



Building "Bottle Schools" out of trash

<http://hugitforward.org/>

Hug It Forward is a movement to inspire people everywhere to live their passion while giving back to make a lasting change in the world.

We empower rural communities in Guatemala to build "bottle schools": **schools built using plastic soda bottles and other trash**. Entire communities come together to clean their environment and build a bottle school, creating the opportunity of education and a brighter future.

14 bottle schools have been completed in 2 years, at an average cost of \$5,000 per classroom. There is a need for many more!

Why build bottle schools?

Bottle School projects have many benefits, including:

- **Providing much needed educational infrastructure for poorer communities**
- **Cleaning the streets of non-biodegradable trash**
- **Teaching environmental awareness, recycling and proper trash management**
- **Fostering community leadership**
- **Teaching new skills** that can be used to gain employment or on other community projects
- Spending capital **within the local community** where the school is being built
- Giving **kids ownership** of the school, because they build it with their own hands
- **Uniting communities**, they come together as one during the project

Building a bottle wall

Bottles

Students and volunteers stuff the plastic bottles with plastic bags and other insulating trash. More bags fill in the gaps between bottles.



Chicken wire
The bottles were bound between layers of chicken wire, which are attached to a metal frame.

Concrete
Up to three layers of cement mixed with sand were applied to the outside of the bottles, with orange paint adding the finishing touch.

ERIC BAKER/THE OREGONIAN

Insulating walls with **plastic bottles stuffed with inorganic trash** was pioneered in Guatemala by the organization Pura Vida. Instead of the common cinder-block walls used in Central America, "eco-bricks" are stacked in between chicken wire, and covered in cement. The bottles are used solely as insulation; the buildings are supported by professionally built, structurally sound frames. This method of construction is both eco-friendly and economical, and independent structural analysis has testified to the strength and safety of the buildings.

In our first project in Granados, Guatemala, in October 2009, over 5,000 plastic bottles were used to build two classrooms, containing 2053lbs of trash and using 9720lbs of cement. 297 children and youth currently attend the school, which serves a municipality of 13,860 people throughout 95.75 square miles.

Our vision is to enable communities across the world to build bottle schools, wherever there is a need. We curate the Bottle School Manual, an online step-by-step guide to building a bottle school. It's a wiki, so anybody can edit it and it's continually evolving - take a look, see what you think, and help us make it better!

If you or your community, school or organization would like to build a bottle school, great!!!

See more info on how to build a bottle school in your community. The [Bottle School Manual](#) is a free online step-by-step guide to building a bottle school. The idea is that it should be all you need, working with a skilled engineer/foreman, to build a bottle school. It's a wiki which means that anyone can edit - you can help improve it.

Read more : <http://hugitforward.org/contents/about>