you.

And you might invent a friend who can't play with you so that you can kind of figure out what that's about. What does it mean if you have a friend who wants to play someplace else or isn't available to play with you at a particular moment?

You can kind of practice that a little bit. How would I handle that? How would I respond? What would that feel like?

**JAYDEN:** And then, if you wanted your imaginary companion to change their mind and play with you, you could.

**GENE:** Yes, because imaginary companions are your creation. And you're in control. And that's what a lot of people like about us.

**MOLLY BLOOM:** When I was little, I was the only person who knew how Mrs. Snail was feeling and what she wanted. I was sort of like the boss.

**GENE:** Exhilarating.

**JAYDEN:** I do like being the boss.

**GENE:** Oh, my boss is a lovely young lady named Isabella. She may only be four years old. But, boy, does she love telling me what to do?

**JAYDEN:** Does she play with you?

**GENE:** Actually, she prefers to talk about me, which is pretty common. A lot of kids don't play with their imaginary companions. They use us as conversation starters with their parents and other folks in their lives.

**JAYDEN:** Why not just talk about real things with their friends and family?

**GENE:** Well, as you know, things you imagine are made up of real experiences you've had or things you've encountered.

**JAYDEN:** Like a potato in a tuxedo.

**GENE:** Exactamundo. So kids use their imaginations to create us. And they give us all sorts of wants and needs and problems and feelings that they're working through or learning about in their lives. So actually, we are kind of real and very common. About two out of three kids have had an imaginary companion by the time they're seven.

**MOLLY BLOOM:** So it's totally normal to have one.

**GENE:** Oh, yes. And it's totally normal not to have one, too.

**JAYDEN:** But why do some people have them and some people don't?

**GENE:** Oh, right, your question. I asked Dr. Gleason about this.

**TRACY** There are very few differences between children who create imaginary companions and children who don't.

**GLEASON:** Children who have much younger siblings or have no siblings are a little bit more likely to create imaginary companions than children who have older siblings or a lot of siblings.

**JAYDEN:** So you're more likely to have an imaginary companion when there aren't as many kids at home to play with.

**GENE:** Yeah. And usually, people who create imaginary companions really like being around people and playing pretend. But plenty of kids without imaginary companions are sociable and imaginative, too. So there really isn't a formula.

Does that answer your question, Jayden? I hope so. I couldn't help but jump in because--

**JAYDEN:** Yes, yes. Thank you.

**MOLLY BLOOM:** So it seems imaginary friends are really helpful if you want to practice things like tough conversations or how to interact with others.

**JAYDEN:** And they let you feel like the boss of something, the expert, which is a good feeling, especially when you're little.

**GENE:** Exactly.

[CHIME]

Well, I've got to go iron my khaki pants before I head back to Figment University for class. Oh, such a thrill to talk to you both.

**MOLLY BLOOM:** Likewise.

**JAYDEN:** Bye, imaginary Gene.

**GENE:** Bye-bye.

**CHILDREN:** Brains on!

**JAYDEN:** We use our imaginations for fun and play. But lots of people also use them in their work.

**MOLLY BLOOM:** There's even some research showing that people who have super creative jobs, like artists and writers, tap into a special part of their brains when they're imagining things. And this helps them dream up things they've never experienced before. It's like they have stronger imagination muscles.

**JAYDEN:** But how can we strengthen our imaginations? To find out, we talked with someone who uses her imagination a lot.

**ADA LIMON:** My name is Ada Limón, and I am the host of the poetry podcast *The Slowdown*. And I am also the United States poet laureate.

**MOLLY BLOOM:** As poet laureate, Ada is our country's official poet selected by the Library of Congress, kind of like the MVP of poetry. And when she's working on a poem, there are certain things she does to help supercharge her imagination.

**ADA LIMON:** One of the ways that I make sure my imagination is engaged and enlivened is by making sure that there's silence around me. I feel like my imagination is much better if I can kind of dream in language and images. And so I have to make sure that the TV is off, the radio is off, and I can really pay attention to my own thoughts.

**JAYDEN:** Once she's in that quiet space, Ada starts to really listen to the world around her and open up her imagination.

**MOLLY BLOOM:** And she says once you start looking, you'll notice that there are new ideas and inspiration everywhere, even right outside your door.

**ADA LIMON:** Sometimes, I like to look out my window and look at the birds and imagine what it would be like to be able to fly or to have a beak or to not be able to use language. Or what would it be like to be a worm under the soil or a bat at night and being able to dart around in the darkness and maneuver with echolocation, et cetera? So I find, oftentimes, I get a lot of inspiration from animals.

[BIRD CHIRPING]

**JAYDEN:** Some people, like Ada, have very vivid imaginations.

**MOLLY BLOOM:** But it doesn't come easily to everyone. And a lot of people have a hard time imagining things. Maybe you have trouble picturing new things with your imagination. That can be tough for some people. Instead, you could try using words to imagine things, or you could make drawings or write stories.

**JAYDEN:** There are lots of ways to tap into your creative side.

**MOLLY BLOOM:** If you're looking to expand your imagination, try putting aside distractions like TVs and computers for a little while.

**JAYDEN:** Go outside, maybe to your neighborhood park, or on a walk. Sometimes, just moving your body and spending time in nature can help you be more creative.

**MOLLY BLOOM:** And, Ada says, let your mind wander. Or pretend you're in a completely different world. Like, what would it be like if you shrunk down to the size of a blade of grass and walked around your backyard?

**JAYDEN:** Or what if your closet was full of talking animals?

**MOLLY BLOOM:** That would be so cute. I'd want a closet full of talking prairie dogs. They're so cute. They stand on their hind legs, and they go, yip, yip. How about you, Jayden?

**JAYDEN:** I guess I would say talking snakes. So--

**MOLLY BLOOM:** Ooh.

**JAYDEN:** --I mean, the snakes could be friendly, and they would probably kind of snap maybe playfully, but not with actual violence, if anyone is annoying me.

**MOLLY BLOOM:** There is no right or wrong way to use your imagination. Everyone does it a little differently. And that's what's so amazing about our imaginations. They're all unique, just like us.

**JAYDEN:** Yeah. Imagination is powerful, free, and you'll never forget it at home. So you can dream up something amazing, anytime you want.

**DISTORTED VOICE 2:** Brains, brains, brains on.

**ANNOUNCER 3:** Imagine a place where you can pretend to study all day long, a place where you can come up with imaginary ambitions and pursue make-believe goals. You can do it all at Figment University, the premier place for imaginary studies. Come get a degree in an exciting field like daydreaming, make-believe, or pretend play with professors who are experts at making stuff up.

Our campus is more glorious than you can possibly imagine, or is it? Envision the most beautiful, advanced school ever. You got it? That's our school. It's all in your head.

Just listen to these Figment University students.

**STUDENT 1:** Deadlines used to freak me out. But at Figment, they don't exist unless you make them up.

**STUDENT 2:** Yeah. I used to pretend to like school. Now I get to pretend at school. Imagination rocks.

**ANNOUNCER 3:** Fictional expert May Dup once said, "If you're looking for a place to fulfill your wildest fantasies, there is no place like this one. It actually doesn't exist." Make it imaginary at Figment University.

[MUSIC PLAYING]

**JAYDEN:** Imagination is thinking about anything that isn't in the here and now.

**MOLLY BLOOM:** Our imaginations are powered by things we've already experienced, like memories, things we've read, watched, or listened to. Sometimes, we combine these things to create something new and fantastic.

**JAYDEN:** Our imaginations help us reflect on the past, plan for the future, and even understand each other better.

**MOLLY BLOOM:** Imaginary companions can also help us practice our social skills. They also might help us feel more in control.

**JAYDEN:** Everyone uses their imagination differently because our imaginations are personal and unique to us.

**MOLLY BLOOM:** That's it for this episode of *Brains On*.

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

**MOLLY BLOOM:** Our editors are Sanden Totten and Shahla Farzan. And our executive producer is Beth Pearlman. We had engineering help from Alex Simpson and Shawn Ballman. Special thanks to Stu Bloom and [? Suyan ?] [? Jung. ?] The executives in charge of APM Studios are Chandra Kavati, Joann Griffith, and Alex Schaffert.

**JAYDEN:** *Brains On* is a nonprofit public radio program.

**MOLLY BLOOM:** If you like the show, there are tons of ways you can support us. You can tell your friends about us.

**JAYDEN:** Go to [brainson.org](http://brainson.org) to donate to the show.

**MOLLY BLOOM:** Once you're there, send in your drawings.

**JAYDEN:** Or even your mystery sounds.

**MOLLY BLOOM:** Oh, the mystery sound. I almost forgot. Jayden, do you want to hear it one more time?

**JAYDEN:** Sure.

**MOLLY BLOOM:** All right. Here it is.

[RHYTHMIC CLANKING]

**JAYDEN:** Hmm. Definitely, I still hear the plastic or, like, tin sort of sound.

**MOLLY BLOOM:** Hmm. Plastic and tin.

**JAYDEN:** I'm actually thinking maybe it could be some sort of object that rolls, or maybe it sort of just goes back and forth, and the objects inside of it keep on dropping.

**MOLLY BLOOM:** All right. Your ears are very good at picking up details. Are you ready for the answer?

**JAYDEN:** All right.

**TENNY:** Hi, *Brains On*. My name is Tenny, and I live in Ho-Ho-Kus, New Jersey. The sound you just heard was me opening and closing a door that had seltzer cans in it.

**JAYDEN:** Oh.

**MOLLY BLOOM:** Jayden, you did amazingly well because that drawer in the fridge is plastic. There are aluminum cans inside. And they are rolling. So you got every element. You heard everything that was going on.

**JAYDEN:** I just had to connect it in the right way.

**MOLLY BLOOM:** Yeah, I am very, very impressed. That is-- yeah, your ears are very finely tuned. Nice work.

[OPENING AND CLOSING DOOR]

Now it's time for the *Brains* honor roll. These are the incredible kids who keep the show going with their mystery sounds, drawings, questions, and ideas.

[LISTING HONOR ROLL]

We'll be back next week with more answers to your questions. Thanks for listening.