



## CoreSciences Case Study

I am ever grateful for CoreSciences. With affordable packages, it offers an accessible alternative to classroom practicals.

A number of the students I teach are international students and are learning from home. A couple of them haven't studied the Sciences prior to GCSEs. It was proving to be relatively difficult for students to understand what happens in a lab and the practical component – even whilst using professional video tutorials to supplement the theory.

As a science teacher, knowing some of the students do not have access to centers, schools or labs, I found it disheartening and began to find ways of setting up live demos online and looking into virtual labs. Like many teachers, I wasn't going to let my students struggle alone.

It was a lot of time and effort to plan, prepare and set up the live demos and it took a while to clean up after too. I would do it again and again if I had lab technicians and assistants – a team to support me. Especially, knowing that all my students enjoyed and found it very informative and enabled them to visually understand what's happening and asking me Qs real-time. However, this wasn't realistically feasible.

CoreSciences has been a great resource for myself and students to actively engage in their studies and see how things work in a lab. It has saved me a lot of time and has provided me with solace in a way - Knowing that my students are being delivered with practicals which are appropriate for them. I feel stress free. I am able to get students to screen share when they get stuck, and support them. Although the virtual lab assistant provides most of the hints :)

I have also used it for a small number of A-Level Biology Students, on a trial basis. The A-Level Students are required to carry out practicals which count towards their final grade. Due to the pandemic and social distancing restrictions, world-wide, teaching the practical component and arranging visits to a lab/centre/school proved to be quite difficult. A number of practicals were hugely similar to the GCSE practicals and it enabled them to actively go through an investigation, step-by-step and experience what it could be like in a real lab/exam under conditions.

The feature which records student attempts has proven to be beneficial. It has helped me monitor student progress and identify which topics/practicals they require assistance in. The students and I have nothing but good to say about CoreSciences.

One student stated, 'CoreSciences is fun and appealing to use.' Another Student stated, 'Learning is fun!' Below are just a couple of testimonials from the students, which they have written of their own accord.

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*"I enjoyed being able to carry out experiments which we wouldn't normally be able to, as we are doing online learning. I think it helps because we're able to understand better by experimenting, as well as it giving us some experience for if we do it in a lab. I found some of the experiments difficult to understand, such as the rates of reaction experiment, but after going through the steps on Core Science, it was clearer (the calculation tables are really helpful). I would like to continue using it because it clarifies experiments, as the worded steps aren't always easy to follow through. I would recommend it, especially to people who are doing online learning."* YR10 Double Sci Student

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*"The virtual lab provides an excellent overview of what is to be expected in a physical lab. Such as; reagents, equipment, chemicals, and safety.*

*The way you are instructed before you begin is similar to that of carrying out an experiment in real time. They let you know any helpful tips as well as how to stay safe during the process.*

*I enjoy using it as it is much quicker and far more accessible than going to a lab. It feels real because you still have to carry out every single step, wait for colour changes, and perform well without mistakes. In this way, it ensures you are still knowledgeable of what should and shouldn't be done. Evidently, there are no actual chemicals being wasted or equipment getting broken, making it hazard-free.*

*The portrayal of the equipment like beakers, test tubes, Bunsen burners etc. are quite accurate and resemble the real thing, I have become familiarized with them despite not handling them myself.*

*The "lab assistant" always points out your errors; like adding too much or too little of a chemical, inputting wrong data, using the wrong reagent by mistake. There is even a help box to aid any confusion as well as formulas you may need to know.*

*I would definitely recommend this to any home-schooled student, anyone interested in lab work who doesn't have access to a physical laboratory, those who cannot visit labs due to Covid-19 regulations, and even as a game to pass time as it is pretty entertaining as well as beneficial." - YR11 Triple and 12 Bio Student*

**Alisha Khanum, Science Teacher, Lady Evelyn Independent School, United Kingdom**

