

Biology Summer School, The Roslin trip

by Lauren King

During the Biology Summer School, we took a trip to The Easter Bush Science outreach centre. We got the opportunity to participate in a session that is offered to schools, involving the ability to taste PTC.

We took samples of our own genes for the practical which we then amplified using PCR and determined our genotypes using gel electrophoresis. The session would be perfect for learners. The staff have looked at the curriculum and made sure the session is tailored to the course specification notes for the Higher Biology and Higher Human Biology courses.

The session also involved us looking at some of the resources that the centre has produced for use in schools. My particular favourite

was the gel electrophoresis wall tank, which is an amazing activity to demonstrate the process of gel electrophoresis. I liked the idea of this activity so much that I used it only a week later with my Higher class with a little spin on it, where they had to solve a crime.

The class really enjoyed the activity and it was a great way of teaching the concept without carrying out the practical work. There was also reference to a DNA PCR paper-based activity that takes learners through the process of PCR using paper resources. This was also demonstrated using something more tactile in the form of coloured toys. The staff were very knowledgeable about the process and were aware of the specific wording etc. of the SQA and stuck to this as far as possible.

During the session we also had the opportunity to speak with some of the researchers at the Roslin Institute to find out a little bit more about what is going on at the centre.



The Roslin Institute.



This was very informative and put some of these more complex lab techniques into a real-life application scenario for learners. I also used some of the other resources on the Centres website with my class such as some videos showing the process of PCR and Gel electrophoresis.



Delegates preparing samples for PCR.

While this is not an ideal replacement for carrying out the technique themselves, the videos produced were clear and informative with a few interactive questions to keep the learners engaged. We ended the day with a very quick tour of the research facilities at the Roslin institute. It would have been nice to have longer on the tour, but the practical session had taken up most of the day. Overall it was a really positive experience, I learned about lots of useful resources to use to bring some of these concepts to life in the classroom. <<