# Teacher Feature: Mr. Proctor

By Zayden Orenstein

On Monday, May 5, I sat down with Mr. Proctor, Music Tech and Research Teacher, and asked him a few questions:

**So, could you just share a little bit about yourself?**

"My name is Josh Proctor. I teach Beginning Music Tech, Intermediate Music Tech, and Honors Research."

**How did you get started at IA?**

"I previously taught at Fulton Science Academy; I taught primarily math there, along with a few other classes, like Research... That was my first teaching job... Innovation Academy was already on my radar because a lot of our students that were in our middle school at FSA were going to Innovation... So, I knew of IA, and I knew that it was a comparable STEM school... I really wanted to get into public education. So [those were] some of the things that led to me applying here. Interestingly enough, there was a brief moment where we weren't sure if there was going to be a math opening, so I interviewed with Ms. Garth because I have ELA credentials as well. If I wasn't hired as a math teacher, I was going to be filling a spot that would be ELA and research."

**So, you said that you started your time at IA as a math teacher; how did you move into Research and Music Tech?**

"As soon as I was here, one of the things that drew me was that I really liked doing projects... My idea was, because I was teaching Pre-Calc - Pre-Calc has a lot to do with sine waves and other trig functions, and then we had piecewise functions as a part of our first unit... Piecewise functions map on really well to the discussion of the attack, decay, sustain envelope when you're dealing with sound design. And then, of course, sine and cosine waves speak for themselves as related to music, so, basically, all that made me decide that I was going to try something big. I'm going to a project-based school, Mr. Kent's talking about [how] we should push forward big projects... don't be afraid to fail, just try something new and then we'll figure it out. So, I had the idea to do a semester-long project. So, they had to make some original multimedia piece that tied together piecewise, trigonometric functions, law of sines, law of cosines, along with original audio and video.

"So, basically, all that led to a lot of my Pre-Calc students, some of whom were taking Music Tech, getting to double-dip their Music Tech with my class, or just get to make a completely new song; I had a lot of original songs turned in that functioned as math projects, which I was really happy with. In the meantime, I had been working with the Music Club, which Mr. Vu had run the year before... I got to work with the Chamber Music part of the club to really focus in on having more performances... And that all culminated in some volunteer performances at nursing homes.

"Between all that, between me doing projects, being involved with music, eventually getting involved with drama club as well – the music parts of that – and boosting Music Club, when Mr. Vu realized that he would have to leave, he recommended me as someone to fill the music spot,

because he knew that I had been involved in the club and was really interested… So he pitched that to the admin, they reached out to me, and gave me a bit of time to think about it… But that just worked out, so I interviewed for that. Simultaneously, I had worked with Mrs. Reid, because she was a math teacher. She was going to be the new Research department head, and we had talked about the fact that I had used to teach AP Research, and so she was interested in getting me in to teach Research already, so it kind of worked out perfectly…"

**What do you enjoy the most about IA?**

"Ever since I got here – like, minute one, introducing myself to the first period Pre-Calc class last year – the way that the students interact with the teachers, which I know is a bit of a generalization, since students are very different, teachers are very different, but, on the whole, on the balance, they are very respectful to teachers, but in a way where you still keep parts of you active there. IA students seem very individualistic to me; you all have big personalities and aspects that are unique to you that you don't shy away from showing, but, at the same time, you don't make all of those my problem all the time. Minute one, my first period students last year were so welcoming and so kind to me right from the beginning, and many of them told me that first week that they really struggled in math; a lot of them told me, promised me, that they would fail my class… and I would argue that, for every single one of them, it was a misconception. Every single one of my students passed last year."

**What is one thing you wished more people noticed about IA?**

"I'm pretty much always going to say that I want us to notice the arts more at IA… I do think that there's a lot more art stuff going on and, as we expand the program, especially now that we have actual art classes starting next year, I think we just need more and more places like the Art Showcase to show that off. So, I think we are in the right direction, but I still think that there could be more attention put on that… I still talk to students who are confused when I tell them that there's Music Tech… that still happens on a weekly basis… And now we have art… so, next year, we'll be getting a lot of 'wait, we have art classes here?'"

**What is one thing you would recommend for people who want to enter music production?**

"So, people getting into music production that are interested in my class… you can come with basically any level. Obviously, the more music you know, the more things about music and technology you know, you'll probably have an easier time doing some of the assignments, but it's a class designed where anyone can get an A with almost any music experience. I do hope that you're a better musician when you leave the class than when you came in, but, us not being a performing arts school, you will very rarely ever have to play something on piano for a grade – really only one time that will happen. So, that's what I would say for joining the classes, whether it's the beginning or the intermediate.

For getting into music production in general, I do think that it is far harder to get into music production if you don't know how to play any piano. I really couldn't imagine any part of my music production process without knowing how to play at least some basic chords on piano; I do not have great piano skills, but everything I can do on the piano helps me produce music better, regardless of what I am playing. I will write a guitar part on the piano, record it, and then go back and record it on a guitar, because guitar is my main instrument; I'll write a drum part using my MIDI keyboard. It's

just the easiest way – like, you can have a piano sitting there, next to your keyboard (your typing keyboard), and you really need nothing else; you can be a full producer like that. So, I would say, if you're interested in music production, then hop on one of the actual pianos that we have around the school and just learn some 'Twinkle, Twinkle, Little Star', or some 'Saints Go Marching In', or something simple. Even rudimentary keyboards will pay huge dividends with music production.

The other thing I would say is, when you are starting out, be really wary of using loop-based procedures for generating your music... be really wary of any AI sites, or anything like that. Those tools – adding in loops and adding in AI vocals or an AI sample or something like that – those are things that, when you are at a more intermediate level, you can take those things, and you can turn into your own product, but, at the beginning level, [if] you're using a drum loop, for example, the drum loop may be better than any drums you can write at that moment, but you're not going to understand why those drums sound good. You're just going to have good sounding drums, and you're never going to develop the skill of being able to write a drumbeat. The thing about loops is [that] I can make a better drumbeat than any drum loop that I can find online, so I have no need to go find those, unless I'm using it as a placeholder. But when I was first starting out, I couldn't write drums like that, so I would have ended up using those drum loops and not forcing myself to write those drumbeats, and then I would have been stuck just whatever those loops came up with. So, you can use loops, you can use AI as a tool, But I would recommend, at the very early stages, just accept the fact that you're going to write very simple music, but try to *write* those simple pieces of music – set your sight on something reasonable and do your best at it, and you'll develop those more advanced skills more quickly than you think, but not if you're using all the training wheels in the world."

Beginning Music Tech is an elective class where students learn the basics of GarageBand and how to make music there; Intermediate Music Tech is a more advanced version. Research is an 11th grade required class in which students produce a yearlong research project.