WISE-Tech Design: Eco-Just Parallelets

Soliman El-Hamarnah

Grade 10 Science

Stephen Lewis Secondary School

Designing Parallettes

Cause Variables

Result Variables

Variable Explanation

Sanded Wood Grips

3D Printed Rubber Feet (TPU-95A)

Handle Low To The Ground

Strong Base & Structure

Ideal Width & length

Friction Fit

Wood Construction (Renewable)

Comfortable & Smooth (Less Injuries)

The strength of the base and structure is increased by the 3D Printed Rubber Feet (TPU-95A) and decreased by the sanded wood grips because the 3D Printed Rubber Feet is made out of a very strong material called TPU-95A. The characteristics that make it strong is the incredible wear and tear resistance, high impact strength, and has up to a %580 elongation at break. But the strength and base is decreased by the sanded wood grips because if the handles/grips are sanded too much. It would weaken and easily break apart.

Producing Parallettes

Product Feature/ Ingredient	Curriculum Link	Citation
TPU-95A	<p>B3. Demonstrate an understanding of the hierarchical organization of cells, from tissues, to organs, to systems in animals and plants.</p> <p>Biology: My product helps with exercises that strengthen the cardiovascular system.</p> <p>C1. Analyse a variety of safety and environmental issues associated with chemical reactions, including the ways in which chemical reactions can be applied to address environmental challenges;</p> <p>Chemistry: Instead of using metal for the feet. I use 3D Printed Filament (TPU-95A) which is safer and environmentally improved.</p>	<p>http://www.edu.gov.on.ca/eng/curriculum/secondary/science910_2008.pdf</p>
Wood Dowel	<p>D1. analyse some of the effects of climate change around the world, and assess the effectiveness of initiatives that attempt to address the issue of climate change;</p> <p>Climate Change: Recycling wood helps reduce environmental impacts by preventing less trash from ending up in the landfills.</p>	

Your Product VS the Competition

Mobilizing My Product

Media Product

Actants:

- Athletes
- Coaches
- Fitness Teachers

My Product Inscriptions

My parallettes have a handle made out of a wood dowel. Which is also recyclable, which reduces impacts by preventing less trash from ending up in the landfills.

<https://www.youtube.com/watch?v=EZABkiiqslI>