2022 CM020_1 Coursework Reflection

Student Reflection #1: Prajna Mathaley (Year 3)

Chemistry RA has truly been a wonderful, enlightening and interesting learning experience for me over the course of this semester's module. Chemistry RA allowed me to further develop my passion for chemistry by allowing me to learn beyond the school's curriculum and deepen my curiosity for chemistry. Through the fun practicals, I also learnt a lot more about the different parts of the chemistry lab since we don't get to explore much of it during school practicals. I especially loved the practical with the natural indicators, which sparked my curiosity behind its chemistry which I now know is related to Le Chatelier's Principle. The content we covered in this module was an extension of what we are learning in curriculum which allowed me to make connections between my pre-existing and new knowledge. Making these connections holistically put my current knowledge of chemistry into perspective. On a lighter note, I definitely discovered that there's a lot more math in chemistry. At the start of the module, I came into RA thinking it was going to be just a whole lot of content and little of math. However, I was quickly proven wrong and was frankly astonished by the amount of math being applied to chemistry. I must admit that it was initially challenging to see the connection between the math being done and how this related back to the relevant concept in chemistry. However, as time flew by over this semester, I slowly got used to seeing more and more numbers in chemistry and got the hang of being able to understand how the math being done related back to chemistry. Chemistry RA really stretched my limits and enabled me to challenge myself to learn slightly more challenging out-of-curriculum topics that I otherwise would not have been able to learn. I am also very proud of how far I've come through this Chemistry RA module as I've not only gained new chemistry knowledge to apply to daily life, but I've also gotten to know more of my batchmates and grew closer to those whom I already knew through this module. I've seen many of my classmates go home after school on Wednesdays, feeling happy that they have no RA and can go home and relax, but I've never regretted taking Chemistry RA because it has come to be a truly wonderful experience that I will never forget. In a nutshell, Chemistry RA has been a learning experience fraught with challenges but also full of awesome discoveries and unforgettable memories.

Student Reflection #2: Sharmaine Chew Zi Hui (Year 3)

Chemistry Phenomena in Daily Life has allowed me to learn more about Chemistry outside of the regular school syllabus. I enjoyed broadening my knowledge of the current school curriculum such as acids and bases, as well as learning new concepts such as solubility product and equilibrium constant. Admittedly, I did struggle to grasp these concepts at first and frequently got the wrong answer for calculation questions, or even understanding the topics in the first place. While these concepts are challenging and difficult to understand, I did enjoy learning about them and gaining more exposure. In fact, I think this experience has also taught me that there are so many new and unfamiliar things that I have yet to learn of, which also kind of excites me to learn more. I think I've also come to realise how important it is to understand concepts as compared to merely memorising, and also having a growth mindset when it comes to learning new things. Aside from the content taught, I also enjoyed the practical sessions we did as they made learning much more fun and I was also able to gain a better understanding of the concepts (e.g. buffer solutions) and how they were applicable to our daily life. I liked how many of the practical sessions gave us the freedom to conduct experiments more independently, such as the session on natural indicators, where we could experiment with our own food. Additionally, I liked that we were given the opportunity to conduct our own research on applications of some of these concepts. Personally, I think one of the most enjoyable lessons was being able to listen to the various group's presentations on the natural indicators and their applications. I was able to learn about different kinds of natural indicators, how they worked, and some interesting applications – existing ones as well as some innovatively thought up ones! My group chose to do the presentation on blueberries, and I had a really fun time researching and working together with my group mates to come up with the presentation. I found it very interesting how such a common fruit could serve as a natural indicator due to the pigment called anthocyanin. It was also fun coming up with the applications as they were new and innovative and allowed me to think more creatively. Through research and presentation, I was able to gain a deeper understanding of chemistry concepts while learning about how it could be applied to our daily lives. I think the fact that this module covered applications and not simply the concepts also allowed me to have more interest in chemistry as a subject. All in all, I thoroughly enjoyed this module and have gotten many new insights and knowledge from it. I'm grateful that I had gotten the opportunity to attend this coursework and it has made me enjoy chemistry much more!