

Proposal to Replace Styrofoam Trays With Recycled Paper Trays

Presented by 5th the Grade Class from Kramer Lane

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Rationale

The fifth graders of Kramer Lane would like to propose the idea of replacing the currently used polystyrene food trays with recycled paper trays in our school cafeteria. It can make a big difference in our school as well as the environment. The 5th graders of Kramer Lane feel that, as the oldest group at Kramer Lane, we can demonstrate responsibility and positively make a difference in our school before we graduate from the school we know and love by presenting this proposal.

There are several reasons why this proposal is being made. Environmentally, polystyrene is harmful to the earth. Practically, the polystyrene trays frequently break before we even arrive at our tables which causes a waste of food and requires Miles, our custodian, to clean up the messes made due to the flimsy trays we use today. In addition, food is often spilled on our classmates.

As responsible citizens of our school, we, the fifth graders, are proposing this change to protect our environment and also to help keep our cafeteria clean during our lunch period.

Negative Effects of Polystyrene on Our Environment

By: Kayla Mendes and Anant Sriram

There are many effects that polystyrene has on our environment. One of the biggest reasons polystyrene is bad for the environment is because it doesn't disintegrate; it just sits in our landfills for over 400 years! It takes up room for waste that can naturally turn into compost and will disintegrate. If there is too much garbage that will not break down naturally, it might have to go into the oceans or on barges because there will be no more room in the landfills.

Polystyrene not only hurts our earth, but it also hurts animals and humans. When animals wander into our landfills and try to eat the polystyrene, they may start to choke or get ill. Humans may get ill when the chemicals from the polystyrene rub off onto the food we eat. It can also cause marine life to get ill. If the polystyrene breaks down into little pieces and winds up in our oceans, marine life may think it is food, so they may eat it. Fish cannot digest the polystyrene. In humans, even a small dose of polystyrene can cause tiredness. In larger doses, it can cause down-syndrome and even cancer. Polystyrene contains benzene. Benzene is a colorless liquid with a sweet odor. It evaporates into the air very quickly and dissolves in water. It is highly flammable and is formed naturally and through human activities. Benzene is widely used in the United States; it is in the top 20 chemicals used in

manufacturing. Some industries use benzene to make other chemicals which are used to make plastics, resins, and nylon and other synthetic fibers. Benzene is also used to make some types of rubbers, lubricants, dyes, detergents, drugs, and pesticides. Natural sources of benzene include emissions from volcanoes and forest fires. Benzene is also a natural part of crude oil, gasoline, and cigarette smoke.

Eating or drinking foods that contain high levels of benzene can cause vomiting, irritation of the stomach, dizziness, sleeping, convulsions, rapid heart rate, and even death. Therefore, for environmental and health reasons, we are recommending changing the types of trays we use during lunch to recycled paper.

Quantity Impact Study

by: Lauren DeStefano and Shannon Dowd

As members of the tray committee, Lauren DeStefano and Shannon Dowd, interviewed and obtained raw data from the Kramer Lane Kitchen staff. They provided us with six days worth of spreadsheets that contained information regarding how many lunches were ordered daily.

We verified the daily calculations and used that data to create an accounting of the mean, or average, amount of trays used by Kramer Lane students on a daily, monthly, and yearly basis. The assumption was made that the number of lunches sold equal the number of trays used. The results were astounding!

Analysis:

In six days Kramer Lane sold 734 lunches.

This equals an average of 122 trays per day,

2,440 trays per month,

and a total yearly average, based on a school year of 180 days,

of 21,960 trays!

We calculated how many trays our class alone used since 1st grade, and the total is about 109,800!

Realizing that Kramer Lane is the smallest school in our district, we were overwhelmed with the idea of the impact on the environment if this proposal was to be implemented district wide.

Positive Affects of Using Recycled

Paper Products

by: Kayla Griffin and John Neuman

We realize the importance of using environmentally friendly paper products. This is one of the reasons we are presenting this proposal. According to our research, recycled paper is less expensive than polystyrene, and it is better for our environment. Recycled paper saves more than 40% of energy resources during production, as compared with other manufacturing industries, and it saves landfill space. Recycled paper products also decrease air and water pollution due to the differences in the manufacturing processes because the process is cleaner and more efficient. Using recycled paper products also helps to conserve our forests, one our most valuable natural resources. Recycling reduces the total number of trees that are cut down to make paper and can reduce overall demand for wood.

During our research, we discovered that chemicals are used in manufacturing products like polystyrene trays. The solid waste from the manufacturing of products like these must be disposed of and wind up in landfills. Liquid waste from manufacturing is often flushed into streams or seas. The gasses go out into the open air and may be a factor that affects global warming. Most companies that make recycled paper are earth friendly and produce less waste and reduce the need for landfill space.

SOURCES

Agency for Toxic Substances and Disease Registry

<http://www.environmentaldefense.org>

www.ecomall.com

www.treecycle.com

www.virtualsciencefair.org

www.teenink.com

www.paperrecycles.org

www.lime.com