

Success story 1: Lessons from Nature days

Key words: lesson from nature, learning outside, forest, pond, recycling, business



In this second 'success story' we look at a particularly successful element of the project: the 'Lessons from Nature' days. 'Lessons from Nature' is second module of 5 in the project and is one of the most important ones. In this module, students go outside to use their senses and learn through experiencing, exploring and feeling. This kind of 'experiential learning' is often more memorable than traditional classroom based learning and can help students gain deep understanding of the topics. At the same time, it's also about having fun, experiencing a new environment and being creative.

Students from our pilot schools explored the beautiful, ancient Epping Forest with its centuries old trees and diverse ponds. The module is all about learning how nature does things, and what we can learn from this. For example, in nature all 'waste' becomes 'food' for other organism (waste = food); all natural systems are powered by renewable energy (run on solar income) and things don't exist in isolation in nature- every organism benefits another organism (multiple benefits). Students then start to think about how they could develop products and services, to follow these natural principles.

One teacher commented how the 'Lessons from Nature' day was an innovative way of explaining concepts to students. Another comment was around how the day helped the students link natural processes to human activities. An activity around biomimicry (where humans adapt ideas from nature) went 'beyond what students cover at school' and even expanded the teacher's own knowledge. An activity which stood out, was a game to demonstrate the inefficiency of recycling plastic. At the end of the activity the students were asked: what does this game demonstrate. After a short pause there was a 'light bulb effect' amongst the students- you could see they 'got' the concept: it all ends up in landfill in the end anyway, recycling just

delays the process. This activity seems to have struck a chord with the students, as many focused on ways to reduce plastic as their final business idea.

Another benefit of spending a whole day thinking about the project was that it encouraged the students to experiment and develop ideas. Towards the end of the day, the students took part in 'pond dipping', initially seeing what invertebrates they could find in the pond. They learnt about some of the adaptations that pond invertebrates have and using this information and observing the animals move and interact they thought about how these adaptations could be used in green product design. This was quite a challenge for the students, who initially couldn't think of anything. UK students, especially at Secondary school, are used to there being a 'right' answer, such as for exams. They are often worried about getting the answer 'wrong' or saying something silly, so this activity which encouraged them to think outside the box and just throw ideas around, was both a challenge, but also helped them improve their competencies in creative thinking. Towards the end of the session, students had developed some ideas, which they confidently shared with the group.

By the end of the 'Lesson from nature' day, students had learnt new skills, improved their GEE competencies and had some great memories. Here is some of their feedback from the day:

Feedback from students

What did you enjoy?

"I enjoyed looking for insects and pond dipping because it was really fun and I learnt about different creatures"

"I enjoyed being able to interact around the forest and being able to turn things from the forest into an idea for a product"

"I have overcome my fear of bugs, and now I can find them with confidence"

"Pond dipping"

What did you learn?

"Trees are crucial to our world"

"About nature and how to identify plants"

"How to make some business ideas and how to make it into real business"

"Recycling delays the process of landfill"

