Biodegradable Plastics

Copley, Marty (School: Belfry High School)
Hatfield, Braxton (School: Belfry High School)

A major issue we are facing as a whole people is global pollution ranging from ruining our natural ecosystems to air pollution. Our solution is changing the pollution into being less potent for our environment. This happens to be biodegradable, compostable plastics. We have engineered a new type of plastic that when added to the natural environment will degrade fully in just one week. Plastic is a simple substance to understand, we found that plastic is nothing but polymers broken down with acid and changed into different forms of matter. We have used two different substances when creating our plastic, cornstarch and gelatin. Our cornstarch-based plastic is best suited for our idea when creating a filament used for 3-D printing, and our gluten-based plastic is best used for packaging needs. From our research, we have concluded that the switch from toxic chemicals that make plastic, to all-natural compostable biodegradable plastics will be a journey, but we believe it can be done. Furthering our research and using different substances, along with cornstarch and gelatin, is the key to our future success in the plastic industry, saving our environment one step at a time.