

A day in the life of a Physics Teacher

Just because you have a timetable for the day doesn't guarantee that all will go as planned. I'm in my lab early, intent on getting a projectile experiment set up. However, pupils and colleagues drop by to say hello, another Physics teacher asks me about the best way to introduce potential difference and before I know it, it's time to register my tutor group. Achieving time dilation would certainly make my job easier! In my first class, Year 11 pupils hand in their homework on "Waves and Sound". Flicking through their work, I stop – "Sarah, why do you have "Henry the Hoover" on your poster?" "That's easy – it's because sound can't travel in a vacuum". I smile to myself as adverts for revolutionary "silent" vacuum cleaners scroll through my mind. I'm struck again by the conflict for pupils between everyday vocabulary and the language of science.

"Hey miss – guess what?" Jemma announces as she explodes through the door after break. "When I was in Tesco's yesterday with my mum, she got a shock off her trolley. I said to her, "We were learning about that in Physics. It's to do with friction and the electrons moving." A volley of contributions from the class follows about their "static" experiences. Inwardly, I'm jumping for joy – it's encouraging to see pupils realising that Physics really is relevant. The Van de Graaf generator lesson today will provide a few shocks – none greater than the sight earlier of our technician brushing Barbie's hair to ensure a truly hair-raising experience.

A-level classes are one of the highlights of my day. The teacher-pupil relationship is different from that with younger classes, and I feel more like a "facilitator" of learning. I love being challenged by a brilliant question. It's exciting to look at the potential in front of me and I wonder where some of these inquisitive minds will end up. Today, Ben is questioning the viability of a floating power station...

It's 4 o'clock, and we're having an impromptu staff "Look what I've discovered" session. That's so important for us as teachers – retaining our sense of wonder and inquiry. Colleagues make a huge difference in that regard – people who are keen to keep learning and who really love their job. We're all in one of the labs, playing with horseshoe magnets and a signal generator, as we combine Fleming's left hand rule and standing waves theory to produce dancing foil strips that can be strobed. I leave happy that day, looking forward to showing my Year 14 class our "new invention" tomorrow. I just hope they are as excited as their teacher. The daily task of marking tests, sorting out homeworks and lesson preparation still awaits me at home – just part and parcel of a teacher's lot!

Catherine Donnelly

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Catherine Donnelly studied at Queen's University, Belfast, where she completed her primary degree in Applied Mathematics and Physics in 1994, before gaining a PhD in Atomic and Molecular Physics in 1997. She is currently Senior teacher and Head of Physics in Ballymena Academy, N. Ireland, where the team of 7 enthusiastic Physics teachers ensures that Physics is thriving.