[*Gender Reveal* theme music plays]

**Molly:** Welcome to *Gender Reveal*. A podcast where we hopefully get a little bit closer to understanding what the hell gender is. I’m your host and resident gender detective, Molly Woodstock.

[*Gender Reveal* theme music ends]

**Molly:** Hey, everyone. Hope you’re all hanging in there. This week on the podcast, best friend of the show Z Griffler steps in to interview *Gender Reveal* grant winner Sam Long. Z and Sam talk about high school biology class, animal mating rituals, “queering” curriculums, and, uh, finding trans Nemo?

**Sam:** In *Finding Nemo*, what really would have happened when the mom died was that the dad would have changed sex.

**Molly:** But first, just a quick reminder that we. have. merch! At bit.ly/gendermerch. We got spooky ghost totes. We got gender detective shirts. We got *Gender Reveal* logo pillows for some reason. And stickers, stickers, stickers, stickers! In fact, we now have stickers of unofficial *Gender Reveal* mascot Rhubarb Fig McFightyFace Woodstock, a.k.a. Ruby. Uh, yeah, that’s just a sticker of an illustration of my cat. Why? Because *Gender Reveal* logo designer Michelle Leigh was like, “Hey, here’s an illustration of your cat. Put it on some die cut stickers. Put it in the merch store and donate the proceeds to the Okra Project,” and I was like, “Okay. Sure. I don’t care if anyone else buys them. I will buy one zillion and wallpaper my whole house with them.” If you don’t want a sticker with my cat – which, how dare you – you can also get stickers of all the other designs we mentioned. And, of course, these particular items will be going away in a few weeks, so grab anything you want while you can, and reach out if you want to design anything for the store in the future. Just a reminder, proceeds are evenly split between the designer and a non-profit organization of the designer’s choice. Anyway, you can find all of that, again, at bit.ly/gendermerch. But also, please don’t forget to support the show because we don’t make money off of any of that merch unless the designer decides that we do. So, please continue to support the show if you can and you’re able to and you’re willing to and you want to at patreon.com/gender. So many of you already do that and I am constantly blown away by your kindness, and generosity, and support. Thank you so much. And with that, it’s time for This Week in Gender.

[trumpeting news music]

**Molly:** This Week in Gender I wanted to share the breaking gender reveal news that we all deserve. On Thursday morning, a woman named Jenna… Karvunidis? Karvun—? Mhm, a woman named Jenna who posts under the name High Gloss and Sauce on Facebook wrote this Facebook post that I will now read to you in its entirety.

[“Entwined Oddity” by Blue Dot Sessions begins]

**Molly:** “A weird thing came up on Twitter, so I figured I’d share here. Someone remembered it was me who, quote, ‘invented’ the gender reveal party. I had written about my party on my blog and a parenting forum in July 2008. It was picked up and an interview with me was published in *The Bump* magazine and the idea kinda spread from there. I’ve got the article framed! Anyway, I’ve felt a lot of mixed feelings about my random contribution to the culture. It just exploded into crazy after that. Literally – guns firing, forest fires, more emphasis on gender than has ever been necessary for a baby [pause]. Who cares what gender the baby is? I did at the time, because we didn’t live in 2019 and didn’t know what we know now – that assigning focus on gender at birth leaves out so much of their potential and talents that have nothing to do with what’s between their legs. Plot twist, the world’s first gender reveal party baby is a girl who wears suits!” And then there’s a photo, of this woman and her family, including her ten-year-old wearing a suit. And it says, “If you want to see more of Bee’s looks, her Instagram is @bianca\_k\_actor. I run the account, so [laughs] if anyone tries to slide into a ten-year-old’s DMs, I will end you.” Okay, that’s the post. So, of course, I looked at this kid’s Instagram and, like, she’s a child, she gets to decide who she is, and who she dates, and who she likes, and how she identifies, and she can decide that at any time and change it as many times as you want, and it’s none of my business, but I just want to say that these photos do give off a powerfully queer and gender creative energy? And I’m just… so, so delighted by this turn of events. I really don’t have words for it but I just feel like we won something. I feel like we won gender reveal. The fight that I didn’t know we were having until right now. Okay, and I thought this segment was over, but now I’m rerecording more breaking news because in the last few hours, Jenna has done a ton of interviews and said some extremely good and powerful things that I need to tell you about? For example…

[background music fades out]

**Molly:** Quote, “I’m glad gender reveal parties brought joy to some people, but that joy has been at the expense of non-binary and trans people. Even if you say a problem doesn’t affect me personally, we should all have enough humanity to realize we don’t have to cause pain for marginalized people to have joy for ourselves. There are plenty of reasons to eat cake,” she goes on to say. “You can pick one that doesn’t reinforce an attitude of harm towards members of the LGBTQ community.” This is the happiest I’ve ever been. This has been… This Week in Gender.

[trumpeting news music]

[upbeat electro-pop background music begins]

**Molly:** Sam Long is a high school biology teacher in Denver, Colorado. He is a first-generation Chinese-American-Canadian, a third-generation scientist, and a first-generation trans man. Sam creates biology curriculum that affirms diverse identities, and allows all students to see themselves as scientists.

[background music fades out]

**Z:** In terms of gender, how do you identify?

**Sam:** I identify as a trans man. I use “he/him” pronouns.

**Z:** What excites you as an educator, and what excites you about science?

**Sam:** As an educator, I have the chance to have my students experience getting an education. Experiencing science in a much different way than I did, and that students had in the past. Traditionally, if you look at who is involved in science, who continues to study science after it’s not mandatory, that’s gonna be the kids that their parents were scientists, the kids that in some way or another felt like they belonged in science and they could do it and they were scientists. And traditionally, that’s not a lot of women, not a lot of LGBTQ people, and now that I’m a science teacher, I get to spend time thinking out exactly what can change that and how I can help more of my students see themselves as scientists.

**Z:** What was your experience growing up in the science class?

**Sam:** Science class when I was growing up was pretty standard, by the textbook. Things were right or wrong. Science wasn’t really talked about as a system of knowledge or something that is changing. Or, as a system of knowledge that has had any sort of bias in the past, which it certainly has. Coming from a family where my parents were scientists, we were kind of expected to learn it, go with it, and decide to continue with science or not. But, there wasn’t room for diverse identities. It was almost like, every chance I got to learn more about, for example, in biology, the fact that there are intersex people. The fact that there’s not just one biological thing that determines people’s development in terms of sex, that was something that I really gravitated to.

**Z:** What have your experiences been as a trans educator? Both an educator who is trans and an educator who creates education about trans identities?

**Sam:** I had a lot of concern when I started teaching about four years ago that it wasn’t gonna go well. When I entered teaching, my thought was, “Well, I’m not sure if I want to be out to my students.” I have the ability to not be out. I’m just read as a man, if a very young one. And pretty soon into that few weeks, I realized there’s no way that I’m gonna be able to connect with my students in the way that I want to and, and the way that they deserve to connect to their teacher, if I’m holding back that part of myself. So, the conversations with principals and with other staff about what that process looks like, coming out, I’ve had a pretty positive experience. In the time that I’ve taught here in Denver, in these four years, I’ve been at multiple schools and my principals have always been on-board with that. Given they didn’t know very much and so they wanted very much to learn what they needed to know about what it means that a teacher is trans. They saw the value in showing their students that diverse people can be successful as adults. Obviously, that’s very situated in Denver and these communities, and I know teachers in the same area that have had very different experiences with their school districts, and even with student and family responses. It really varies. We know of at least 15 to 20 trans educators in the Denver area, and that’s all thanks to the Trans Educators Network, which is a list sort of that my friend Harper Keenan put together. So we’ve been able to connect and we’ve been able to do a couple of panels at conferences locally to share what we’ve learned and what we need other people in the education community to learn from us.

**Z:** What challenges generally do trans educators face in the classroom and through administration?

**Sam:** The challenges that a trans educator will generally face are wanting to transition and the school community really doesn’t want it to happen, or really wants to decide how it’s gonna happen. Or, this would be more in the case of someone who has transitioned, wanting to come out to the school community and, for some reason, whether it’s the students are perceived as too young or the community is perceived as too conservative or not ready for it. Admin not wanting them to do that, or wanting to decide exactly how they do that.

**Z:** How can biology help frame the trans and gender diverse experience?

**Sam:** Biology is the study of life, and in a lot of, say, conservative rhetoric, it’s used as, “Trans people are going against biology because biology says that you are male or female based on your physical characteristics.” But if you go even just a little bit deeper, biology in no way affirms a binary of male and female, and it in no way supports that. There are huge areas of study in evolution, in genetics, that affirm and recognize gender diversity. One big way that I teach biology to include trans identities is in the genetics unit. You talk about DNA, you talk about chromosomes, and at some point, you’re gonna talk about X and Y chromosomes and how in a normal textbook, it would be, “If someone has XX, they’re a girl, and if they have XY, they’re a boy.” And when students learn it that way, they are being implicitly told that that’s it, that’s all you can be, and those are the only two things that could happen. The first thing that I do before we even have that discussion about X and Y chromosomes is make sure my students know the difference between sex and gender, that they understand that while we’ll be using terms, canonical terms, in biology, we need to be mindful especially when we’re talking about humans, that the way that somebody refers to themself is Number One. So, we have that discussion, we make sure that students know the difference. And then when we talk about chromosomes, we decide as a class, in order to speak inclusively, we’re going to be really precise with our language. So if we’re talking about, say, a gene mutation that occurs only on the Y chromosome, we aren’t gonna say, “This disease only occurs in men or boys.” We need to say, “It occurs in people with Y chromosomes,” because that’s the truth, that’s the precise definition. Students generally are very okay with that. They get that there’s a difference. I put up these statements that probably could be in any biology textbook, statements like, “We get 23 chromosomes from our mother and 23 chromosomes from our father, making a total of 46,” and I would ask students, “This is from a biology textbook. Is this really true? Does this apply to everybody? Is it inclusive?” And first, they’ll say, “Yeah, of course it’s true. We learned this in middle school.” And then they’ll start to think, “Okay, well, there are families where the people that contributed the DNA are not who they call the mother and father. There are same-sex families, there are families where the parents are transgender. And having students form a list of just how many people are excluded by this statement that’s often taken for granted. That’s a good start to having students think, no matter what we’re talking about in class, who is being included and who is not, and how can we use our language or use something that we know to change that?

**Z:** Would you say that biology as a field tends to support trans people?

**Sam:** It does, because the most common arguments to discredit trans people would be along the lines of, “Well, chromosomes make you male or female, and you can only be male or female ‘cause that’s the only configurations of chromosomes we have.” And if you look to any level of depth, neither of those is supported. Physical sex is determined not only by chromosomes, but on the precise genes that are on those chromosomes, and someone might have an entire chromosome and they’re missing one gene that changes their development entirely. And somebody may have an insensitivity to sex hormones. Even the way we name the sex hormones, testosterone is the male hormone, estrogen is the female hormone, that is completely erroneous because everybody has levels of both of those. And so, when we can push students to uncover more of that – and it’s not really hard to uncover, it’s not, like, this big secret that you get to once you’ve been learning biology for a long time – when we expose students to that, I get students that are trans and students that identify as LGBTQ, like, their heads perk up. Like, “Oh, we’re gonna talk about this, we’re not gonna talk about it in the simple way that is erasing my identity. We’re talking about it in a way that includes me.” And that’s what makes me really happy.

**Z:** How can teachers in all subject matters be more gender-inclusive?

**Sam:** For all teachers in all subject matters, their primary goal is gonna be to connect with their students and to make their students feel safe and represented. So, that would start with things like having all students introduce themselves with what name and pronouns they wanna use, and not making assumptions about that on the first day of school, not splitting up students – it seems ridiculous, but it’s actually common that they’ll say, “Okay, boys versus girls for a quiz game,” or whatever. There’s so many other ways to do that, and it’s not necessary to put trans students in a very awkward place, and also send the message that they aren’t welcome there, they’re not included. A lot of work has been done in regards to queer and trans literature, history – especially U.S. history has a lot of opportunities. Here in Denver, there’s an organization called the Trailhead Institute that does inclusive sex ed, puberty, and reproductive health, and they do trainings for teachers. So what Lewis, my partner in this project, and I wanted to focus on is, why is there nothing of that sort in biology? And, well, there is – we’ve been doing this work for a number of years – but nothing at the level that, say, language, arts, or history has.

**Z:** So what does it mean to you to queer a curriculum?

**Sam:** To me, to queer a curriculum means to examine the way something is traditionally taught and ask a lot of questions about it. Like, why is it taught this way? Who is being included and excluded by choice of words, by choice of focus or diagrams, and what is the effect of that? And if there is a negative effect on our students, what can we do to reverse that? The way it’s talked about often is, “Well, we want an inclusive curriculum.” Like, that would be what I hear most often, teachers asking, “How can I be more inclusive?” But I think it’s more than that, and we need to celebrate trans identities in class, and there’re definitely a lot of families or teachers, educators, who say, “Well, why would we need to celebrate that?” And biology, I can talk about a few really excellent areas where it’s come up and really furthered our curriculum. So, when we talk about natural selection, it’s gonna be the principles of, “Well, all organisms are—they’re overproducing their offspring, and then the most fit offspring for the environment get the most resources and survive and pass on their genes.” One area of that that we go deeper into is sexual selection. So, a typical way that would be taught is, “Well, some animal species that we’re familiar with, sex is a thing, and you have to find a mate in order to be reproductively successful.” So actually, if you go on Google and look at sexual selection, the first article that comes up is produced by a university in California, and is used a lot as a resource, as a reading for students. And it will say, “Well, it’s all about finding a mate. Here’s some different examples.” And they’ll give example of the elephant seal where the males have these enormous proboscis, and then they fight for harams of females. And they’ll give an example where a male cricket wants to give a sperm sack as a gift to a female and the bigger gifts you can give, the more likely you are to get chosen as a mate. And just with all the choices you have, that article and a lot of articles will pick not very diverse choices. They’ll always pick the ones where it’s, “males compete for females, females have mate choice.” And that’s really not all there is, and so, what I change this into, that article is really part of our curriculum we were given to teach, and I said, “I know that there are other examples and that’s—even if that’s a pattern, that’s not a rule, and we need students to know that that’s not a rule.” Because if you just teach the examples that affirm, kind of, stereotypical expectations of human males and females, then you are perpetuating misunderstanding, and you are not celebrating the diversity that exists in nature. So, in my class, we do look at the elephant seal, we do look at birds that do mating dances and in most bird species, it’s the males that do the mating dance and the females choose which dance looked the best, which mate looks the fittest. But, there are examples where it’s completely inverted, there are bird species where the males choose and the females compete, so then the females will be bigger in that species. There are examples where it’s really neither. The clownfish are a really popular example because they occurred in *Finding Nemo* and if that had been scientifically accurate, that story would have involved a sex changing fish, because the clownfish live in these communities where there is only one female and that’s the one that reproduces. If that female were to be killed or die for whatever reason, the largest male would chemically change, physiologically, into a female and become the leader of that group. So, in *Finding Nemo*, what really would have happened when the mom died was that the dad would have changed sex. So, students are fascinated when they hear that. They are a little surprised when we look at seahorses where males carry the embryos and they kind of stay in one spot while they’re gestating, while the females are able to travel further. And we also look at really obscure things, like the slipper limpet, which is a little snail-like thing on the ocean floor where it does have sex, male or female, but it’s not at all determined by genetics. It’s determined by where they fall on the ocean floor, whether they fall on bare ocean floor or on top of another slipper limpet. And you can kind of see why that is, because if you’re falling on another slipper limpet, you would want to be the opposite sex so that you have a mate. They can’t move very much, so where you land is kind of where you land. And so, what I did this year was I had some of the other teachers at my school record little snippets of video of them describing each example and I, we ran through them, and I had students complete a little chart saying, “Okay, what patterns are we seeing?” They would check under male or female for who’s competitive, who is competing for mates, who is choosy, who gets to pick between mates, and who tends to take care of the young, be the caregiver. And when they finish seeing these examples, they end up with a chart that shows, “Okay, out of the limited examples that my teacher gave me, there may be a trend, more species tend to have competitive males versus competitive females, but there’s no—by no means a rule.” And every single one of those little examples we looked at was most captivating to our students. They don’t want to hear the story that they’ve heard all along, they want to hear these different stories. And, in the end, the point of this lesson is to show there are a lot of ways to reproduce sexually. There’s not just one way to be successful by being either a big male or a choosy female. There’s many ways to reproduce and all that matters is that you’re passing on your genes in an efficient way. So I see that as a successful example of affirming students through biology curriculum, and showing that stereotypes – that in textbooks and in the canonical curriculum, the examples tend to get chosen to affirm those stereotypes – and to show that they’re not true. Historically, if you look at the way that science has developed over the centuries, science has always been a tool of who’s in power, and it’s been to their benefit to say, “There’s only been two sexes.” It’s been to their benefit to say, when faced with children who are born intersex, it’s to their benefit to say, “Okay, we need to change you into one or the other. There is only one or the other.” And, right now, we’re growing up with children who, I find, can readily accept that there’s not just a binary, and it’s not too complicated, it’s not confusing for them, as one might worry.

**Z:** So how do students generally tend to react to your gender-inclusive education?

**Sam:** One thing that I try to do is whenever we’re talking about anything that’s gender-inclusive, there are certainly lessons where it’s completely irrelevant, but when we do talk about it, I make sure they know that this is a real lesson. This is the curriculum, this is not a side conversation, we’re not doing this because I don’t wanna teach science today. This is science. Their reaction is generally, “Okay, this is something that I need to learn, just like anything else in the class, and hey, this is kind of interesting ‘cause this is maybe not what I learned in middle school life science, and this confirms more about the diverse people that I know.” And mostly all students, whether they are trans or LGBTQ, they understand it and are more curious about it than a typical lesson. Like, I could do a lesson about Punnett squares, which is—it’s interesting to be able to predict offspring, but if you do just very general examples, like, “Oh, we’re predicting people’s eye color” or made-up examples, that doesn’t tend to be as interesting to them as a lesson where we’re looking at all these diverse ways of reproduction. You’ve never heard of how a seahorse reproduces, and the fact that it’s different from human, the way that humans do it, you know, that must mean that there’s not just really one way of reproduction, although they all follow a pattern of passing on genes. So, I haven’t had any students say anything negative about it, and I’ve had a lot of students just ask tons of questions, and my response to that is usually, “That’s great, I’m so glad that you asked that.” If it’s something that I don’t really know enough about, I’ll say, “This is really important, let’s come back to it another time,” or ask them to share what they might have learned about it. I think about my trans students and, like, students that are involved in the GSA, whether or not they have come out as trans when we’re doing these lessons, ‘cause I don’t want them to feel on the spot. I don’t want them to feel like the lesson’s about them or that they have to say something. And some do, they really want to contribute, and that’s like their time to shine, but some just listen quietly like they always do. I have had LGBTQ students want to be more involved in that and learn more about that. And the first year I was teaching, it was more like an aside. I was like, “Well, by the way,” and said something that I really wanted to talk more about, and then a student stayed after, and I hadn’t really talked to him much before, but he really wanted to talk about—he said, “I believe that, the fact that I’m bisexual is also, has a genetic basis, that it’s not a choice.” And we talked a little bit about the theories that exist in evolution for how could homosexuality be a trait that still exists because at the very face of it, you are, you have a trait that’s preventing you from passing on your genes but there are a number of theories as to how that could ultimately benefit a population, the key part being “a population,” just because it’d be an individual who’s attracted to the same sex is not passing on their own genes, it could be that the role they play in the community, caring for the young that are related to them by some percent, ultimately increases fitness, but there are also other theories related to how homosexual traits may contribute to a male actually appearing more attractive to females of a species. We talked a bit about that, but that was—that student, like, stopping me after and saying, “Well, I wanted you to talk more about that, and let’s talk more about it.” That’s what got me thinking about doing more of this work. And so in the past few years that I’ve been able to develop it, I know at least that my students who are LGBTQ are as interested in science or more than my students in general with my very small sample size. And I think that’s to do with the way that I’ve taught biology, as well as to, kind of, my figure in the community as a trans teacher.

**Z:** Do you think it’s important for your students, both cis and not cis, to have a representation of just a trans person living their life, being a professional, being a teacher?

**Sam:** I think it’s definitely important that all our students see that representation, because trans people are part of the world, and my students might be brought up to the point where they enter my classroom, they might be kind of brought up to think that that’s not the case. But now it is, and it’s there in front of them every day. In biology, I think to teach what is not true, to teach what is oversimplified, like, “XX is female, XY is male, that’s it,” that is doing a disservice to our students, because we’re not preparing them with the language or the ideas to deal with the complex world. The real world. So, if somebody were to ask my students, “Okay, so you have your chromosomes, where did you get your chromosomes?” The way that we talked about it is, “We get our chromosomes from the egg and the sperm that made us.” We don’t say, “It’s from the mom and the dad,” ‘cause there’s so many situations in which that just doesn’t make sense, and that’s exclusive, and I’d like to think that my students are—that, that they know both ways it’s talked about, but they’re going out into the world, they know the precise and the rigorous language to talk about these biological processes.

**Z:** So how can we best respond to the idea that teaching young people about the existence of queer people is a sort of indoctrination?

**Sam:** There are definitely families, even educators who would say to me, “Well, why are you teaching about trans people in biology? Your job is just to teach about biology.” But trans people are a part of biology, and we would do a disservice to leave that out, and we would not be equipping our students with the tools they need to navigate the world. I think it’s a really touchy subject. For me teaching in Denver, I haven’t gotten much pushback on the way that I teach biology, that’s at the high school level. People hear very different things at the middle school level and at the elementary level. If it’s being called indoctrination, then there is a prejudice that this is something that students shouldn’t know, and if it’s something that they shouldn’t know, it’s either because it’s not true or because it’s dangerous to somebody’s ideals, and in this case, it’s the latter.

**Z:** What can cis educators do to be better to both trans teachers and students?

**Sam:** Number one thing is that the trans teacher is the expert on their needs. And I hear so many stories where people don’t recognize that, and they think, “Well, I know exactly what it’s going to take for this person to transition,” or, “I know how to do this to make this go best.” But the trans person is the expert on their needs, especially the teacher who deserves autonomy in their profession. A lot of teachers are in this difficult place where they don’t know much, they don’t know who to ask, and they don’t want to put it all on one person. Here in Denver, there are a lot of professional development opportunities. A Queer Endeavor out of Boulder does trainings for teachers, as well as the Trailhead Institute, specifically on puberty and reproductive health education. So, teachers, most will complain that their professional development is not relevant to them, and so a good way to fix that is to seek out professional development on this topic specifically, ‘cause it’s out there. One statistic that stuck out to me is that in the 2017 GLSEN survey, they asked of students, “Are you learning about LGBTQ identities?” And this is not even trans identities, this is anything LGBTQ. And, I think under 20 percent said, “Yes.” And once they said yes, they asked what subject it was in. It was in history, English class, or social studies. I felt like there was a big gap there, because everybody has to take biology. Why should there not be resources for science teachers? Science is kind of a strange spot because the current national science standards, the NGSS, they put a big emphasis on representing diverse students and understanding where they’re coming from and their identity and this formation of identity as scientists, exposing students to a lot of diverse scientists to show that anyone can be a scientist. We’re coming into the NGSS standards from a past of science for the best and brightest, we’re gonna weed out everyone who’s not good enough at science and then we’re gonna get these geniuses at the top who will make all the discoveries in science. And so, we’re already coming from a place that, it hasn’t been a priority in the past for students to feel included in science, so it’s a difficult place to start at, but I see nothing but opportunities in teaching biology in the future for getting more students to feel included, to feel affirmed in the curriculum.

**Z:** What do you plan on doing with the *Gender Reveal* grant fund?

**Sam:** Lewis Maday-Travis is a teacher in Seattle who is my partner in working on this gender-inclusive biology project. I need to mention him and all the work that he’s done. So, we were really excited and really grateful to receive the grant. Lewis and I have been working on this project since January of this year, working specifically on getting these teaching strategies out to other teachers, so we’ve gone to a couple of conferences so far. In early June, we presented our Growing a Gender-Inclusive Biology Curriculum workshop at Gender Conference NYC, and we got a lot of good responses. Our one big lesson coming out of that was that this work is uniquely suited to biology teachers because of how much about humans and identity comes up in that subject. So, we want to take it to other conferences, to meet the needs of more science teachers. So, likely, the grant will go toward us making it out to those conferences and connecting with people. There are a lot of people that want to do this work, it just hasn’t been centralized yet. Most biology teachers are teaching that same textbook style, but they—we know that they want to do it, and we know that there is a need for us, so we’re really excited about where that could go. One thing that surprised me was that when we do these workshops, people that are not science teachers are also really interested, and we’ve developed a framework for creating or adapting gender-inclusive biology curriculum. And I believe the framework really applies to any kind of curriculum, though it was kind of made with biology in mind. And the five parts of the framework are authenticity; continuity in what we’re teaching; affirmation, so celebrating diverse identities; anti-oppression, always asking about who is included, whether current or historical trends; and student agency, giving students some more say in what they’re interested in and how they want to learn whatever it is. And so, I’ve been very excited. Starting the gender-inclusive biology project has been a different way of being a teacher. For the first four years, I was kind of just my own teacher and doing whatever I was doing, but now there’s this area of great need and area where I have great expertise, where I can help other teachers to improve what they’re doing.

**Z:** That’s awesome. Tell me about space.

**Sam:** Uh, sure. Most people that are astronauts, if you ask them, they’d probably say they wanted to do it since they were a kid, but I wouldn’t say that, because, although I do want to be an astronaut now, much more important was working out my own identity and having transitioned and feeling fairly comfortable with my job as a teacher. My current big goal is becoming an astronaut, and it’s been my goal for about one-and-a-half years now. The big challenge is that so few people become astronauts, and so, in the past, there’s never been a living, out, LGBTQ astronaut. Sally Ride, upon her death, the public learned about her sexuality. And I want to be the first trans astronaut. It’s the first thing that I’ve tried to do, that when you Google it, there’s nothing, there’s no instructions on how to do that. [Chuckles] But there’s one thing going on. Out Astronaut is a non-profit that started a competition. It is what it sounds like; they, they wanna recruit an “out” astronaut, and phase one of their contest involves video submissions and voting online, so that’s gonna come out July 15, so I am applying for that. I want to reach my own goals. It’s something that I really wanna do, and I think I probably would have wanted to do it since I was a kid, had it not been for other challenges. But now, just to—having the ability to say that, “I wanna be an astronaut”, is huge. Like, I would not have had the confidence to say that when I was younger. And, being in the position of a teacher, I—of course I told my students about this. They’re always asking me, “When are you going to go to space?” And I think it would be just incredible to accomplish that. I mean, that’s something that most people don’t manage to do in their lives, and that’s something that, if a trans person were to go to space, whether it were me or someone else – but I hope it’s me – that would really challenge expectations of who a trans person is. So, July 15, the voting period starts, and it’s a two-week voting period to qualify to be an astronaut, at least under NASA. The CSA requires like, a fitness test and a swimming test, and as I was going through this process, I needed to learn how to swim. I think I’m not the only trans person that has, like, a weird relationship with my body and avoids swimming and didn’t learn how to swim. But wanting to go to space, I think that’s a good enough reason, and it was a good enough push for me to get me over that because last summer, I started learning how to swim, and it’s been going well. And, to me, that was a big triumph, as somebody who wouldn’t have been able to do that before.

**Z:** The way that we always end this podcast is, in your ideal world, what would the future of gender look like?

**Sam:** In my ideal world, in the future, young people would learn about science in a way that deliberately includes rather than excludes diverse genders. And we would have a lot more trans scientists. Uh, we would have at least one trans astronaut. And biology wouldn’t be used as this weapon against trans identities, but it would be used as a lens through which to understand and appreciate gender diversity.

[*Gender Reveal* theme music begins]

**Molly:** That’s gonna do it for this week’s show. If you liked the episode or learned something, please share the show with folks in your community. And if you want to help us give grants to more folks like Sam, please consider joining us at patreon.com/gender. When you do that, you’ll get our newsletter-type product, as well as stickers, pins, and other fun stuff, and we’ll keep the podcast going! You can find Sam at sam-long.weebly.com or on Twitter @samlong713. All those links are in the show notes. You can find Z at zgriffler.com. And you can find us on Twitter or Instagram at gendereveal, and genderpodcast.com. And you can join us on Slack at bit.ly/genderslack. Today’s show was produced and edited by Z Griffler, with help from me, Molly Woodstock. Our logo is by the talented Michelle Leigh, who also makes great pet portraits, by the way. Our theme song is by Breakmaster Cylinder. Additional music this week by Blue Dot Sessions. We’ll be back next week with more feelings about gender.

[*Gender Reveal* theme music ends]