

Julie Martin, Larbert High School

Final Report

Brief overview of the nature and the intention of the visit.

In March of this year, I was selected to take part in a group study visit to 's-Hertogenbosch in the Netherlands. The visit was to investigate how cradle to cradle technologies and how a circular economy can be used as a rich and stimulating context for interdisciplinary learning relating to sustainable development education and global citizenship. A daunting, yet exciting prospect! This visit was arranged in partnership with the Ellen MacArthur Foundation.

We arranged to meet at Glasgow airport with plenty of time to spare and a chance to "get to know" each other a little better.

From the outset the details of the visit were made clear and concise; as a society we would have to move away from the "take, make, dispose" way of thinking and fast. We were given a plan for our journey and a list of the places we were going to visit and the plan of travel was also clearly explained.

On the Wednesday we had an introductory session, where James Pitt from the Foundation gave a very enthusiastic and interesting talk on the Circular Economy. Many aspects of the circular economy, cradle to cradle, sustainability (to name a few) was explained in more detail and it was generally felt that this helped us to understand and become more clearly about topics. We also took part in some group tasks which allowed us to "bond" as a group while learning/understanding more about everyday events, which we wouldn't otherwise have considered were harming the environment.

The days that followed consisted of visits to schools, colleges and industry. Where the importance and need for sustainability in everyday design and as a way of life, became more apparent. I found the visit to De Rotonde School very interesting and the "find your own way" ideology was an innovative approach to learning. This was backed up by the enthusiasm of the schools Manager, who had been allowed the input into the building design. As had another school, where sustainability of heating and lighting had been given a high priority. Solar power was used to help keep the cost of electricity down and the rain water was stored underground, and used during the winter months to heat the under floor heating system. Very little energy was used in this school and it has been running for over 2 years now.

Likewise was the Christiaan Huygens College specialised in vocational training for the less 'academic' students. The building was extremely energy efficient. The energy roof they had installed, acted like a radiator. It produces more than enough energy to heat the entire building, eliminating the need for radiators. They had energy efficient lighting in every room, which not only cut down on electricity usage, but allowed the staff to create the correct atmosphere for specific tasks in the classroom.

The visit to Desso (carpet manufacturer) and a resource retrieval firm were able to demonstrate the long term benefits of using a cradle to cradle concept. When discussing the trip with my pupils they were particularly interested and bemused by the fact that this company were able to use paper from the sewage to manufacture A4 paper for the photocopier. With no smell!

The impact it had on you as a practitioner – in terms of CPD

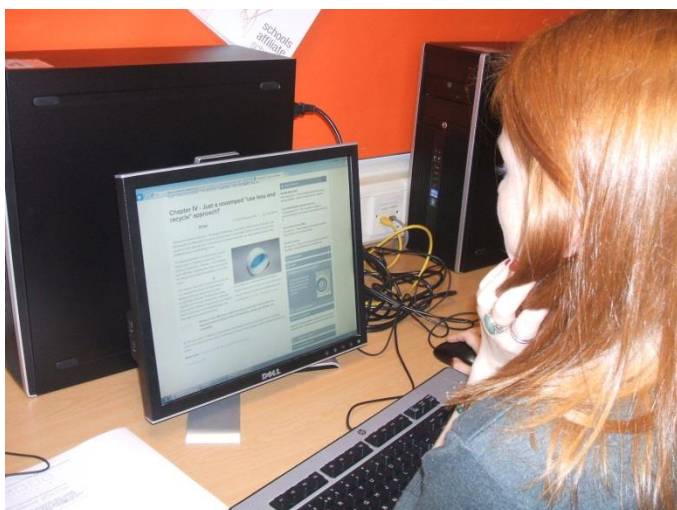
“As in life, any system should ultimately aim to run on ‘current sunshine’ and generate energy through renewable sources.” This was a concept I was naturally aware of but if I’m honest, had never really thought about how it could be put into practise. The realisation about the implications of a cradle to cradle approach have really made me want to push this concept and it’s issues more into my teaching and education.

The impact it had on your school, learners and community – what ideas did you bring back, what activities resulted from your visit?

When I returned to my school, I was excited and anxious to introduce this new (and to some of my colleagues “alien”) concept into my department. Due to the extremely heavy workload and the urgent need for the developing of National 4 and 5 courses, I have currently only been able to bring news of the circular economy and cradle to cradle design, into my own lessons. I have introduced the circular economy to my Higher and Advanced Higher Product Design classes. My Advanced higher pupils have a much better realisation regarding the situation our planet is in and that it is very quickly running out of resources and how moving to a more “circular economy” could make a difference to our everyday way of life. I have used the set of “project re design” cards with my pupils. I gave them an everyday “costa” coffee cup and asked them to think about how and where that cup came from? This game allows them to appreciate how much energy and waste (a linear approach) goes into making such a simple everyday product. The pupils actually really enjoyed doing this task. I then ask them to think about the other set of cards which are more nature based (circular economy) and arrange them into an order. They soon realise that the industry based set of cards; form a line and the natural based cards form a circle, hence “circular economy. Such a simple yet effective task!



I have also managed to engage my advanced Highers in lengthy discussions about the cradle to cradle approach and this ties in nicely with some of their course work. In the third unit of work; the “Design Case Study”, pupils have to research a product (at length) which has evolved over the years. They are also required to comment on how this product may develop in the future, looking at various design issues. In this section they are able to discuss how the effects of using a more “cradle to cradle” approach might change this products; materials, manufacture, disposal, society. Something which I feel privileged to have had the experience and opportunity to learn about and can know discuss with my pupils.



How you plan to use your experience going forward to further impact on learning and teaching and your schools?

- I have mentioned the topic during numerous lessons, with my younger pupils but it's something they find difficult to comprehend. As many of us currently come from a society where we like "to own" things, I can understand their apprehension.
- We are currently planning course materials containing tasks on sustainability for National 4 Design and Manufacture.
- The Humanities department within the school are currently working on a whole school based project to tidy up an area of waste land behind the school. They are keen to welcome wildlife back into the area and I had suggested the possibility of an IDL project between Humanities and CDT to design and create "bird houses" with a cradle to cradle approach. Where once the birds have left for the season, the boxes could drop to the ground and feed back into the soil.
- I would like to firmly embed the topic into the Higher and Advanced Higher Product Design and Graphic Communication.

I was slightly disappointed that we did not visit more schools and have the opportunity to witness first hand, how the Dutch teachers were implementing "cradle to cradle" technology into their curriculum. Having said that, this now gives some of us Scottish teachers the chance to take the education system by storm and be some of the first people to implement "Cradle to cradle" technology into the curriculum.