Students Name:
Amarri Knights

What problem does your design address? (Attach extra sheets as needed)
Reducing school food waste by turning wasted food into fertilizer and pet food through composting.

What is the name of your school?
North Elementary School

In which county is your school located?
Monongalia

Circle your grade level:
Kindergarten 1st 2nd 3rd 4th 5th

What email address can be used to notify you if you win?
dosingh-knights@email.wvu.edu

What is your home address?
1395 Headlee Avenue, Morgantown, WV, 26505

What is your phone number?
304-680-4925 or 304-793-7606

Winners will be notified by email and announced on social media.
@WVUStatler
facebook.com/wvucemr

www.statler.wvu.edu/outreach/essaycomp
The Trasher Slasher

Amari Knights, 3rd Grade, North Elementary School.

At lunch every day kids at my school, kids waste the food they don't eat or don't like. Sometimes I do that too but not all the time because I give the things that I do not like to people that do like it. But sometimes no one likes it so I toss my leftovers. But I try to eat as much as I can so that I do not waste a lot. But with some kids, if it looks too nasty, like brown gravy, they won't even try the food, so I ask for it. And then if they feel comfortable giving it to me they hand it over. If they do not, they sadly waste it. I wish we would not waste as much as we do, but sometimes my friend and I do not like the stuff we are served.

In America, we waste about 360 million pounds of food every day! Once I heard that I decided to come up with a solution. What if we can use that wasted food in a good way. Thus, I created the Trasher Slasher.

Before I go any further, have you heard of the word compost? You've probably been wondering what compost has to do with food waste. Well, compost is a mixture of wasted or old or even half eaten food or organic materials that has been broken down into a fertilizer-like material. My plan will not use rotten food, just good food kids don't like.

So the way the Trasher Slasher works is, when you don't want something you put it in a green bin. Once it's full, you treat it to get compost or 'cooked' organic materials. Then you can use it for a lot of different benefits. Here are some benefits for the Trasher Slasher: garden compost, or dog or cat food.

In order for you to get compost you usually have to get worms and put it outside to get it heated, not to mention the flies and smell! If the compost pile is near the school's kitchen it will
violate health codes because of the worms and flies. I thought about that so I decided to use artificial heat sort of like an oven that will replace worms and provide the heat for composting too. Fun fact: it can take 6 months to year for worms to break down the food waste into compost. Once you turn on the artificial heat or burner in the Trasher Slasher it will take approximately 1 to 2 days for the food waste to break down into compost. Then you simply open the Trasher Slasher Dumper, take out the compost and spread it on the school garden beds or in the high tunnel. Local farmers can also purchase your compost for use on their own farms. Using the compost from the Trasher Slasher can save thousands of dollars a year because you will not have to buy fertilizer.

The compost materials from the Trasher Slasher can also be used to make pet food because when the food waste is 'cooked', it removes the bacteria from the food. This makes it safe to use in pet food. If you want dog or cat food you use the same steps to get compost, then you sell it to a business that can use the compost materials or 'cooked' food as an ingredient for pet food. You can make a better and improved 'Blue Buffalo' pet food.

Warning: ORGANIC materials only in the Trasher Slasher, and no rotten foods. Please teach children how to use the Trasher Slasher.

For this project, I looked up how much food is wasted, and I learned about composting when I went to a conference with my mom. So I put the two things together. I also looked up the best design for my Trasher Slasher by seeing how people built their composting bins. I search for composting bin designs on bing.com.
Trasher Slasher

I will slash your trash!

The Dumper

Trasher Slasher Picker Upper

controls to set speed of mixer and temperature of oven.

covered lid to keep flies out.

legs
Add food waste (organic materials only) to burner/heating unit to "cook" food waste into compost. Mixer or rotating arm with spoons to mix food waste so it cooks evenly. Composted materials leaving unit.

Not drawn to scale.