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Title: High School Physics Teacher

Profession: Teacher

I am a high school physics teacher in Montpelier, Vermont. My philosophy for teaching physics is that for every topic we cover, there needs to be an application. I think it's a shame to teach physics in a vacuum. I encourage my students to pursue greener practices both inside and outside the classroom. In one case, my students worked with community organizations to install bicycle pump generators to power the school's new water pump. I am also working with students to use thermodynamic principles to weatherize five homes. I've joined my students as they

beginnings

how I got started | I've always loved physics since the fifth grade, when I joined the after-school physics club. I knew since then that I would major in physics. In college I thought about getting a PhD; I did some internships in the fields of business and industry and learned that was not for me. I tutored some students and, as an undergrad lab teacher assistant I did some classroom teaching and discovered I really loved it.

inspiration

why this job? | One of the things that really excites me is preparing students for the coming challenges of energy and resource management. I could be out there myself, doing energy efficiency work or activism, but I can effect change on a broader scale by empowering students, giving them the message that they do have that power and potential.

marched to the Vermont Statehouse to bring attention to energy conservation and sustainability issues. In 2004 I received a fellowship from the Knowles Science Teaching Foundation. The Knowles Science Teaching Foundation, or KSTF, is an organization that offers 5-year fellowships (valued at \$150,000) to beginning math and science high school teachers. KSTF provides their award-winning teachers with the mentoring, the instructive seminars and the sense of community that they need to improve their teaching strategies and to become leaders in education. KSTF has just over 100 KSTF Fellows/Teachers in 25 states throughout the country.

my Education | BS in physics with a minor in math from Penn State; Masters of Secondary Education from the University of Vermont

how to get started | There are various programs out there to help people transfer from industry to teaching. Many state universities have teaching programs for people without education backgrounds that take one to two years to complete.

love

why I love this job! | Interacting with students- they're fresh and funny and full of life. I just love physics- to me, it's the most fundamental of sciences. I see the world as beautiful and amazing, and I get to talk about that with kids every day. Plus, I'm always learning something new: kids are always going to ask why and if I don't know why, that's an opportunity for me to learn too.

typical day

my typical day | I generally bike to work- I bought a place close to the school so I could do that. I get here about 7:30 and finish getting ready for the day. I teach class until 2 or 3PM, then go to meetings and tutor students, go play Frisbee for awhile, then go home and call it a day.

challenges

what they are | When it comes to doing projects that have to do with real life, they involve risk, because you don't know what all the outcomes will be. Dealing with the risk factor can be scary.

upside

all about growth | There is certainly the need for more physics teachers. But we need to work on changing the perception of how teachers are viewed in our society and culture, so they get the respect they deserve. I could be making twice what I am now if I were working in industry. Improving pay would be a legitimate way to increase people's interest in physics teaching. Also, the way physics has traditionally been taught has turned off a lot of people- we have to examine how we teach it if we want more people to choose physics as a career.

must have traits | You must like kids! And you need to be emotionally conscious and alert in order to adapt what you're doing to the kids' needs. Flexibility- you never know what's going to come up. And, team leadership- I had no clue going into this how many decisions I would need to make on a daily basis.