

The Pop Ups. Stay seated. Three, two, one, ignition. Get ready for an adventure of magnificent proportion.

The Pop Ups. (Singing.) I don't know what you've been told, but we're in a golden age - so many discoveries that are jumping off the page. Wow in the world. Wow in the world. Wow in the world. Wow in the world. Wow in the world. Wow in the world. Wow in the world. Wow in the world.

The Pop Ups. With Guy and Mindy. We're on our way, Houston.

(Soundbite of cats.)

Guy. Is that ...

Mindy. Hee-yah!

(Soundbite of rumbling.)

Guy. Mindy!

Mindy. Guy Razzy! Easy there! Easy there, sleigh cats! Heel! Heel!

(Soundbite of rumbling comes to a stop.)

Guy. Mindy! What on earth are you doing up there?

Mindy. This, Guy Raz, is my latest, greatest musical invention!

Guy. Musical invention? What does it do?

Mindy. Well, I could tell you.

Guy. Uh oh.

Mindy. Or...

Guy. Mindy...

Mindy. I could...

(Soundbite of chainsaw-like ripcord, failing to start.)

Mindy. I could...

(Soundbite of chainsaw-like ripcord, failing to start.)

Mindy. Or I could ...

(Soundbite of lawn mower starting.)

Mindy. (Singing.) I could show you books and charts and a laundry list of parts. But where's the fun?

Guy. (Singing.) Well, it may not be fun, but it'll be informative.

Mindy. (Singing.) So let's start a new adventure and I'm very confident you're gonna thank me when we're done.

Guy. (Singing.) Yeah. That sounds fine, but we both know how this goes. Anything for science.

Mindy. (Singing.) Yup!

Guy. (Singing.) Next thing, I'm wearing crazy clothes. Just this once, how about we try a new approach? Before I wind up as a flamingo or an oversized cockroach

Mindy. (Singing.) Yeah, that's true that did happen. Guy Raz, let me show you my incredible contraption.

(Soundbite of thud.)

Mindy. (Singing.) You've got to see this thing in action. It turns the whole world into song.

Guy. (Singing.) Come on, Mindy! I know you. You love to put me in danger. Things start out strange and then get stranger. Then something always goes wrong!

Mindy. (Singing.) Eh, that's a valid point.

Reggie. Coo.

Mindy. (Singing.) But, there's nothing like a feeling of the universe revealing all its secrets face to face.

Guy. (Singing.) That's true.

Mindy. (Singing.) Ride a wow machine or pigeon you'll get more than just a smidgen of the thrill no book can replace!

Guy. (Singing.) Smidgen?

Mindy. (Singing.) So if you really wanna know...

Guy. (Singing.) I do!

Mindy. (Singing.) And you want your brain to grow

Guy. (Singing.) Well, I do Mindy, but we've got so much to go through. Can't you just tell me?

Mindy. (Singing.) You know I could, Guy Raz, but like the song says, I'd rather show you

(Soundbite of machine powering down and music ending.)

Guy. Mindy, what in the wow just happened to us!?

Mindy. It's my new invention Guy Raz. It turns speech into...

(Soundbite of pull ripcord.)

Mindy. (Singing.) Song! Yeah!

(Soundbite of thud, creaking, crash and cats meowing.)

Mindy. Agh! No, sleigh cats, come back! Come back here! Now how am I going to get my invention to the zoo?

Guy. The zoo?!

Mindy. Yeah. I wanted to test it out there, first, and I was so close! It's just over that hill up there. Wait, what are you doing right now Guy Razzy?

Guy. Eh...

Mindy. Why are you dressed like a stretched out tennis ball?

Guy. Mindy, I'll have you know that this is an official World-Power-Walking-Association leotard.

Mindy. In bright yellow! Hm. Well in that case you are perfectly dressed to help me drag this thing up the hill to the zoo!

Guy. Ok, fine!

Mindy. Boo-yah! Alright let me just reattach this acoustic amplifier...

(Soundbite of duct tape unrolling and tearing.)

Mindy. There we go. And now let's get you strapped in! Tadaa!

Guy. (Groans.)

Mindy., and now for me.

(Soundbite of velcro rustling and clicking.)

Mindy. And we're good to go! Pull!

(Soundbite of effort.)

(Soundbite of a machine slowly dragging up the hill.)

Guy. So Mindy, remind me again why you made this two ton musical machine?

Mindy. (sigh) Well, I have been obsessed with showtunes, so I invented something that would turn life into a musical!

Guy. Oh, ok, follow up question here. Why are we dragging this thing to the zoo?

Mindy. For the monkeys! I always try out my new material on them. If those monkeys at the zoo don't love my invention, no one will!

(Soundbite of door creaking open.)

Dennis. Mindy! Thank goodness it's you!

Mindy. Hey Dennis...

Dennis. Oh my, what is that?

Mindy. Well I–

Dennis. It looks like an unnecessarily large contraption rolling on four skateboards and being pulled by an angry tennis ball wearing a diaper?

Mindy. Yup.

Dennis. Oh. Well what does it do?

Mindy. It's a device that turns speech into ...

(Soundbite of electrical malfunctioning.)

Mindy. Uh-oh...

(Soundbite of gasp of air.)

Dennis. (Rapping.) What in the world--I don't understand what's happening.
Stutter steppin to the rhythm and I'm babblin'.
I should mention your invention causes tension.
But my comprehension of its dimension is really dazzlin'.

(Soundbite of burst of electricity and gasp of air.)

Dennis. That was incredible! I have to go work on my music now! Quickly!
To the hip-hop hamper!

(Soundbite of door closing.)

Mindy. Okay, let's get back to it. I told the monkeys I'd be there by five.

(Soundbite of machine dragging up the hill.)

Guy. Ok, Mindy but...

According to a recent study put out by the National Institute of Neurological Disorders and Strokes, monkeys have no understanding of music whatsoever!

Mindy. What? How do you even test something like that?

Guy. The researchers put both a macaque monkey and a human being through a device called an 'MRI machine'. And in this study, the researchers used this MRI scanner to see how human brains and monkey brains reacted when they heard two different types of sounds: pitch, or music.

(Soundbite of horns.)

Guy. And noise.

(Soundbite of clatter and rattling.)

(Soundbite of electrical malfunction)

Mindy. Uh-oh ...

Guy. (Singing.) Some sounds are music, something everyone enjoys.

Mindy. (Singing.) And other sounds are just sounds that we classify as noise.

(Soundbite of whistle and whoopie cushion.)

Guy. (Singing.) But when we hear music, it just lights up our brain.

Mindy. (Singing.) But noise just annoys us and we'd rather not hear it again.

(Soundbite of whistle.)

Mindy. (Singing.) So how can we tell which sound is which?

Guy. (Singing.) Well some have a quality known as musical pitch.

Mindy. (Singing.) Musical pitch? What does that thing do?

Guy. (Singing.) Well I could show you, but I'd rather sing you...

Mindy. (Singing.) Sing me?

Guy. (Singing.) Yes! Mathematical relationships of frequencies are what we hear as a musical note.

Mindy. (Singing.) Oh my!

Guy. (Singing.) And we put them into patterns we call 'melodies' like in almost every song that anybody ever wrote. Melodies.

Mindy. (Singing.) Melodies.

Guy. (Singing.) Melodies.

Mindy. (Singing.) Melodies.

Guy. (Singing.) Melodies.

Mindy. (Singing.) Melodies.

Guy / Mindy. (Singing.) Melooooodieesssss.

Mindy. (Singing.) So sounds with pitch can make a song and we all can sing along but with noises, you can't make music with 'em.

Guy. (Singing.) That's not true.

Mindy. (Singing.) That's not true? Then what else can noises do?

Guy. (Singing.) In a pattern, noise can make a rhythm, like this.

(Soundbite of rhythmic drum.)

Mindy. (Singing.) Oh, I like it! That's bonkerballs. Let's try putting them together!

Mindy / Guy. (Singing.) Music... and noise.

(Soundbite of whoopie cushion.)

Mindy / Guy. (Singing.) Music .. and noise! They can both work together in tandem thanks to the patterns and math our brain enjoys, unless it's totally random, in which case....it's really just.

(Soundbite of whoopie cushion.)

Mindy. Yesh! Anywho. So Guy Raz, let's go back to this study that you were telling me about earlier. So these scientists play two types of sounds for both the monkeys and the humans and then what happens?

Guy. Well, using that scientific device I was talking about before ...

Mindy. The MRI machine ...

Guy. Yup, they use the MRI machine to scan,

(Soundbite of scanning.)

Guy. And monitor a specific part of the brain called the 'auditory cortex.'

Mindy. Ahh, the auditory cortex. That's the part of the brain that's responsible for processing making sense of sounds, right?

Guy. That's right! So they used the MRI machine to scan that part of the brain and they found that in the humans, when they played noise,

(Soundbite of clatter and noise.)

Guy. Not a whole lot happened in the auditory cortex.

Mindy. But when they played them sounds in pitches, or music...

(Soundbite of musical horns.)

Guy. Their auditory cortex lit up like a Christmas tree of activity!

(Soundbite of electric scanning sounds.)

Mindy. Ok, so that's the humans. But what about the monkeys?

Guy. Well, with the monkeys, when they played them noise,

(Soundbite of clatter and noise)

Guy. They got a similar response to when they played noise for the humans.

Mindy. Uh-huh.

Guy. The difference is when they played the monkeys the pitches, or music,

(Soundbite of musical horns.)

Guy. (Nothing happened!

Mindy. Which means that the monkeys were not able to tell the difference between straight up noise and a musical note

Grandma G-Force. Hey! Who you callin' a monkey?

Mindy. (Gasp.) Gramma G-Force!

Grandma G-Force. Did somebody call my name?

Guy. Gramma G-Force, what are you doing out and about at this hour?

Grandma G-Force. Well, I've been beekeeping down at the local community center ...

Thomas Fingerling. You mean that was until the bees all went a-missin'. Now we gotta go find 'em again!

Mindy / Guy. It's Thomas Fingerling!

Thomas Fingerling. That's right! Now, unless you two youngsters have seen some bees buzzing around here, then I ... wah ... say. Whatcha got here? What is this gigantic gizmo?

(Soundbite of thud and electrical whirring.)

Thomas Fingerling. (Singing.)

Oh geez.

I've lost all the bees.

They flew away on a breeze.

Now I'm blue as a cheese.

(Soundbite of electrical burst and machine powering down.)

Guy. Uh...

Thomas Fingerling. (Coughing) What in the world wide web just happened?

Mindy. It's my new invention, Mr. Fingerling! It turns speech into song!

Thomas Fingerling. Hmm, speech to song, eh? Can it also find lost bees?

Guy. Uh.

Thomas Fingerling. C'mon, G-Force. If that thing ain't for findin' bees, we best keep looking.

Mindy. Bye, Gramma G-Force! Bye, Thomas Fingerling! C'mon Guy Raz, let's keep going.

(Soundbite of machine dragging up the hill.)

Guy. Ok Mindy, we're almost there, one last push!

Mindy. So Guy Raz, why aren't monkeys able to understand music like we do? I mean, we're similar in a bunch of other ways. We're both social animals. We're both able to read each other's faces.

Guy. Well Mindy, those same researchers have hypothesized that it might be because we humans are so good at talking! Yeah! Over the years, as a species, we've learned to communicate with each other by talking, and we use pitch and tone in our speech to convey different things and it's that kind of fine tuning, and the ability to detect slight changes in pitch and tone in people's voices that's been developed over tens of thousands of years and that's made us humans super sensitive to different notes and pitches.

Mindy. And in turn, it made us humans music aficionados!

Guy. Correctamundo!

Mindy. Huh. Well, looks like as far as testing out my new musical machine, the monkeys are out, and I'm gonna need some new test subjects of the human variety.

(Soundbite of creaking, snapping, metal crashing on the ground.)

Mindy. Uh-oh.

Guy. Mindy! What's happening?!

Mindy. Ah! The parking brake broke! The skateboards are skating!

(Soundbite of wheels rolling downhill.)

Guy. Oh no, Mindy! The machine's rolling back down the hill!

Mindy. Um! Uh! Uh! Gang way!

Mindy / Guy. (Singing.) Gang way!

Backup Singers. (Singing.) Gang way!

Mindy / Guy. (Singing.) Coming through

Backup Singers. (Singing.) Watch your back

Mindy / Guy. (Singing.) This thing's on a roll. It's out of control. Who knows who we might bump into.

Mindy. (Singing.) Gramma G-Force!

Mindy / Guy. (Singing.) Watch out!

Grandma G-Force. (Singing.) Lemme at that bucket a' bolts. These fists are waitin'. I'd fight that gadget if I could catch it but it's acceleratin' whoa!

Mindy. (Singing.) She's right! It's picking up speed.

Mindy / Guy. (Singing.) Gang way.

Backup Singers. (Singing.) Gang way.

Mindy / Guy. (Singing.) Coming through.

Backup Singers. (Singing.) Watch your back.

Mindy / Guy. (Singing.) This thing's on a roll and it's out of control. Who knows who we might bump into.

Mindy / Guy. (Singing.) Dennis?

Guy. (Singing.) Is that you?

Dennis. (Singing.) Yes, I could have told you so at the start of the show, it always ends in disaster. I better rush before I get crushed. Is it going even faster? We're doomed!

Mindy. (Singing.) He's right.

Mindy / Guy. (Singing.) Gang way!

Backup Singers. (Singing.) Gang way!

Mindy / Guy. (Singing.) Coming through!

Backup Singers. (Singing.) Watch your back!

Mindy / Guy. (Singing.) This thing's on a roll. And it's out of control. Who knows who we might bump into.

Guy. (Singing.) Thomas Fingerling?

Thomas Fingerling. (Singing.) Can someone please find my bees? There's a reward, I'll pay it cash. Hey! That machine's about to crash! Ahh!

Mindy. (Singing.) Guy Raz, we need to slow it down. What if it takes out half the town?

Guy. (Singing.) Well if it does I can tell you one thing

Mindy. (Singing.) What?

Guy. (Singing.) It'll be the key of a flat something.

Mindy. (Singing.) A flat something?

All. (Singing.) Gang way!

Grandma G-Force. (Singing.) Lemme at that bucket a' bolts. These fists are waitin'.

Thomas Fingerling. (Singing.) Can you please find my bees?

Dennis. (Singing.) I told you so

All. (Singing.) Gang way!

Grandma G-Force. (Singing.) Lemme at that bucket a' bolts. These fists are waitin'.

Thomas Fingerling. (Singing.) Please find my bees?

Dennis. (Singing.) We're all doomed!

All. (Singing.) Gang way!

Grandma G-Force. (Singing.) Lemme at that bucket a' bolts. These fists are waitin'.

Thomas Fingerling. (Singing.) Please find my bees?

Dennis. (Singing.) I told you so

All. (Singing.) Gang way!

Grandma G-Force. (Singing.) Lemme at that bucket a' bolts. These fists are waitin'.

Thomas Fingerling. (Singing.) Please find my bees?

All. (Singing.) Gang way!

(Soundbite of crash at the bottom of the hill.)

Dennis. Ow!

Mindy. Is...everyone...okay?

Thomas Fingerling. Yeah, your sing-songin thingamabobber don't look so good though.

(Soundbite of metal piece clunking on ground.)

(Soundbite of electrical spark.)

Guy. Wait a minute, Mindy, I think your musical machine might still be working.

Mindy. Well, only one way to find out...hee-yah!

(Soundbite of thump against machine.)

Guy. Oh no.