

Recycling

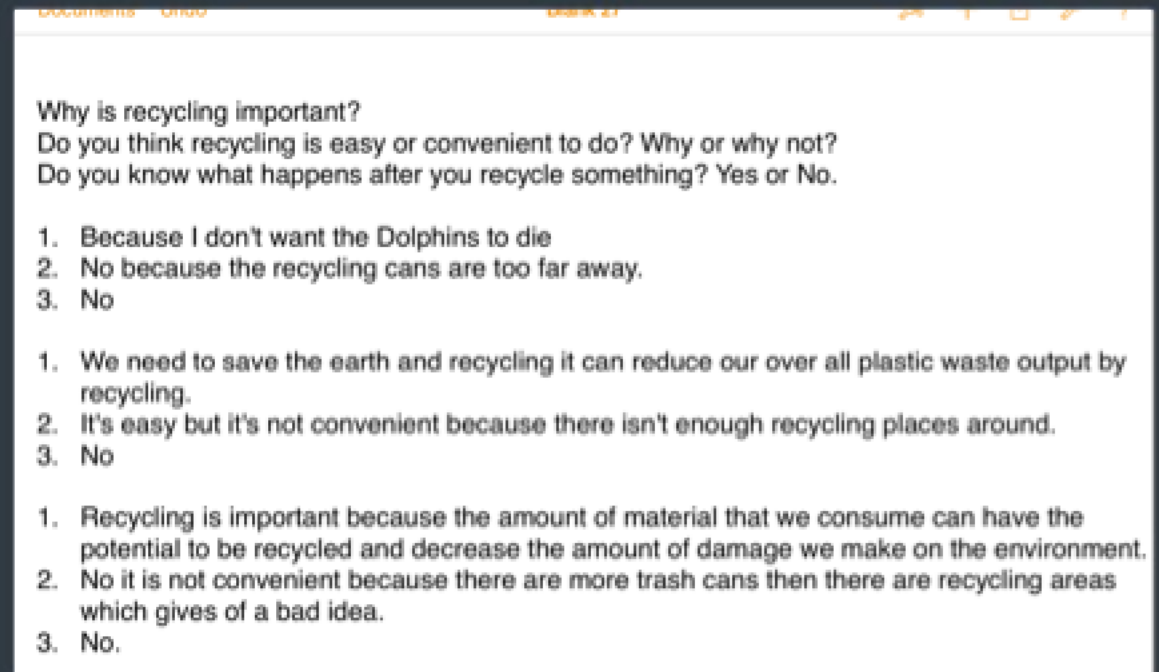
Sam, Erika, and Audreen



Making the recycling process

Easier And more Effective

We asked some people about their knowledge of recycling and their personal opinions. Questions like:



Documents - Unlabeled

Why is recycling important?
Do you think recycling is easy or convenient to do? Why or why not?
Do you know what happens after you recycle something? Yes or No.

1. Because I don't want the Dolphins to die
2. No because the recycling cans are too far away.
3. No

1. We need to save the earth and recycling it can reduce our over all plastic waste output by recycling.
2. It's easy but it's not convenient because there isn't enough recycling places around.
3. No

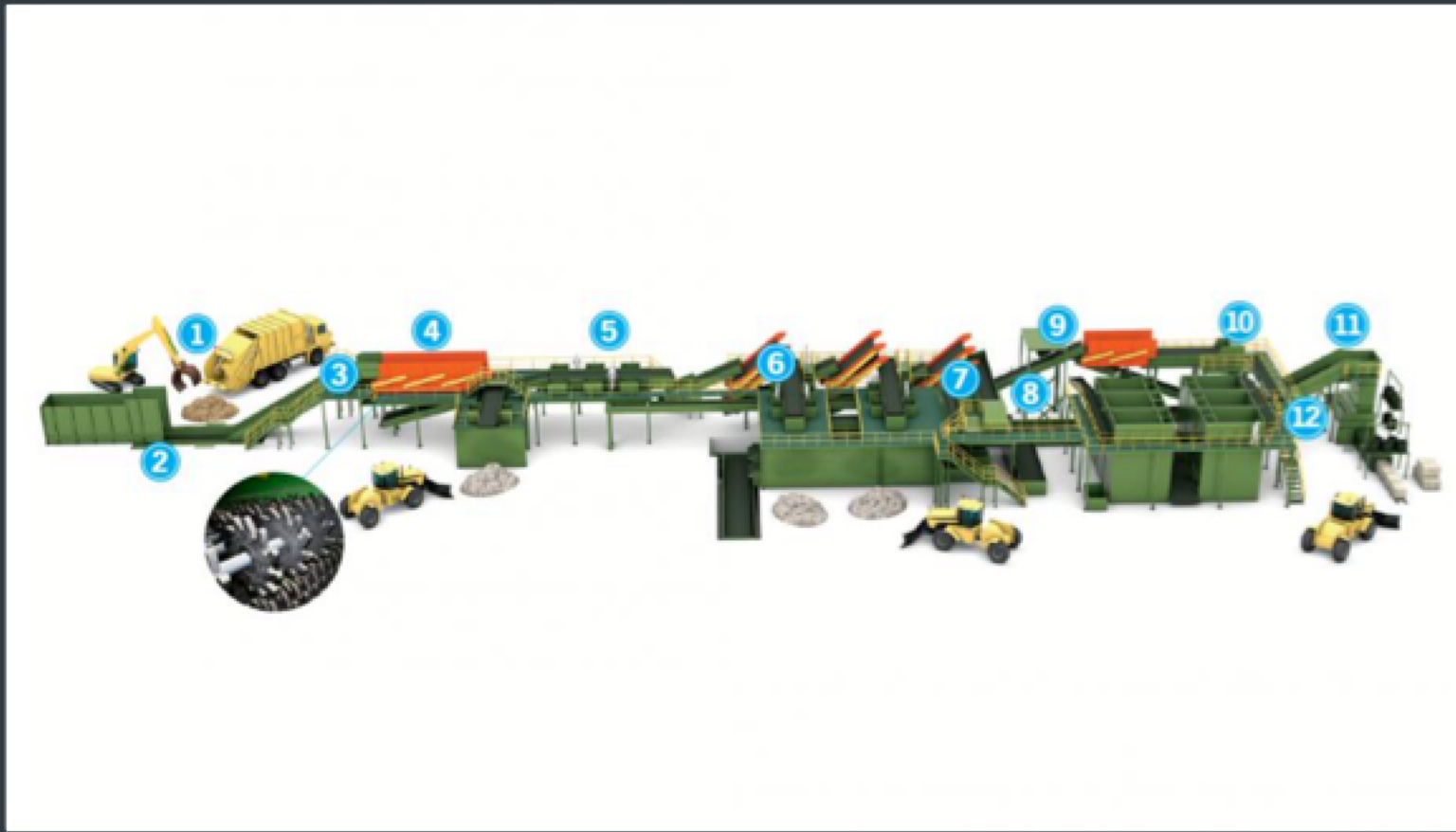
1. Recycling is important because the amount of material that we consume can have the potential to be recycled and decrease the amount of damage we make on the environment.
2. No it is not convenient because there are more trash cans then there are recycling areas which gives of a bad idea.
3. No.

A lot of people knew why recycling is important or had their opinion on it but a lot of them did not think that it was convinient and didn't know what actually happens after they recycled something.

Elevator pitch: While doing it, I messed up a few times and decided that I should restart. Once I finished, my parents gave me feedback. They said that although I had a hard time getting it right on the first try, my pitch was pretty good. They said that I should find more information of recycling to back up what I have to say, and come up with more ideas before deciding on what to design.

DEFINE: PROBLEM

Single-stream recycling



By looking at the diagram, it's easy to say it doesn't look environmentally friendly or economically smart. This is the machine that recycled material goes through to get separated and start the process again. The most annoying issue with recycling is separating trash, paper, glass, plastic etc. Even though recycling can help the environment, the process after cancels out the good it does.

People tend to recycle in large quantities which can lead to contamination and mixtures of material that can't be together. Polyethylene terephthalate (PET) and polyvinyl chloride. People aren't aware that there are two different plastics and if these two are mixed together, it could ruin the entire batch. This is one of several reasons why separating recyclables is important and should be made easier.

With the design we created, it could hopefully decrease the amount of time, money, contamination, motivate people more, and help the earth.

We solve:

Since our problem with recycling was finding a more efficient way to get things recycled and also a more convenient way.

We decided that there should be multiple cans together to separate different types of recyclable material.

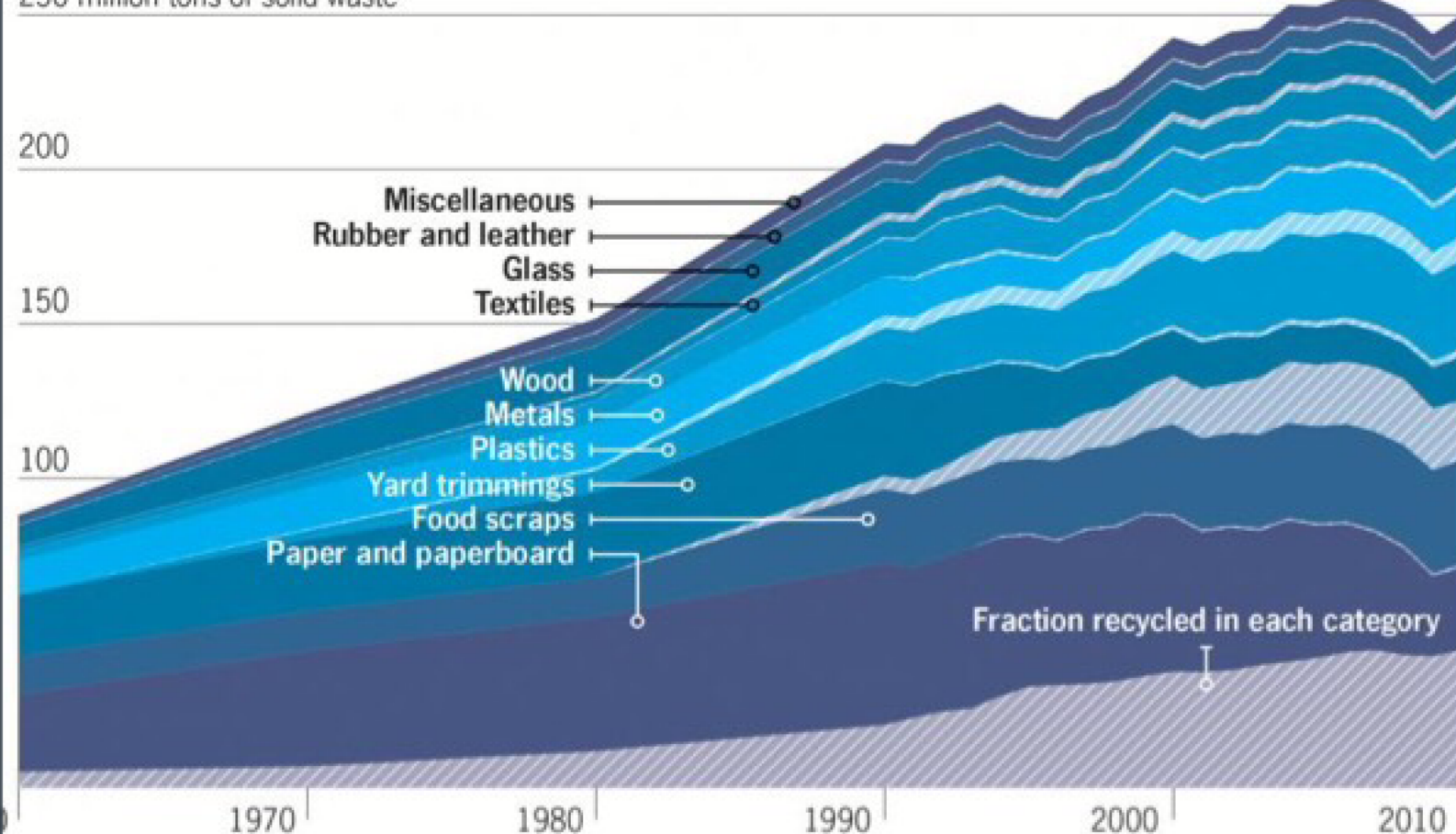
Keeping the trash cans all near each other so trash and recyclable items could be thrown out conveniently for the people and for the process after.

We considered making a game of it, but decided that most people would eventually break it.

Also, sharing information on why recycling is important and what happens when you don't recycle to be shown to the students, so they are aware of the consequences and are more motivated to recycle.

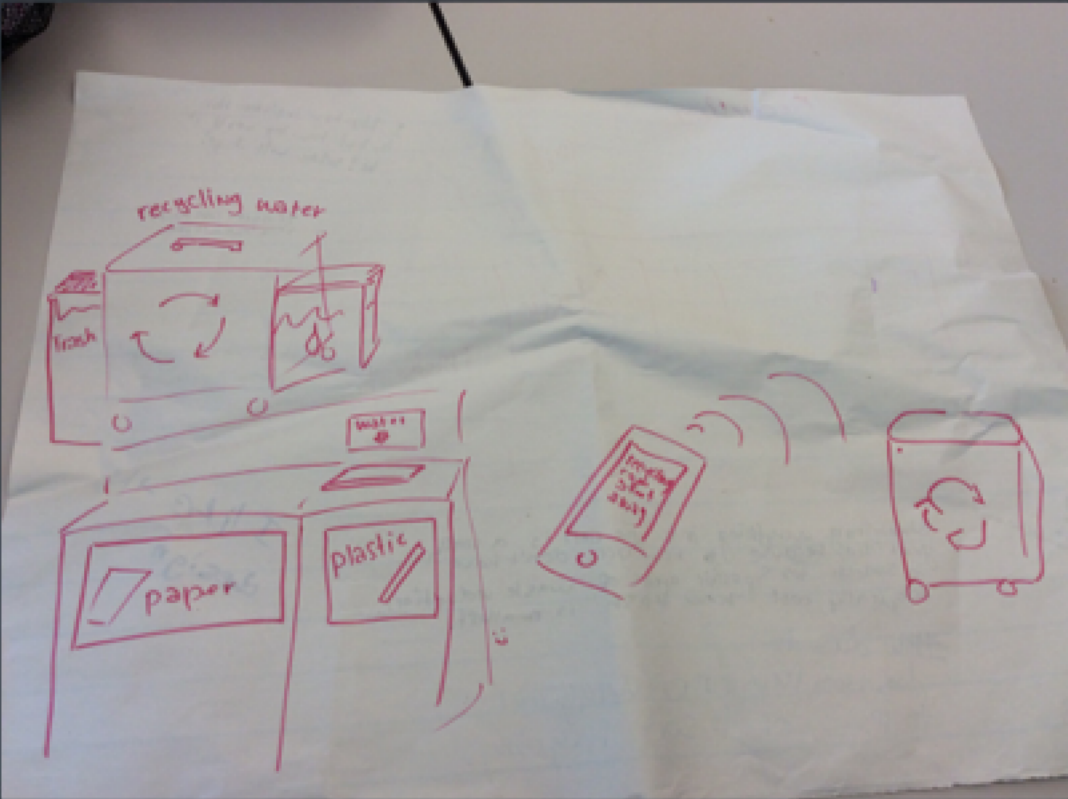
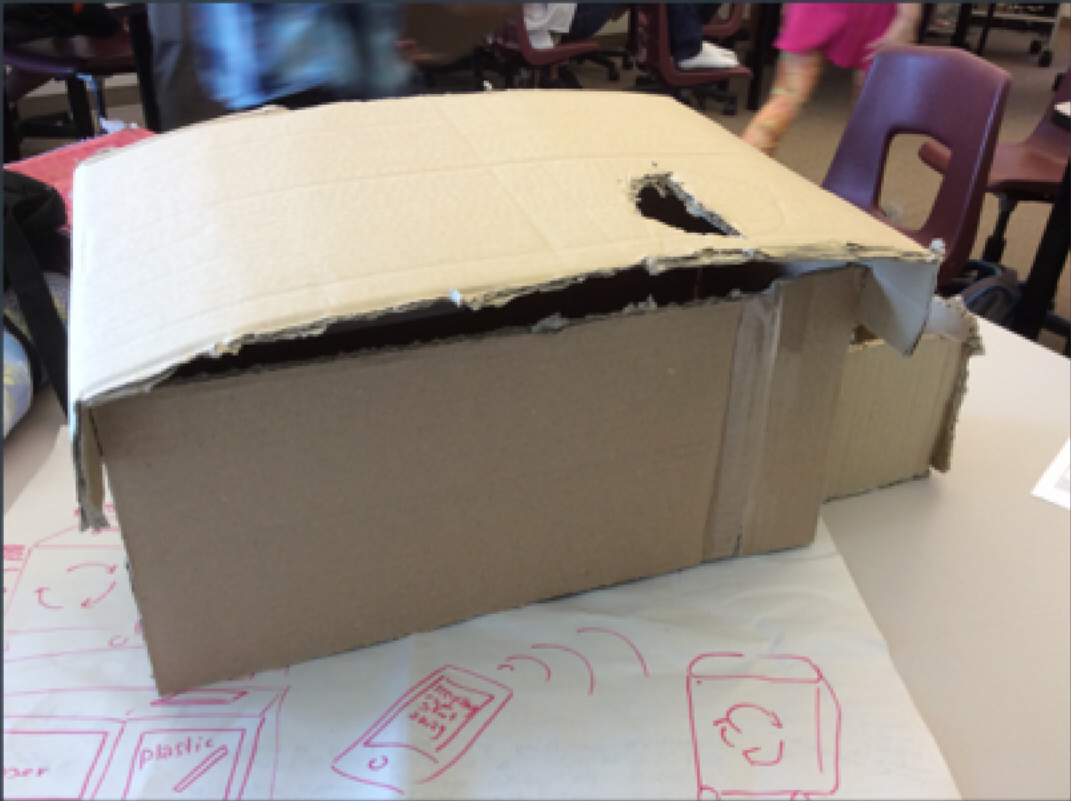
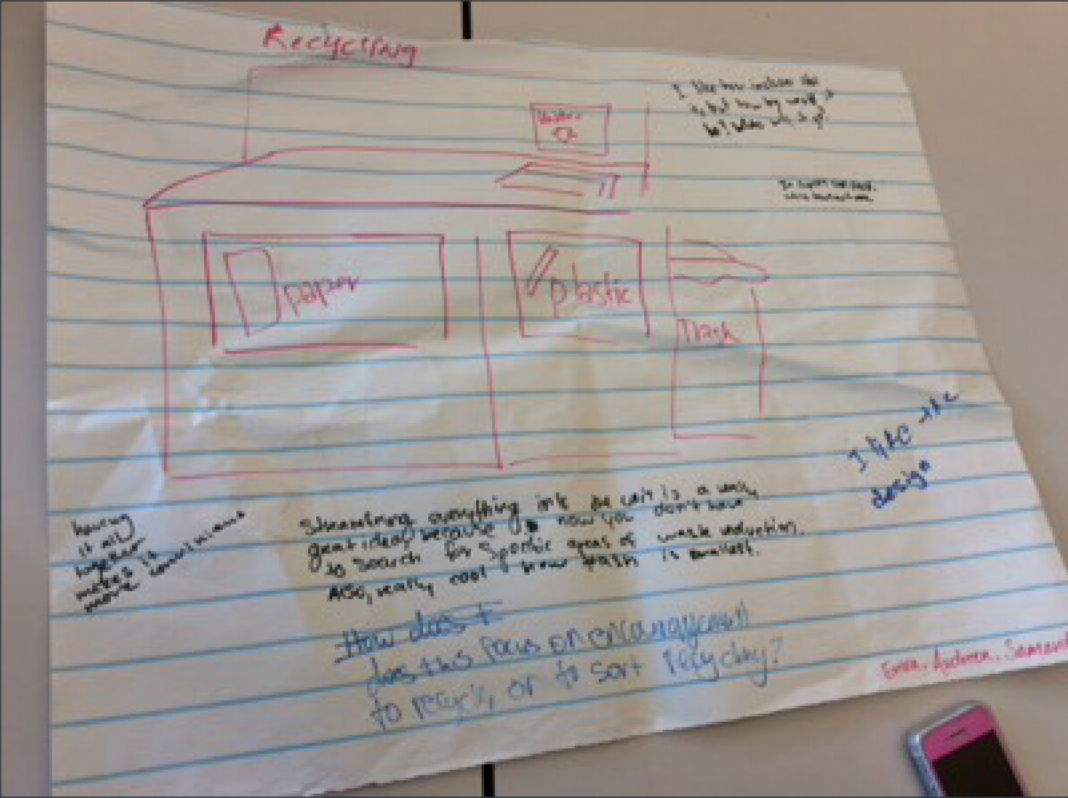
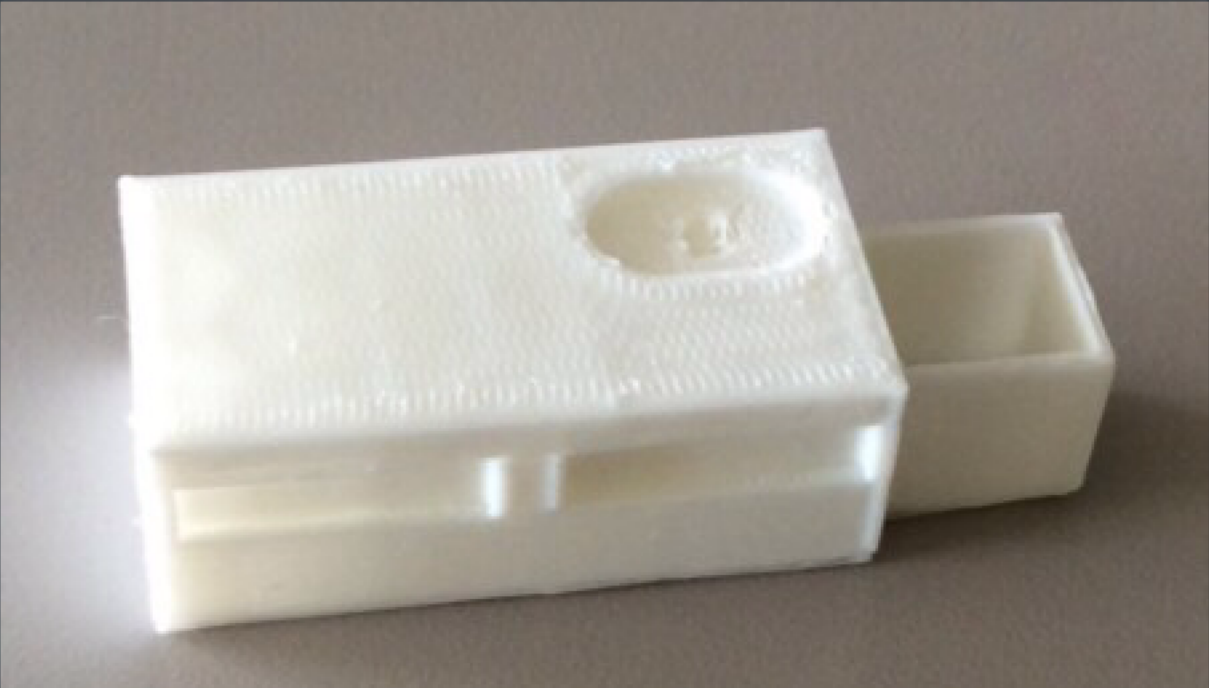
Recycling Rates in the U.S.

250 million tons of solid waste



People are just told to recycle because it's good. This can be a good thing because people actually recycle. However they don't know the countless materials they go through everyday; has the potential to be reused. Maybe if people become more aware, the environmental problems can decrease.

PROTOTYPING



TESTING, SCIENCE

Testing:

We asked people if they would put this in their homes as well. A lot of people said no. It looks too similar to things you'd see in public, not in homes.

Science

:acrylic sheet

-The acrylic sheet recycled exhibit properties similar to the original acrylic plates

-The advantage is that this type of acrylic has the value 30% smaller than a conventional acrylic plate, with the great advantage of being a product which avoids the pollution of our planet, by being produced using materials that would be discarded at nature.

-here's a video from Brazil showing how it's done <http://g1.globo.com/economia/pegn/videos/t/todos-os-videos/v/reciclagem-de-acrilico-e-uma-otima-opcao-para-negocios-sustentaveis/2140828/>

:plastic eating fungi

-The common plastic is used for everything from garden hoses to shoes and truck seats. Once it gets into the trash stream, it persists for generations. Anyone alive today is assured that their old garden hoses and other polyurethane trash will still be here to greet his or her great, great grandchildren.

-The fungi, *Pestalotiopsis microspora*, is the first anyone has found to survive on a steady diet of polyurethane alone and do this in an anaerobic (oxygen-free) environment that is close to the condition at the bottom of a landfill.

