**The Beauty and Joy of Computing: Middle School**

<https://www.youtube.com/watch?v=WUEfxgzFTTk>

0:00

Hi. My name is Dan Garcia. I’m a teaching professor at UC Berkley. Some colleagues and I have just built this wonderful curriculum called The Beauty and Joy of Computing for Middle School Students. It’s an exciting curriculum. It’s part of the CSforALL family of curriculum and innovations that are, whose goal is to try to share computer science with everybody, we’re gonna use this amazing programming language called Snap!, which I’ll talk about in the next slide. And on the right is our beautiful logo, BJC, when you see that, think about our curriculum.

0:31

So I mentioned Snap! Snap! Is a wonderful, graphic, blocks-based programming language. It’s a lot better than text-based languages because it’s graphical, you can write your program in what looks like English, what’s called pseudocode. The blocks can have spaces and inputs all around them; it’s really wonderful. It is what we use at UC Berkley to teach computer science. So if you say, “well, I don’t.. what’s this kid language?” No, we are using at UC Berkley, one of the top computer science programs in the country. It’s a wonderful language, it lets you program multi-media really easily – graphics, images, sound, in a way that almost no other language does with that ease. So, we’re gonna have a great time working with Snap! And I hope you do as well.

1:13

I want to talk about the importance of the Growth Mindset. This is Angela Lee Duckworth, she gave a TED talk and I encourage you and your fellow students to watch this video. It’s a TEDEdcuation talk about the importance of grit. Grit means, when you kinda get kicked, and you fall down, you get up again, and you jump back on the horse again. So, when you fall off a horse you jump back on. So the idea of grit is your stay with it. It’s stick-to-it-iveness, if you will.

1:38

So here are two images. Maybe you’ve heard of this in your classes before, the importance of a Growth Mindset. I want to talk about it in the first video. It’s just really, really critical that you embrace the Growth Mindset. If you have a Growth Mindset, you’ll say phrases like this: *I can learn anything I want to; When I’m frustrated, I persevere; I want to challenge myself; When I fail, I learn; Tell me I try hard; If you succeed, I’m inspired; My effort determines everything.* And contrast that with a Fixed Mindset, which says: Well, *I’m either good at it, or I’m not; When I’m frustrated, I give up; I don’t like being challenged; When I fail, I’m no good; You know, tell me I’m smart, ‘cause that used to feel really good when I was younger; If you succeed, I feel threatened; and My abilities determine everything, not my effort.* So we want you to believe in the Growth Mindset. The Growth Mindset is really the perspective. It’s a way of seeing the world that says, when you fall down, you get up. It’s not a big deal, it’s an opportunity for growth. We can all succeed together, it’s not a competition. And effort is the key. It’s not about natural abilities. We all have different ranges of natural abilities. Usain Bolt was born with the ability to sprint, we know that. But his effort was what got him from… if you watch some of his early races, he used to lose, and his effort made all the difference. It doesn’t hurt to have some natural talent, but it’s effort, at the end of the day, that’s going to make the difference between whether you win or lose. And we can all win. We don’t start a competition. That’s the other thing that’s important here. Okay, so think about the Growth Mindset as we move forward.

3:12

Another thing before I close out it, it’s a pilot. And a pilot means it’s the initial course that we’re bringing to middle school students. We need to hear your feedback. We need to hear when the material really works with you. When you love it, tell your teacher that. Or if it’s not working so well, “you know what, this is kind of boring.” Let them know too! Now sometimes you’re going to be challenged with some things and it might be hard. We call it “hard fun.” Seymour Papert, famous educator, coined that term. It means that sometimes it’s going to be really tough, but you’re gonna do great. You’re eventually, if you have that grit, if you have that Growth Mindset, you’ll get through it and eventually you’ll end up enjoying it even more because it was more difficult, rather than being just too easy. So think about giving us feedback at every stage in the game, because we need that to improve the curriculum to make it better next time.

4:00

We really, really hope you enjoy this course. Here’s portal you’re going to be working with, to get to the student materials. They’re interactive, you can play with Snap!. It’s gonna be really, I hope you have a great time. I’m not gonna tell you it’s gonna be fun, I just hope you really enjoy the course. All of us who put together, who were part of the development process hope you enjoy the course. It’s been a labor of love for over 3 years. And we really, really, really enjoy… hope you enjoy it as much as we’ve enjoyed putting it together for you. Thank you so much, take care.