

Problem

Around 1,500 tons of trash are dumped into the Cateura landfill every day. Poverty is also a large issue, so families pull their kids out of school to scavenge the landfill for items to sell. This, in turn, heavily disrupts their education. Repurposing common refuse for music education of disadvantaged youth is one way to address this problem.

About the Orchestra H2O

The Orchestra H2O was created by Luis Szarán to help support kids in Cateura, Paraguay. This orchestra has brought musical education to over 18,000 children and teens since 2002.

Orchestra H2O of Cateura, Paraguay



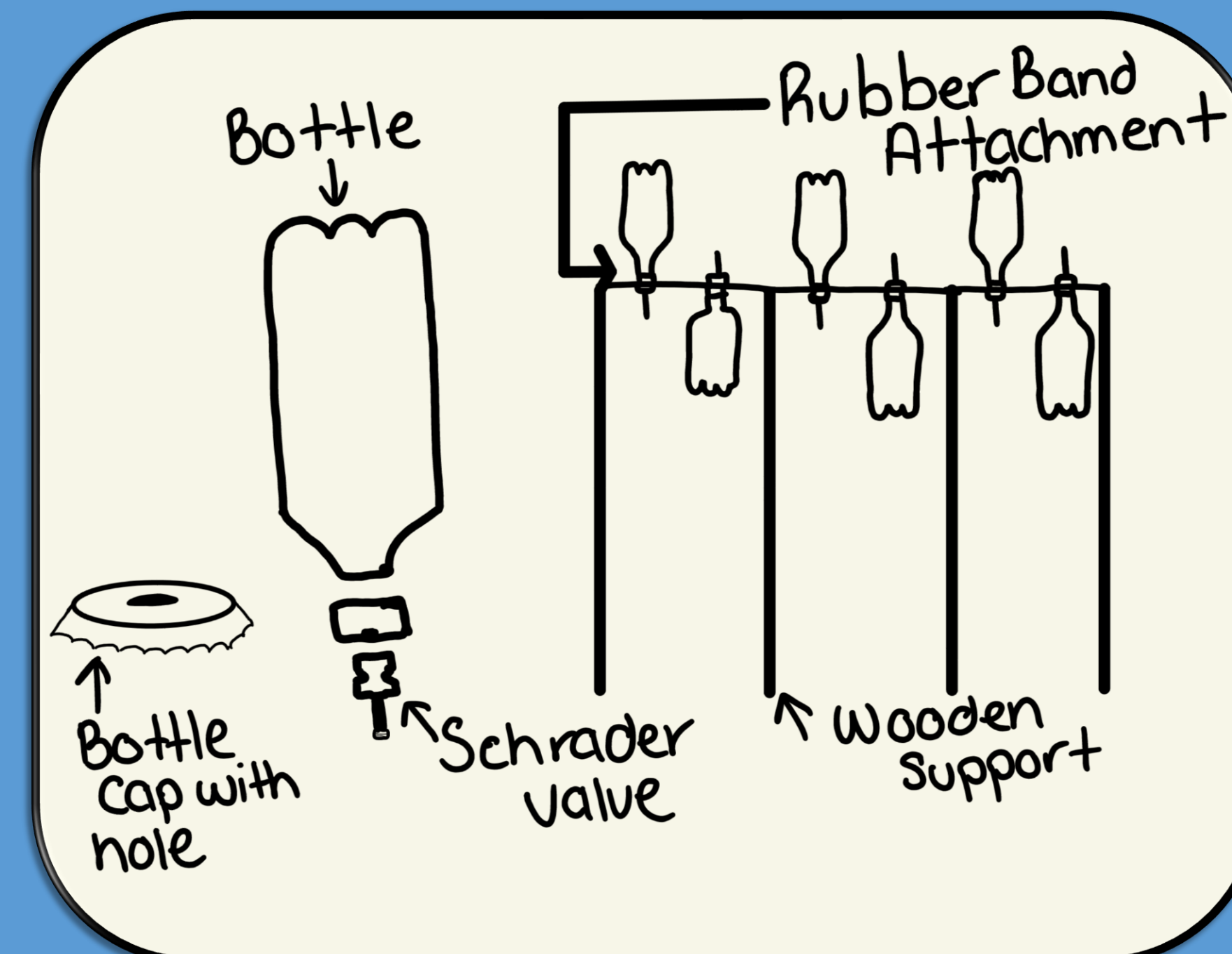
Abstract

Presented as an idea by Ms. Dorothy Burt and Dr. Martin Burt, our group created a marimba out of waste commonly found in landfills in Cateura, Paraguay. Our instrument will support the orchestra, reuse materials from the landfill and allow the kids of Cateura to raise money for their families.

**“The world sends us garbage...
we send back music”**

Favio Chavez
Orchestra Director

Initial Design



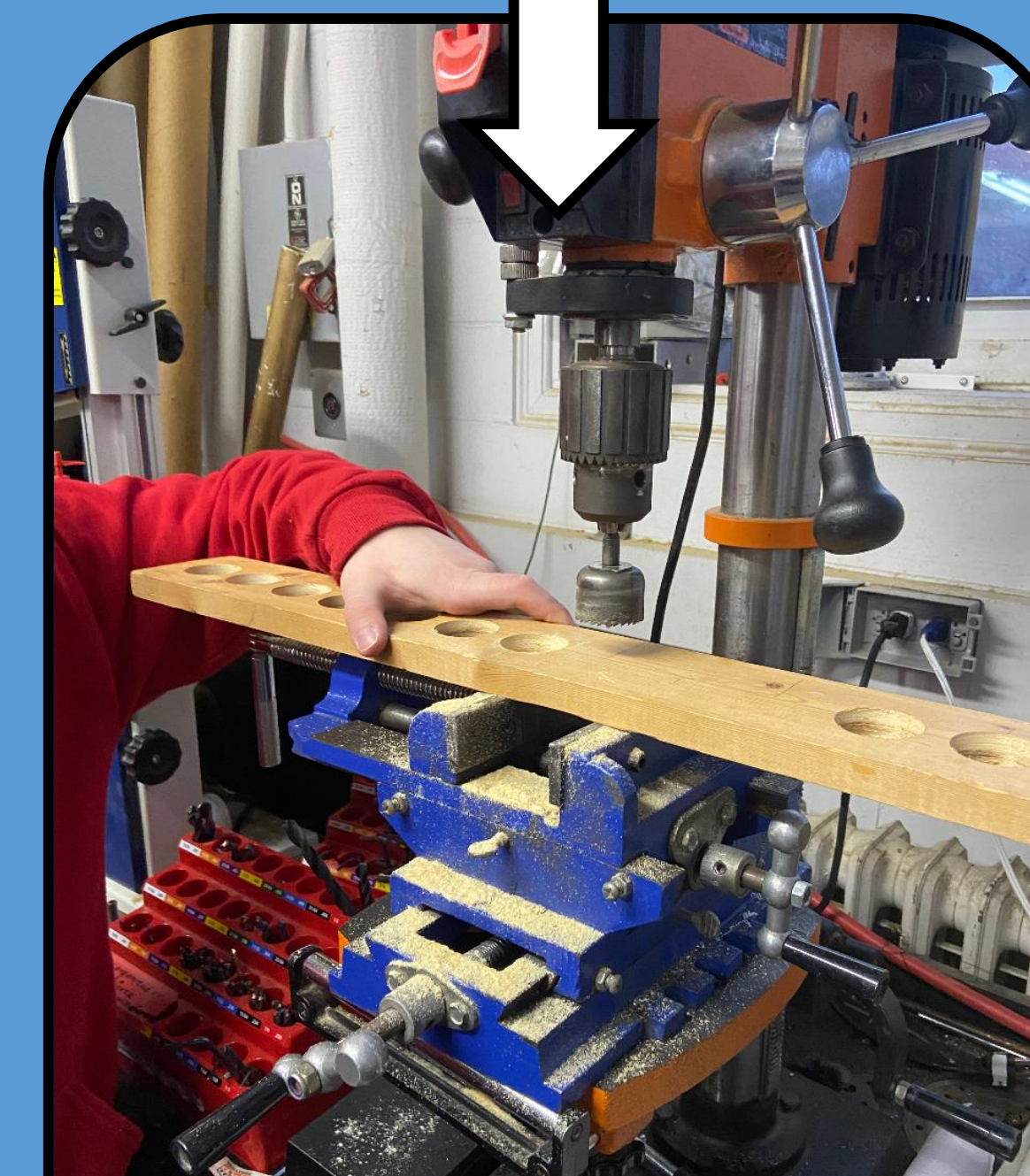
Valve Insertion



Bottle Construction



Pumping Bottles



Drilling Holes



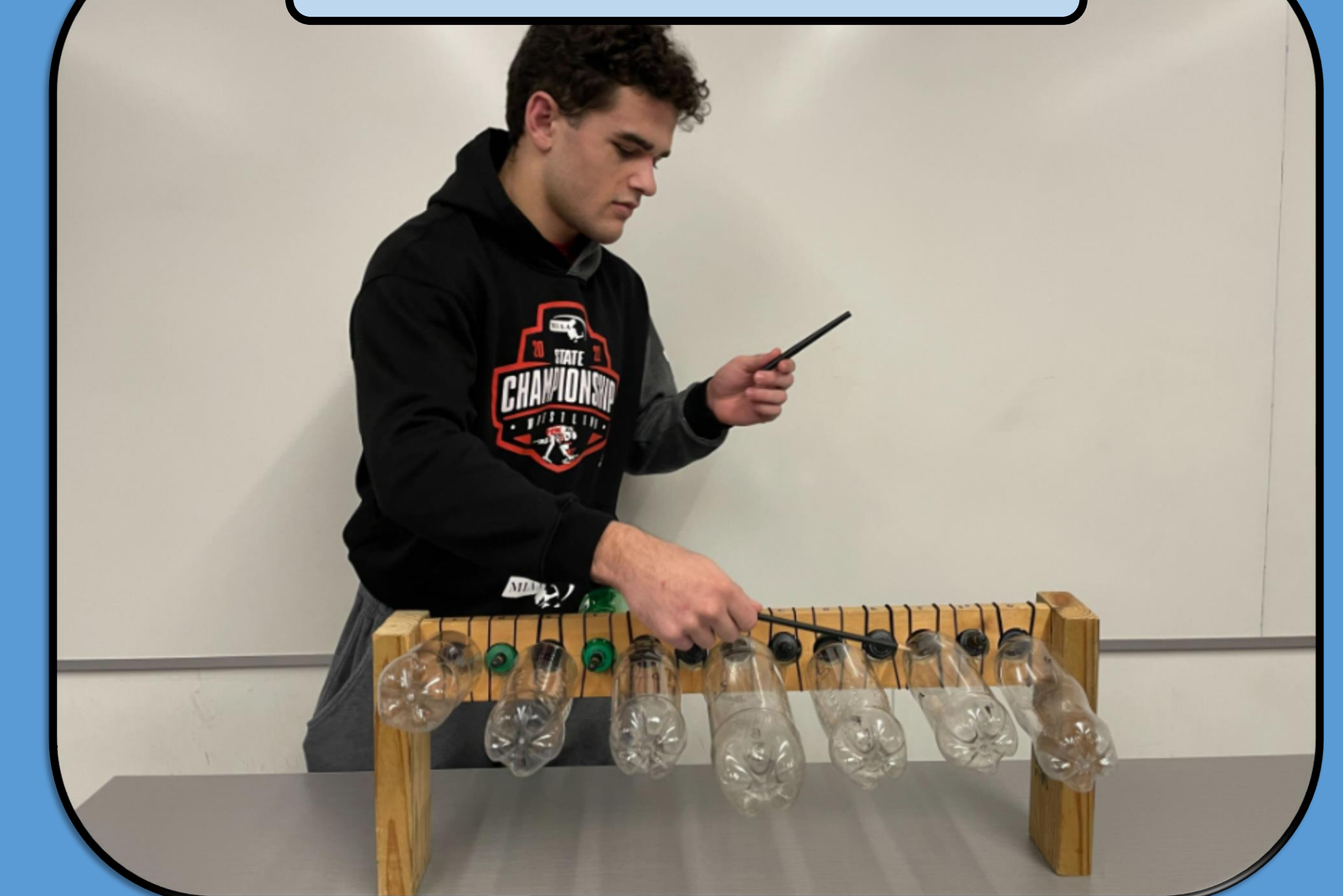
Project Goal and Solution

- Create an instrument made from commonly found waste in Cateura
- Produce a reconstruction guide for Orchestra H2O so they can use the instrument in their ensembles
- Inspire others to repurpose used materials for social, educational, and environmental benefits

Conclusion

Our team spent 6 weeks researching and constructing a Marimba for Orchestra H2O. The plans we put together will be sent to the Orchestra H2O so they can manufacture Marimbas to best fit their orchestra. Our Marimba also contributes to the orchestra's message of sustainability and social justice through education.

Testing our Marimba



Acknowledgements

Professor Svetlana Nikitina, Dr. Martin Burt, Mr. Jack Yebba, Mrs. Dorothy Burt, Mr. Shane Fredette, Mr. Jim Monaco

Bibliography

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