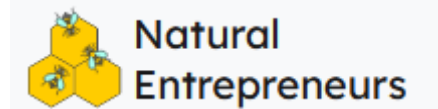


## Reflections from a Shropshire classroom



‘How can we learn from nature to create a positive future for people and planet?’ This is a big question to ask of a group of 14 year-olds on a bleak January morning. The full *Natural Entrepreneurs* course takes ten sessions, but the primary aim of today’s workshop is to introduce the NatEnt website – a collaborative learning platform where young people across Europe are encouraged to work in teams to solve a design challenge linked to one of the 17 UN Sustainable Development Goals.

The secondary aim of today’s workshop is to encourage the students to seriously consider the field of biomimicry as the foundation of their future careers – to become the people who design buildings that cool themselves without energy from fossil fuels, who create clothing that doesn’t harm the planet and who make glue that doesn’t kill us. The people who know how to look to nature to find solutions to human challenges and, in the process, find likeminded people to collaborate with as they navigate climate change and its accompanying ecological threats.

The first thing to sort out is the tricky business of defining biomimicry. With help from Janine Benyus<sup>i</sup>, the message gets across with surprisingly little fuss – the students are immediately intrigued and want to know more. Making clothing out of bacteria holds a particular fascination for this fashion-savvy age group.<sup>ii</sup> The packaging ‘brick’ made of mycelium is passed around eagerly, and becomes of even more interest when some of the class realise they have already received something like it in the post. The phrases ‘real world’ and ‘own life’ creep up again and again throughout the day.

By 10:00 am visioning the future inspires a sudden, excited group activity. It triggers a sense of independence, control and a real opportunity to make a difference to the world they are inheriting. The early, tentative ideas range from recycling businesses (one of Nature’s Unifying Patterns: nature recycles all materials). All the students seem fired up by the idea that nature + design ideas = business. ‘You can make a lot of money from learning from nature’, says one student in the final evaluation. ‘You can learn from nature to improve products and resources and improve the economy’, says another.

Just before break, the class login into the platform, create their team profiles. So begins their journey to become Natural Entrepreneurs and a part of the wider biomimicry community, taking them through a design process from challenge to potential product.

Most of the rest of the day is spent back on the platform, investigating other teams, translating from Dutch, Latvian, German, Romanian and Hungarian. Two teams are quick to find the collaboration points and watch their own team’s score rise rapidly as they leave positive comments for other European teams. With only a limited time to choose their own challenge, ‘Ask Nature’ is explored as the first port of call, demonstrating the wealth of information that is out there already, and the many, many products that are in development or on the market.

‘More time on the website’, ‘more time outdoors’, ‘more countries participating’ are threads that run through the evaluation responses. More time for ‘looking at animals and how they can help give ideas to us’. More time for ‘thinking about design ideas’. More time for ‘own personal research’. Young people like technology, they like outdoor learning, and they like feeling part of a global community that they can contribute to, that much is clear. No wonder 84% said they could see biomimicry ‘as a way to make a sustainable and better future’ by the end of the day.

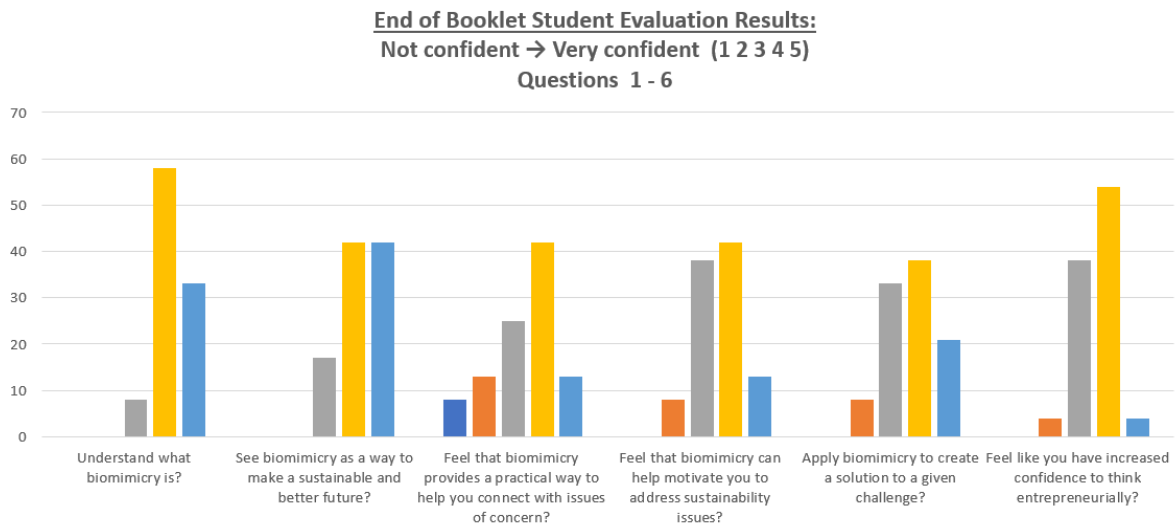
The comments remind us that these students see exactly why biomimicry is such an important field of study, why we have to look to nature to help solve the challenges our man-made world faces

today: ‘We can learn that nature has a lot of good ideas that can make this world healthier and a good place to live in’, says one. Implying that right now the world is unhealthy and a bad place to live in and looking to get a lot worse.

‘It’s a hot topic and I’m looking forward to adding it to our curriculum’ says the Science teacher as I leave.

## What did students learn?

Students clearly enjoyed their investigations, but was the learning effective? Each student completed a pre-evaluation sheet as well as a post-workshop evaluation booklet. The results were positive with 91% confident they can explain biomimicry, and 84% confident that biomimicry offers an approach to a sustainable future. In applying biomimicry, 59% were confident they can do this, with 58% confident to think as an entrepreneur.



And what did students say themselves:

- *“I like the learning about how working with nature can help solve problems.”*
- *“I liked learning how nature can create solutions to make the planet more sustainable.”*
- *“What biomimicry is and how people use it in real life.”*
- *“Humans have taken instruction from animals to create a more sustainable future.”*
- *“What biomimicry is and how you can use nature to help create things to help humans and the world.”*

by Carolyn Drever - English and Outdoor Learning Specialist

<sup>i</sup> ‘What is Biomimicry?’, The Biomimicry Institute, 2023, <https://biomimicry.org/what-is-biomimicry/>. Accessed: 27.01.2023.

<sup>ii</sup> ‘Biomimetics – Designed by Nature’, BBC, 2020, <https://www.bbc.co.uk/programmes/p02jflplf>. Accessed: 27.01.2023.