

Dear Mr. G,

We've been thinking about an improving plan for the Lower School building at XXXXXX. In science we've been learning about Climate Change and we had a list of ways to help solve the problem. Our group picked "come up with ways to make the lower school an eco friendly building."

We think XXXXXX should have a green wall and roof. A green wall is a wall that has vines or other plants on it. A green roof is a roof on a building that has a garden on it. One reason we think XXXXXX should have a green wall is because vines collect more carbon dioxide than trees. We should have a green roof because we can grow crops to give local food banks more fresh food and the garden can collect some more carbon dioxide. Collecting carbon dioxide is good because the carbon would not be in the atmosphere to collect heat and if we keep collecting heat in our atmosphere, it will be way to warm in our world.

Also, XXXXXX should have a farm off campus. We could put it near XXXXXX. We could raise chickens and pigs to eat the cafeteria's natural waste. We could also raise sheep for wool and goats for goat's milk. We can also have a compost pile on the farm. Getting our food nearby means less fossil fuels are burned to get it to us.

We think XXXXXX should have LED light bulbs. They are important to have because they can be brighter and they use less energy than incandescent and CFL light bulbs. LED light bulbs are less energy using and they cost less than CFL light bulbs over time. Over 25 years, using incandescent light bulbs costs \$201.00, CFL light bulbs cost \$48.00, and LED light bulbs cost \$38.00 making LED light bulbs cost less over long periods of time. Each LED light bulb lasts for 25,000 hours.

	<b>Incandescent</b>	<b>CFL</b>	<b>LED</b>
<b>Approximate cost per bulb</b>	\$1	\$2	\$8 or less
<b>Average lifespan</b>	1,200 hours	8,000 hours	25,000 hours
<b>Watts used</b>	60W	14W	10W
<b>No. of bulbs needed for 25,000 hours of use</b>	21	3	1
<b>Total purchase price of bulbs over 23 years</b>	\$21	\$6	\$8
<b>Total cost of electricity used (25,000 hours at \$0.12 per kWh)</b>	\$180	\$42	\$30
<b>Total operational cost over 23 years</b>	<b>\$201</b>	<b>\$48</b>	<b>\$38</b>

<https://www.thesimpledollar.com/the-light-bulb-showdown-leds-vs-cfls-vs-incandescent-bulbs-whats-the-best-deal-now-and-in-the-future/>

We think that XXXX also should have Solar Panels on the roofs because they are eco friendly. Even though they cost a lot of money, they are a renewable source of energy and once you pay for them they are totally worth it because they use our sun which is natural and creates energy. Also, it helps with climate change because it uses sun instead of burning fossil fuels to produce energy.

We think instead of regular grass we should have Eco Lawns. Eco Lawn is a type of grass that isn't turf but it grows slower, so we don't have to burn as much fossil fuels in gas to mow the lawn. Also, we don't need to water it as much so we can use the water to drink and do a lot of other stuff with the water. (<http://www.eco-lawn.com/>)

We also think we could have a white roof for the lower school. We think we should have a white roof because it keeps the building cold but not too cold in the summer. Also, it doesn't produce as much climate change because it has a white roof not a black roof so it just reflects the light into space instead of soaking up the light and creating heat in the atmosphere and lower school building.

We hope you consider our letter and try to keep the campus Eco friendly. Also, like we said in the beginning of the letter "We should come up with a way to make XXXXXX an even more Eco friendly campus."

Thanks,

Paige, Alice and Luke