



CITY OF LAKEWOOD
SUSTAINABILITY PLAN
2018

FOR KIDS!

BY DUNSTAN MIDDLE
SCHOOL STUDENTS



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PHOTO BY: AVERY ANDERSON

INTRODUCTION ➞➞➞

WE ARE SO LUCKY TO LIVE IN A PLACE LIKE LAKEWOOD, COLORADO! Lakewood has it all: mountains, parks, lakes, and beaches. If you like to hike, bike, skateboard, or just go to a park near your house to relax--these amazing opportunities are available to us all!

There are many ways you can help keep Lakewood a great place to live, and that is exactly what this book is about! This kids' version of the Lakewood Sustainability Plan will inform you about what you can do to help Lakewood's environment and community as well as explain our goals to keep Lakewood a healthy stable environment for us all to live in. After all, everyone wants to be able to look back in 10 to 20 years and say, "Lakewood is still a beautiful place to live, and I have been a part of that success!"

The pictures that you see in this book were drawn by kids, the photos were taken by kids, the graphs were designed and analyzed by kids, and all of the information was written by kids--for kids! We took the original City of Lakewood Sustainability Plan that the experts in Lakewood wrote and made that plan easier for kids to understand. This plan will help you understand what you can do to help keep Lakewood a place that is amazing to live in now and 100 years from now! We really hope you enjoy the information contained in this book and find it helpful to make positive changes in your own neighborhood!

Sincerely,
*The 6th, 7th, and 8th grade students of
 Dunstan Middle School,
 Sustainability Elective, Fall 2018
 Ms. Hoffa's Class*

Sustainability
 sus·tain·a·bil·ity
 /səˌstænəbɪləˈdē/

Sustainability has beneficial outcomes for our planet, the environment, and us. Sustainability means there is balance between the environment, economy, and society in order to conserve our natural resources for generations to come.



le SUSTAINABILITY

You probably noticed the word “sustainability” in the title of this plan. Sustainability means creating a balance between the environment, the economy, and our society in order to conserve our natural resources for generations to come. WE are stewards of our environment and one of the first generations to deal with the big impacts of climate change. That means we need to take care of our environment with the future generations in mind. Sustainability is very important to make sure that our environmental health and quality of life become better for our generation as well as future generations. We want to involve ALL of Lakewood’s citizens in making Lakewood a healthy community. That is why we have made a version of Lakewood’s Sustainability Plan for our generation.

OUR PLAN

Our Kids’ Version of the Lakewood Sustainability Plan focuses on how Lakewood as a community is trying to help the environment. We will show how our community can come together to try and make our neighborhoods better places for us all to live in, and remain good places for future generations. In every chapter there are goals that our city wants to achieve and specific strategies to do this, so everyone can participate. For example,

- **Chapter 1** is all about climate change and how we can reduce greenhouse gas emissions that come from cars, factories, and landfills in order to limit climate change.
- **Chapter 2** discusses solar power and other cool renewable energy sources and energy and water conservation.
- **Chapter 3** is about how we can keep our local economy stable and sustainable.
- **Chapter 4** helps explain how we can live zero waste lifestyles and make Lakewood a zero waste community.
- **Chapter 5** discusses all sorts of cool ways we can work together as a community to help us achieve our goals for diversity and for public health.
- **Chapter 6** teaches us all about keeping our natural environment healthy.
- Finally, **Chapter 7** is about choices available to us to make transportation sustainable.



Throughout our Kids’ Version of the Plan, we talk about why keeping the environment balanced is important to our generation and the future generations. Since the original Sustainability Plan was created, neighborhoods around Lakewood have been helping more and more! There are all sorts of ways kids can help out and spread the word of keeping the world not only green but also clean, and all it takes is one small step from us (making sure we show kids and other people how they can help)! Now it is your turn to dive in to learn all you can about sustainability in Lakewood and how you can help out around your neighborhood!

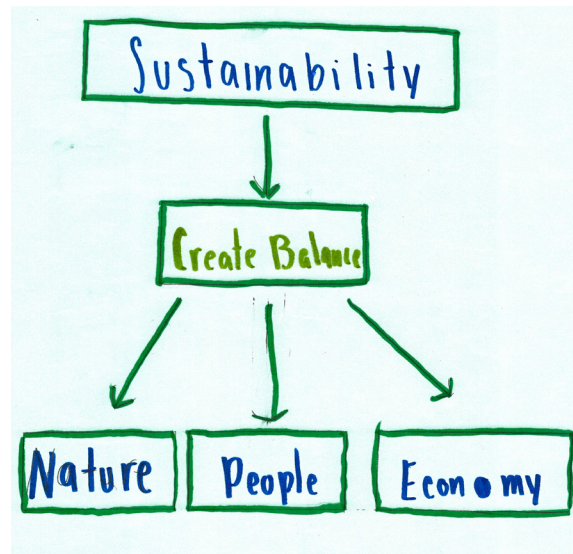
PHOTO BY: SIERRA LONGLEY

IMAGINE WHAT WOULD HAPPEN...

We students at Dunstan Middle School are very concerned about the potential impacts that not sustaining our environment could have for the future of Colorado and the rest of the world. So we are deciding to go a different way, a way that is more environment-friendly and would help everyone out. A singular kid can make a lasting impact on the world, and those of us in Ms. Hoffa's class aim to be those kids.

As you know, we have written a kids' version of the Lakewood Sustainability Plan, to make it so that kids in Lakewood can understand the content. This kid-friendly version of the Sustainability Plan will attract far more people- not just kids, but adults as well, and all of these people will have a massive impact on the environment. You see, Lakewood has 154,958 people in it as of 2017, the size of a medium-sized city. Now, think about the possible impact 155,000 people can make.

This document takes a look at each of the seven chapters of the Lakewood Sustainability Plan, and shows what kids can do to help in each category. Imagine what would happen if we all took action.

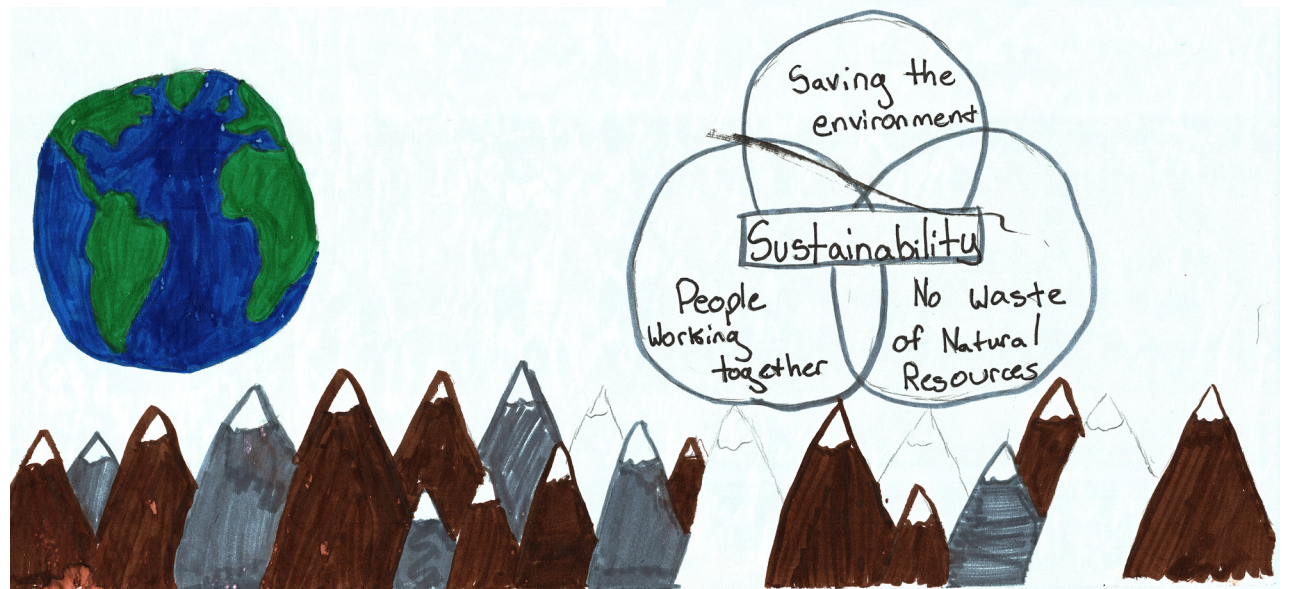


Real Definition

Sustainability means creating balance among the environment, the economy, and society to ensure that practices and decisions do not compromise the quality of life for future generations. Sustainability is not an end goal, but an approach that recognizes the relationships between natural, economic, and social interests.

4th grader Definition:

Sustainability is something that helps our natural resources, like trees, flowers, animals, water, etc. It helps with our environment, the quality of life, the balance of the Earth. It conserves our water, energy, light, waste, and our resources. It works with tools, recycling, and reusing. Sustainability is something we have been trying to do for a long time. Goods and services is also a part of this sustainability plan. It also helps our environment become a healthier place.



CLIMATE CHANGE AND ADAPTATION

GOAL:

* Minimize Lakewood's communitywide greenhouse gas emissions and prepare and adapt to ongoing climate change impacts.

PHOTO BY: AVERY ANDERSON

INTRODUCTION

SUSTAINABILITY HAS BENEFICIAL OUTCOMES FOR OUR PLANET, THE ENVIRONMENT, AND US. SUSTAINABILITY MEANS THERE IS A BALANCE BETWEEN THE ENVIRONMENT, ECONOMY, AND SOCIETY IN ORDER TO CONSERVE OUR NATURAL RESOURCES FOR GENERATIONS TO COME.

GREENHOUSE GASES

The Earth's atmosphere is made up of gasses like oxygen and nitrogen, and greenhouse gasses like carbon dioxide and methane. A greenhouse gas is a gas that traps heat in the atmosphere. Some heat needs to stay in the atmosphere to keep the Earth the right temperature for people, plants, and animals. But when too many greenhouse gasses are released and get trapped in the atmosphere, the "blanket" heats up too much, and this changes the climate on earth; this is called the "Greenhouse Effect". Increased greenhouse gas emissions affect Lakewood as a community because they cause climate change, which contributes to increased likelihood of disasters like droughts floods, extreme heat, wildfire, reduced snowfall, and decreased water supply. There are many things being affected by climate change such as sea levels, weather cycles, water, and ecosystem health. We will be writing about each of these.

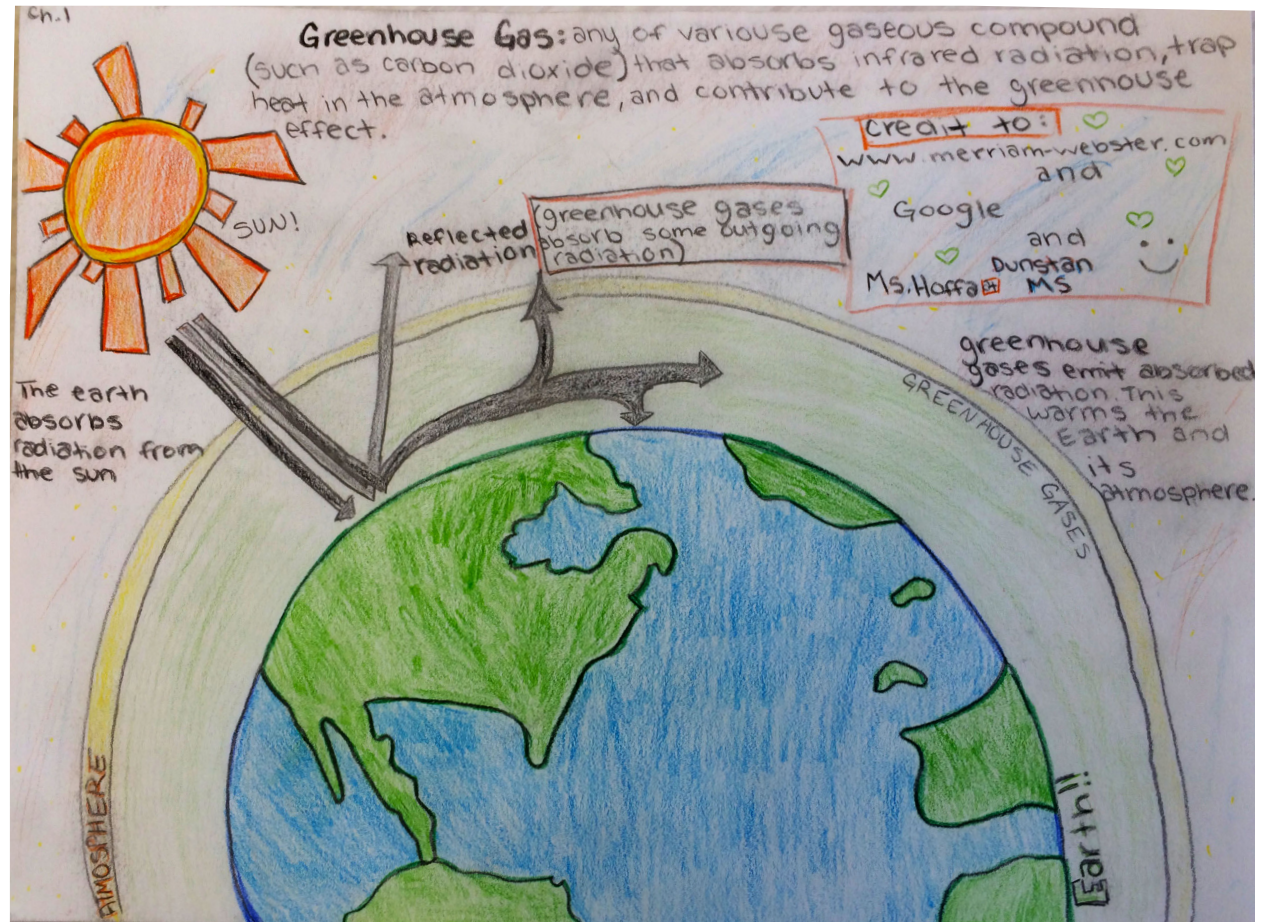


ILLUSTRATION BY: VAHLIN WILLIAMS

WATER, EXTREME WEATHER, AND CLIMATE CHANGE

Water is one of the most important things that we need to stay alive, and climate change impacts water in many ways. Climate change is causing droughts, reducing our groundwater supplies, affecting our water quality, our mental and physical health, and how our economy grows and reproduces. The most common way people experience climate change is through extreme weather events such as floods, hurricanes, heavy rainfall, droughts, and wildfires.

Climate change causes higher health risks, infections, diseases, and mental health and stress-related disorders. These are all worsened by extreme weather, air pollution, and other transmitted disease cycles. Many children are exposed to these problems in low-income communities, and they may not have access to the resources they need to help them deal with these impacts.



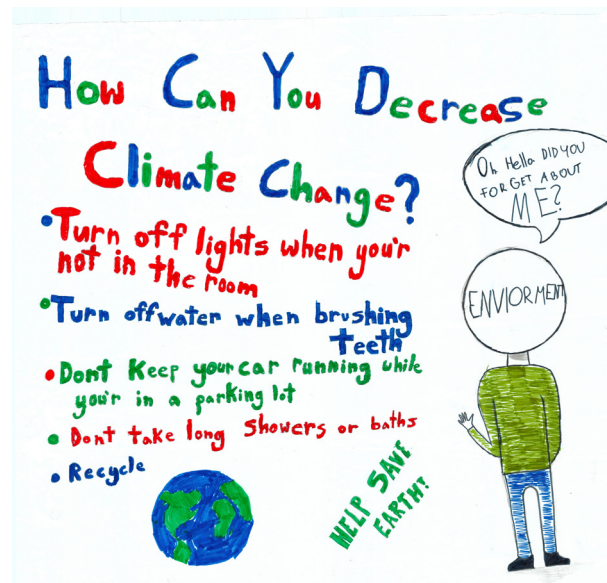
PHOTO BY: AVERY ANDERSON

MITIGATION AND ADAPTATION

One of the goals of this plan is to minimize Lakewood's communitywide greenhouse gas emissions and to prepare and adapt for ongoing climate change impacts.

MITIGATION is an idea that that we think can help Lakewood. Mitigation means limiting your negative impact on something. Greenhouse gas mitigation actions help prevent or reduce emissions of GHGs. As a community we can all help mitigate our emissions by implementing the ideas in this plan.

ADAPTATION is another way we can prepare for climate impacts. Our local temperatures are expected to rise by 2-6° Fahrenheit over the next few decades. Adaptation means to prepare for new conditions by changing things around yourself. We can do this by creating a plan for dealing with the local impacts of climate change. Adapting also creates opportunities for our future growth as a community.



WHAT KIDS CAN DO TO...

REDUCE GREENHOUSE GAS EMISSIONS

- Turn off the faucet when brushing your teeth.
- Ride your bike more.
- Tell your parents not to idle in their car.
- Turn off lights that are not being used.
- Carpool with your friends to school, or if you can't carpool, simply walk to school.
- Tell your parents to take the bus to work or bike instead of using their car
- Use solar panels because they use natural energy from the sun and save energy and things like oil and gas.
- Plant trees.
- Make a carpool map in the school so that more people can carpool making it so that there are fewer cars on the road to get to school which means less traffic and less idling.
- Reduce, reuse and recycle.
- Biking or walking instead of driving is always a great way to get exercise and can help climate change and adaptation everywhere, little by little.

IMPLEMENTATION OF OUR PLAN

One of the primary reasons why we need to implement a plan is to address climate change. This plan gives us real actions we can take so we can all work together to mitigate (reduce) emissions and adapt (prepare) for climate impacts. Lakewood needs implementation strategies to help our city's future.

ENERGY, WATER, AND THE BUILT ENVIRONMENT

The background of the page is a hand-drawn illustration. In the upper half, there are several tall, grey, rectangular buildings of varying heights, representing a city skyline. The sky is filled with horizontal blue wavy lines. Below the skyline, there is a dark blue rectangular box containing the word 'GOALS:' in white, underlined text. Below this box, there are three bullet points, each starting with an asterisk. At the bottom of the page, there is a cluster of small, white houses with black outlines and windows, and several green trees with brown trunks. The foreground is filled with horizontal green wavy lines.

GOALS:

- * Ensure affordable energy for Lakewood while transitioning to renewable energy sources.
- * Significantly enhance resource efficiency in Lakewood buildings.
- * Encourage development in Lakewood that values the natural environment and supports public health and community cohesion.

INTRODUCTION

THE CITY OF LAKEWOOD AND ITS CITIZENS RECOGNIZE THE ROLE OF ENERGY, WATER, AND THE BUILT ENVIRONMENT IN A SUSTAINABLE COMMUNITY. WE IMAGINE A FUTURE WHERE WE HAVE RENEWABLE ENERGY AND RESOURCE-EFFICIENT BUILDINGS. WOULDN'T IT BE GREAT TO FIND A WAY TO MAKE A MORE SUSTAINABLE ENERGY AND WATER SYSTEM FOR FUTURE GENERATIONS?

ENERGY AFFECTS EVERYONE

We have to use energy and water to live. Our question is, how can we use less of these resources and find more sustainable options? Resource efficient buildings increase water quality, reduce man-made greenhouse gases, and save energy and water so we have more available energy in the future. Energy and water conservation upgrades to homes and buildings are one of the simplest and most effective ways to protect our resources, save money, and reduce our emissions. New resource-efficient building systems have lowered energy usage dramatically. Newer houses are a lot more energy efficient, and our older buildings have a lot of catching up to do. According to a 2017 U.S. Census report, 92% of homes were built before 2000, providing a huge opportunity to save energy and money through improvements to existing homes and buildings. The time is now for the people of Lakewood to take advantage of resource efficient buildings.



ILLUSTRATION BY: VAHLIN WILLIAMS

"ENCOURAGING SUSTAINABLE DEVELOPMENT WITHIN LAKEWOOD MEANS THAT WE AS A COMMUNITY ARE MAKING THE MOST OUT OF OUR NATURAL RESOURCES, AND ARE NOT BEING WASTEFUL"

As we continue to develop and redevelop our community, we must do so in a way that honors and improves our natural environment. By having a sustainable environment and community, we are able to have more businesses and buildings, as long as we use renewable resources to power them.

Buildings and landscapes that are smart with their energy and water use strengthen our ability to get through and bounce back from floods, droughts, wildfires, and other climate threats.

RENEWABLE ENERGY

Almost half of Lakewood's greenhouse gas emissions come from building energy use, but only 28% of the electricity that powers those buildings comes from renewable resources. Meaning we are using up all of our coal, fossil fuels, and other resources that we can never get back. Natural resources are what we use for energy, they come from the environment. Renewable energy, for example solar power, wind power, and water powers are all good for the environment because they do not pollute, or produce greenhouse gases. Some natural resources are not renewable, like coal and fossil fuels, and using them pollutes the earth. That is why it is important not to use up too much of those resources, because they are limited. Polluting can affect our public health

because it makes our air dirty and it can negatively affect our health by breathing in bad air. Opportunities to use renewable energy in the United States are increasing. A lot of states are allowing facilities where renewable energy is created, like solar panel farms, wind turbine farms, hydropower dams, and more.

AFFORDABLE ENERGY

One of Lakewood's goals is to ensure every house and business can have affordable energy. Over 60,000 homes and 14,000 businesses are in Lakewood. The average monthly electricity bill for homes is \$81, and the average electricity bill for businesses is \$449. We need to make affordable solar energy available to more people so that all residents start using more of it. It's also to make

sure everyone knows about the benefits of reducing energy use like saving money and creating energy that can be used over and over for a long amount of time. We want to make sure that neighbors and businesses know how the energy being created affects our systems and costs.

WATER CONSERVATION

Lakewood is trying to find ways to help reduce the amount of water we use. There are two main parts to water use: outdoor water use and household water use. The main parts to outdoor use is agriculture, farming, and landscaping. Household water is used for activities like taking showers, using the sink, and washing clothes and dishes. Reducing water consumption from outdoor and indoor use will help save energy and that will save money.

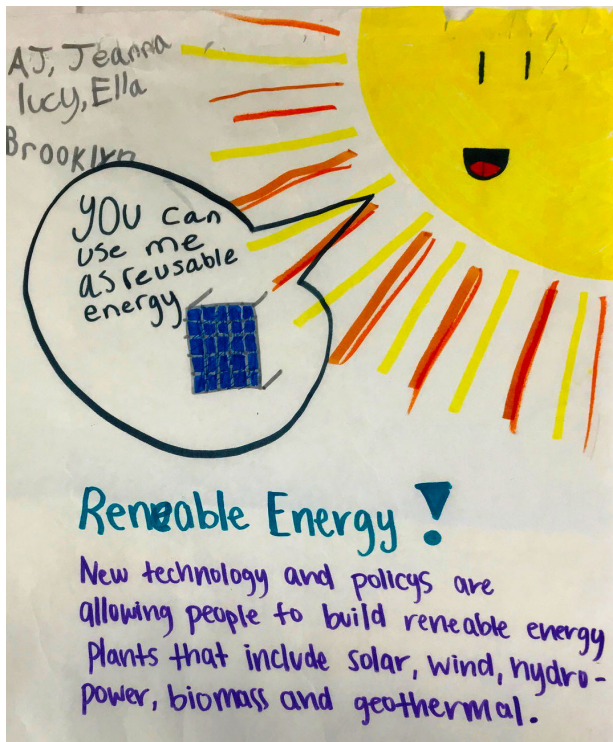


ILLUSTRATION BY: ELLA DRYDEN

PHOTO BY: COLIN
HEWITT



SUSTAINABILITY

Jack Nelson



ILLUSTRATION BY: JAYCOB NELSON

ILLUSTRATION BY:
KARA HARRIS

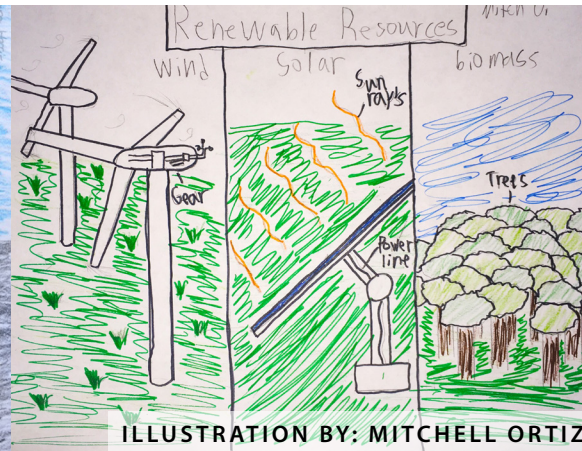


ILLUSTRATION BY: MITCHELL ORTIZ

FIELD TRIP TO CARMODY REC CENTER

LEARNING ABOUT RESOURCE EFFICIENT BUILDINGS

Our field trip was all about learning how the Carmody Recreation Center is a resource efficient building. We went to the Carmody Rec Center and we got a tour around of all the places that use certain kinds of energy and how they reduce the amount of energy they use. They not only gave us a tour and talked to us but they gave us information and statistics of the energy they've used over the past few years (along with how much money they saved). Here are some cool ways that Carmody Rec Center is resource efficient:

- The building is heated and cooled by using a machine that uses three vents to bring in air from outside. Then it heats it up or cools it down, which helps save money for Carmody.
- To keep the air in the pool ventilated, they installed three other vents that absorb all the humid air from the pool area, to keep it cooled down.
- They installed LED lights, which are better than the lights the recreation center had before. This is because if you dropped one of the older light bulbs, they contain chemicals inside making it more dangerous for human health. The new LED lights they installed are safer, save more energy, and last longer, too!
- Last, they are using a better system for cleaning their pool. They have installed new pipes and filtration systems.

Carmody Recreation Center has become a more resource-efficient building. More buildings in Lakewood should be more like Carmody Rec Center to decrease greenhouse gas emissions. Seeing all of the energy and water efficient improvements helped us think about ways we could save energy and water in our homes & neighborhoods.



WHAT KIDS CAN DO TO...

SAVE ENERGY AND WATER

- Change light bulbs in your house to LED light bulbs.
- Make sure to always turn off lights when you leave a room.
- Get plants that use less water.
- Turn the sprinklers off when it is raining and use them only when water is needed.
- Get shower heads that release less water.
- Take shorter showers.
- Turn the water off while brushing your teeth.
- Talk to your parents about getting your energy from renewable sources. Things like solar panels, wind mills, and hydro power
- Get a water barrel, which can use rainwater to water your garden.
- Encourage/persuade your teachers to go on field trips like our trip to Carmody Rec Center to learn about energy efficient buildings.
- Plant a tree and over the years it will grow and cover the house so you don't have to use as much air conditioning.
- Look for leaks throughout your house and tell your parents about it.
- Unplug things that use outlets even when not in use around your house
- Go to an energy conservation workshop, like the one held by the Green Mountain Sustainable Neighborhood
- Instead of using screens like TVs and iPads as much, go outside more and use things that don't burn up energy.

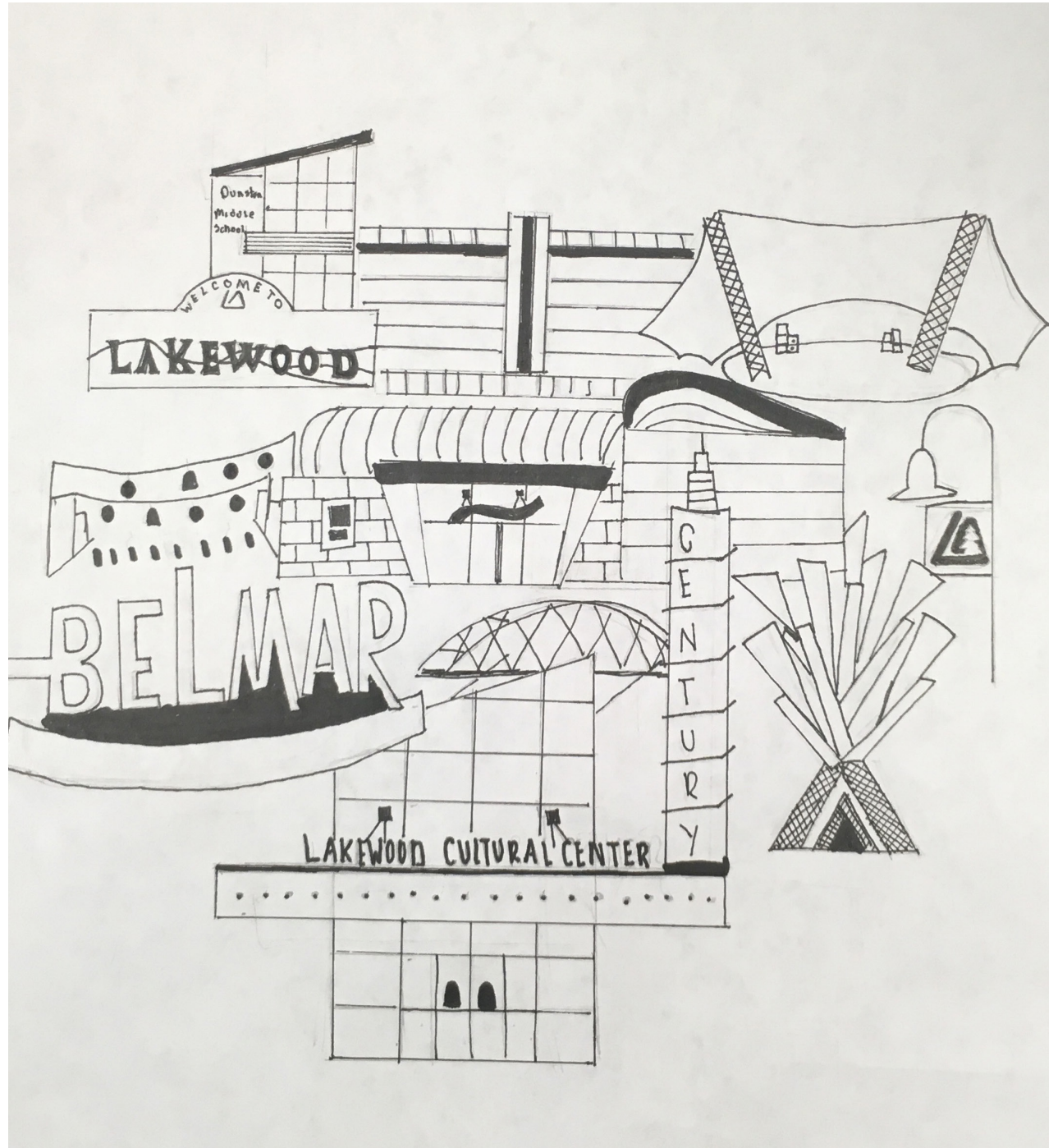


ILLUSTRATION BY: SIERRA LONGLEY

SUSTAINABLE ECONOMY

GOALS:

- * Cultivate a sustainable, prosperous, and self-reliant local economy.
- * Foster self-sufficiency and upward mobility of Lakewood Households.

INTRODUCTION

WE HOPE THE PEOPLE OF LAKEWOOD CAN HAVE A COOPERATIVE FUTURE WHERE LOCAL BUSINESSES SAVE RESOURCES, GIVE HIGH-QUALITY JOBS TO OUR CITY, AND PROVIDE LOCAL GOODS AND SERVICES. OUR GOALS ARE TO IMPROVE OUR LOCAL GROUPS, GOVERNMENT, BUSINESSES, EDUCATIONAL OPPORTUNITIES, JOB TRAINING, AND THE COST OF LIVING IN LAKEWOOD.

SUSTAINABLE ECONOMIES

In Lakewood, our goal is to create a sustainable economy where the community has a strong relationship with local businesses, has good jobs, and provides many different opportunities while also helping new businesses be successful and help them gain customers. This goal will lead to a more sustainable economy and community by creating diversity in the economy and to bring in lots of different businesses. We can help the economy grow by connecting businesses and making partnerships. We think this will improve household wellbeing, create more jobs, and help people with their career development.

We think that businesses in the community should be showing leadership in sustainability, like making better choices about how much energy they use. Businesses are big users of our resources. Commercial energy by itself was responsible for 25 percent of Lakewood's greenhouse gas emissions in 2015! But a change is starting to happen. Some companies have agreed to be responsible for what they are doing to the environment. They are recognizing that climate change is happening and that resources are becoming scarce. We think that businesses should continue thinking ahead and taking a resourceful approach.



FIELD TRIP TO WARREN TECH FARM: LEARNING ABOUT LOCAL FOOD AND ORGANIC FARMING



PHOTO BY: AVA BISSENETTE-SMITH



WARREN TECH FARM

LIVING LOCAL

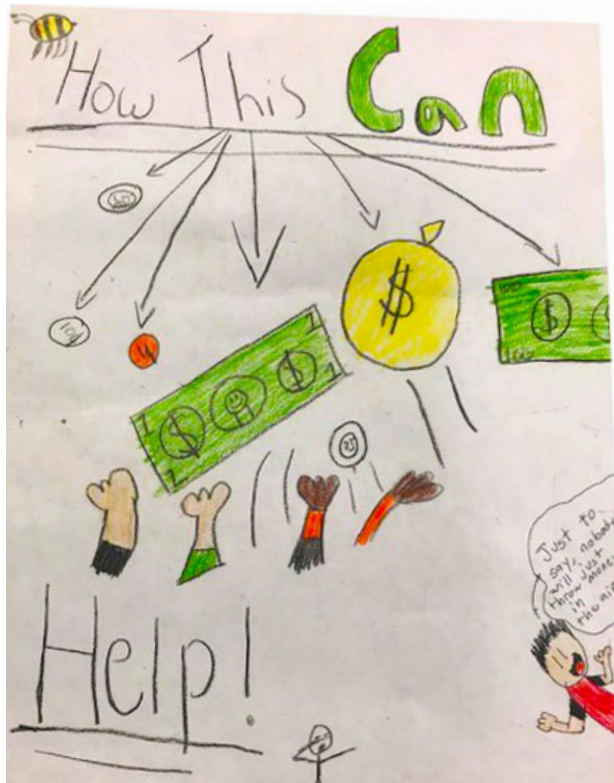
Living locally has become important for a lot of cities, including Lakewood. Living locally means shopping at more local businesses, instead of large multi-billion dollar companies. By going to local businesses and shops it helps balance the economy because it helps those places stay in business, and not all of the profits go to chain stores.

**"THOSE WHO SHOP LOCAL ARE GIVING A VOTE
WITH THEIR MONEY THAT SHOWS THEIR VALUES
AS A PERSON AND A COMMUNITY."**

Living local involves everyone, like local businesses that produce goods and services and people who buy and share with their families and neighbors. As people involved in local activities increases, so does awareness and responsibility. People see the effect of their business decisions they make on the natural environment and relationships with other community members.

Local food in Lakewood is a trend that is becoming more and more popular. But local food doesn't just mean going to a local breakfast house or local store, it also includes food that is grown locally that you buy at community gardens, food trucks, and farmers

markets. With the connection to health, nature, and culture, local food has become one of the most popular ways to begin living locally. Food systems include many parts of food production like harvesting, processing, packing, transportation, and sales. When people make the choice to eat locally, sometimes they begin to think about other food qualities, including freshness, nutritional value and how companies produce the food. Many people choose to take part in community gardens in order to have local and trusted food sources. All of these ideas work together to help people access healthy foods and to support a sustainable economy.



ECONOMIC SELF-SUFFICIENCY

People in Lakewood need a reliable income to be able to meet their needs. They also need access to a good education, professional growth, and skills to help them manage their money. A sustainable economy can be completed from the help of kids, by teaching them to save their money and not spend it all, ultimately starting them off on the path of life and getting them ready for the economy when they grow up. Young people are already helping in a way by going to school to increase their education level, which will help them get a better job when they enter the working force.

Most of our typical household money is being spent on food,



ILLUSTRATIONS BY: JAMES NGUYEN

transportation, shelter, and health care, and we don't have much extra money to save. This shows us that kids and parents aren't getting what they need. Say a family needs more shampoo or soap but their money is slowly going down the drain because they are just trying to pay bills and can't afford other things that would be useful for their whole family. One way that the City can help the people in Lakewood is by providing easy access to goods and services, and low-cost housing and transportation options. This can help families become more self-sufficient.

WALKABLE NEIGHBORHOODS

A recent trend is that people want to live in more walkable and connected neighborhoods. A 2017 survey by the National

WHAT KIDS CAN DO TO...

HELP CREATE A SUSTAINABLE ECONOMY:

- Eat produce when it is in season because it will help the community not waste food.
- Learn about a sustainable economy and teach others about it!
- Go to farmer's markets or local farms with your parents on the weekends.
- Shop at local and small businesses, not chain restaurants and supermarkets.
- The school can have a farmer's market field trip, or have a fundraiser to help parks and other community needs.
- Give your old toys to poor kids or other younger kids, so the amount of toys being thrown out decreases.
- Teach your friends how to save their money, to help put them on the path of life and get them ready for the economy when they grow up.
- Have a garden at your house or become a part of a community garden to get fresh and local food.

Association of Realtors showed that 80% of respondents said that being within an easy walk of places in a community like shops and parks is important. Transportation costs drop when shops and services are accessible by walking or riding a bicycle. When people walk through their streets daily and take their children to play at a local park, they feel more connected to the natural environment. Communities around the world are trying to make neighborhoods more walkable, and this is another one of Lakewood's goals to make our economy more sustainable.

ZERO WASTE

GOALS:

- * Create a culture of zero waste in Lakewood through education, municipal operations, infrastructure, and services
- * Foster sustainable household waste management
- * Foster sustainable commercial waste management

RECYCLABLES

INTRODUCTION

THE CITY OF LAKEWOOD AND ITS RESIDENTS HAVE A RESPONSIBILITY TO MINIMIZE THE HARMFUL IMPACTS OF WASTE IN ORDER TO FOSTER A VIBRANT AND SUSTAINABLE COMMUNITY. LAKEWOOD'S GOAL IS TO BECOME A ZERO WASTE COMMUNITY BY REDUCING, REUSING, AND RECYCLING MATERIALS. THROUGH THIS PROCESS JOBS ARE CREATED, BUSINESS NETWORKS GROW, AND RESOURCES ARE CONSERVED.

WE HOPE THAT AFTER YOU FINISH THIS CHAPTER YOU HAVE A BETTER UNDERSTANDING OF HOW YOU CAN MAKE A POSITIVE IMPACT ON LAKEWOOD AND THE ENVIRONMENT. BE SURE TO CHECK OUT OUR LIST OF ACTIONS YOU CAN TAKE TO HELP REDUCE YOUR WASTE – THESE ARE AT THE END OF THE CHAPTER!

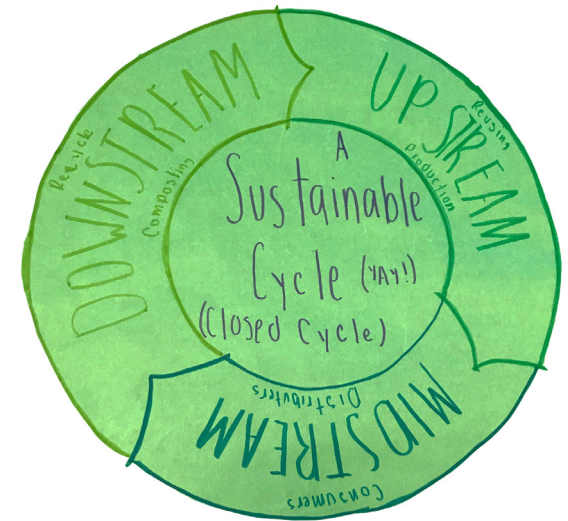
Communities are changing. They are starting to recognize the consequences of climate change and they are reducing the number of natural resources they use. One natural resources that we all use of lot of is our land. When we send waste to the landfill, we use valuable space that could be used for parks, housing or other important things. Zero waste means reducing the amount of waste we create by finding other uses for it, or by not making it in the first place! By going zero waste, we can conserve our land and use it for more beneficial things, and prevent pollution.

WASTE DIVERSION IN LAKEWOOD

The amount of waste that we are able to keep out of the landfill is called our diversion rate. The average diversion rate in America is 35 percent. However, Colorado's diversion rate is 12 percent meaning we recycle and compost less than the average state. This can get better and it will take all of us working together to increase our diversion rate!

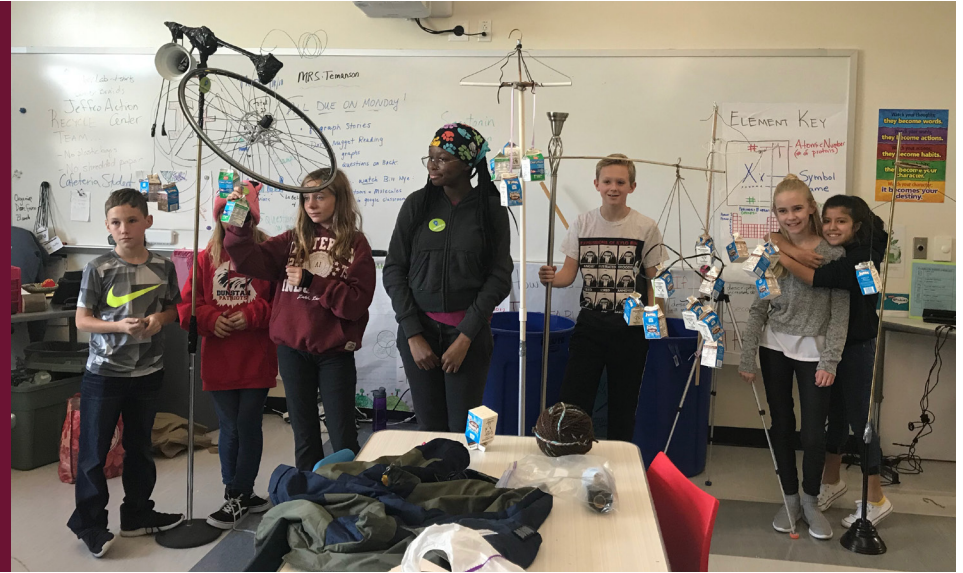
THE WASTE CYCLE

The flow of materials and products in a city is commonly a one-way track to a landfill. Natural materials are taken from the earth, then made into goods that go to cities, get consumed, and eventually end up in a landfill. What many people don't realize is that for every pound of waste a person sends to the landfill, 87 pounds of waste were made in the process to manufacture that one pound of product. Even before products get to our homes, a lot of waste has been made and we've used resources that can't be replaced. To make our waste cycle more sustainable, we need to think about where the products we buy come from as well as where they go when we are done with them.



SUSTAINABLE NEIGHBORHOODS + SCHOOLS: ZERO WASTE PARTNERSHIP

Volunteers from the Green Mountain Sustainable Neighborhood have introduced recycling into the lunch rooms of schools in the Green Mountain area. These residents built partnerships with faculty, staff, students and waste haulers with the goal of increasing awareness of and access to recycling in schools. Students at Dunstan Middle School built mobiles out of recycled materials that, when paired with a blue recycling bin, help students understand what can be recycled. This project is a great example of how a group of residents can make a big difference in their community!



THE GOAL OF ZERO WASTE CREATES PARTNERSHIPS BETWEEN RESIDENTS, BUSINESSES, AND THE GOVERNMENT. WITH THESE PARTNERSHIPS, WE CAN LOWER THE WASTE IN LAKEWOOD AND LOWER THE CREATION OF THE WASTE! LOWERING THE AMOUNT OF WASTE HAS OTHER BENEFITS TOO. IT CAN MAKE VALUE THROUGH JOB CREATION.

RESOURCE RECOVERY

Resource recovery is very important. The two most common forms of resource recovery are recycling and composting. Both of these options keep resources from being removed from the ground and waste from piling up in the landfill. Did you know that waste sitting in the landfill produces greenhouse gas emissions? Waste we throw away in landfills produces a very bad greenhouse gas, 72 times worse than carbon dioxide, called methane. This is why we should compost and recycle as much as possible. Going zero waste and recovering resources improves public health, reduces environmental impacts and adds value to where we live and our natural systems.

Recycling and composting both rely on having the proper materials and markets to support creating a zero waste system. Making sure the proper buildings are available for these activities locally reduces driving and truck costs for waste haulers and creates jobs in the local city. Resource recovery is also guided by the how a product is made. By choosing items that can be recycled or composted, we are creating the inputs for new products made from recovered materials.

THE SHARING ECONOMY

As our needs change and we no longer find our products useful, there are several alternatives to disposal other than recycling and composting. The growing sharing economy encourages

people to share resources, reduce waste, save money, and build relationships. These exchange networks can take many forms and happen in many places, including online neighborhood forums, garage sales, thrift stores, and donation sites. If there still is no demand for a product, there might be an opportunity for repurposing. Artists, entrepreneurs and thrifty households have demonstrated that tires can be turned into chairs, wooden pallets into playgrounds, and leather airline seats into travel bags. Product reuse processes, such as repairs can create between 25 to 300 more jobs than landfilling and incineration. Sharing and repurposing are midstream waste solutions with benefits far beyond our waste diversion goals.

WHAT IS COMPOSTING?

Composting is a really cool way to reduce waste, so we want to take some time to share about it! The real definition of compost is "decayed organic material used as a plant fertilizer," but a simpler definition is when you add natural materials like table scraps to a leaf and newspaper base, it can be turned back into soil that can then grow more food!

There are three different types of composting, they are Vermicomposting, aerobic and anaerobic. Vermicomposting uses worms, oxygen, and moisture to safely break down organic material with few odors. Basically, worms do most of the heavy lifting, and bacteria also helps. Did you know that compost can be made from almost any organic material?

Compost is a mixture of leaves, newspaper, table scraps, and worms. Leaves help compost by giving it the ability to retain water. Newspaper adds carbon, and carbon is helpful for the plants because they need it to chemically grow. Table scraps are useful in compost because they add a boost of vital nutrients. The worms are in the mix to help the breaking down process. The compost needs to be turned every once and a while so that air can be introduced to help break down materials quickly.

Compost is full of nutrition and nitrogen, which is needed for plants and flowers to be healthy. How does this help Lakewood's plan for zero waste? Good question. Instead of throwing away things like vegetables, fruit peels, and organic things (paper, cardboard, etc.), we can use them for composting. Pretty neat, isn't it?



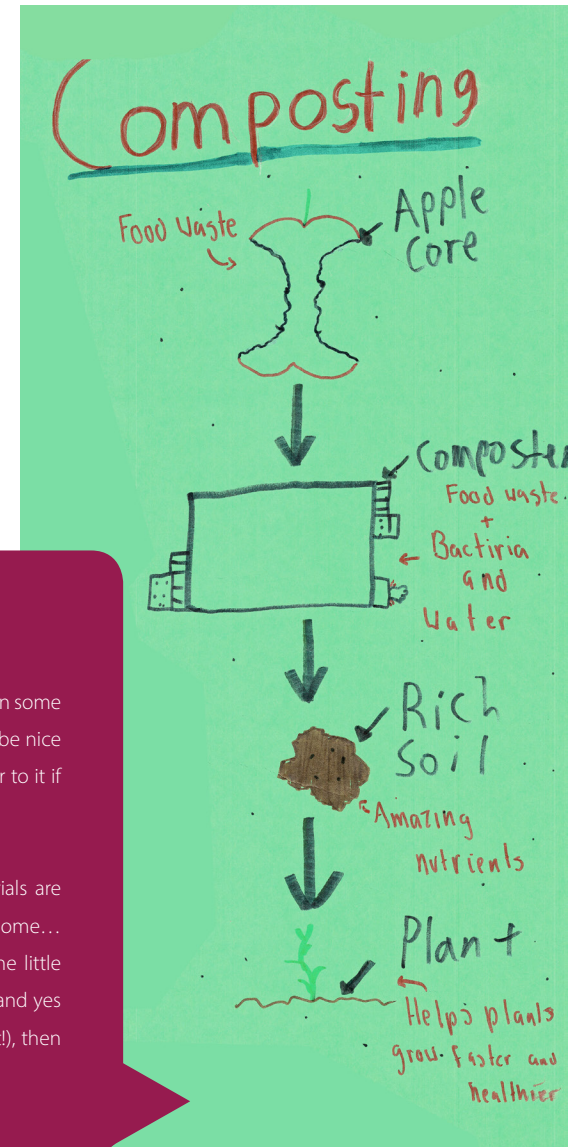
PHOTO BY: SIERRA LONGLEY

BELMAR'S FESTIVAL ITALIANO WAS A
ZERO WASTE EVENT IN 2018

HOW YOU CAN COMPOST AT HOME

Gather some leftover vegetables, a few fruit peels, and some paper. Next, put in some soil, bury everything up, and wait for about 2-3 weeks, by then, the soil will be nice and healthy for your plants. (Note: Make sure the soil is moist, just add water to it if it gets dry)

Vermicomposting: This is a bit harder way to compost because the materials are harder to find. Gather the same things you used for normal composting and some... worms. Ew! But the worms are really important. The worms are helping the little organisms eat the organic things and turn it into the soil. Bury everything, and yes the worms. Wait for 2 weeks (make sure that you are keeping the soil moist!), then the soil should be good to go.



"TO MAKE OUR WASTE CYCLE MORE SUSTAINABLE, WE NEED TO THINK ABOUT WHERE THE PRODUCTS WE BUY COME FROM AS WELL AS WHERE THEY GO WHEN WE ARE DONE WITH THEM."



ILLUSTRATION BY: RYLEY SALAZAR

WHAT KIDS CAN DO TO...

GO ZERO WASTE:

- You can help by not just by recycling, composting and creating minimal amounts of trash, but also by educating everyone around them about how to make our community a waste-free city.
- Spread the word! Post things on social media so that people from all around you and your city or even state can conquer waste. When people see these posts they will join the action as a whole community working together to make our city waste zero.
- Say no to straws! When you go to restaurants, most places give you straws for drinks. Bring reusable straws or tell the restaurant you don't want one.
- Pack a zero waste lunch! Use reusable plastic containers instead of plastic bags for lunch or for leftovers. Bring a water bottle instead of a plastic bottle, and take cold lunch instead of using a styrofoam plate. Say NO to styrofoam.
- Ask teachers for more online assignments and fewer paper assignments.
- Use less plastic bags and get a reusable bag you can use when you go shopping.
- Start a recycling club at where you go to school like at Dunstan Middle School.
- Go to a zero waste workshop in your neighborhood, church, or plan one at your school.
- Participate in community composts if you don't have the ability to do one yourself.
- Don't get any extra plastic objects like toys and advertising products at events and restaurants.

COMMUNITY COHESION AND PUBLIC HEALTH

GOALS:

- * Strengthen community cohesion, increase civic participation, and celebrate diversity
- * Promote physical well-being through healthy eating and active living
- * Promote social equity and provide strong supportive services

PHOTO BY: SIERRA LONGLEY

INTRODUCTION

AS RESIDENTS OF LAKEWOOD WE RECOGNIZE THAT HEALTH, WELL-BEING AND SOCIAL CONNECTEDNESS ARE IMPORTANT PARTS OF A STRONG COMMUNITY. LAKEWOOD SUPPORTS A FUTURE WHERE RESIDENTS ARE HEALTHY, COMMUNICATE WITH OTHERS, AND ARE SUPPORTED BY A CLEAN ENVIRONMENT.

WHAT IS COMMUNITY COHESION?

Community cohesion occurs when residents are happy and feel connected to one another. Cohesion is important in communities like Lakewood no matter peoples ages, races, and genders. Cohesion is needed because without it, people will not feel welcomed or like a valued member of their community. A cohesive community is much more likely to reach goals they set for themselves, like improving recycling or reducing traffic, because they work together to find the best solution for everyone. One of the most important things to help achieve goals is a sense of belonging, where all residents feel comfortable to speak their mind.

Community Cohesion & Public Health



- Did you know?
Green-mountain won a sustainable neighborhood award for it's green efforts.

Some of these include:

- Working with schools to reduce lunch waste
- Forming community gardens with composts
- Organizing workshops / classes

Celebrate DIVERSITY

Helping all of our community members meet their individual needs.

Links:
Want find out more about our neighborhood?
Go to this site and find "Green Mountain"
WWW.sustainableneighborhoodnetwork.org

Get involved in Lakewood Sustainability:
Go to: lakewood.org/scoop/

Promote PHYSICAL WELL-BEING

- Get outside and take a walk
- Take a bike ride or take a hike



EQUALITY vs. EQUITY

Equality is: Treating everything and everyone the same way and giving them the same opportunities.

Equity is: Helping others in our local community.

Helping people based on their individual needs.

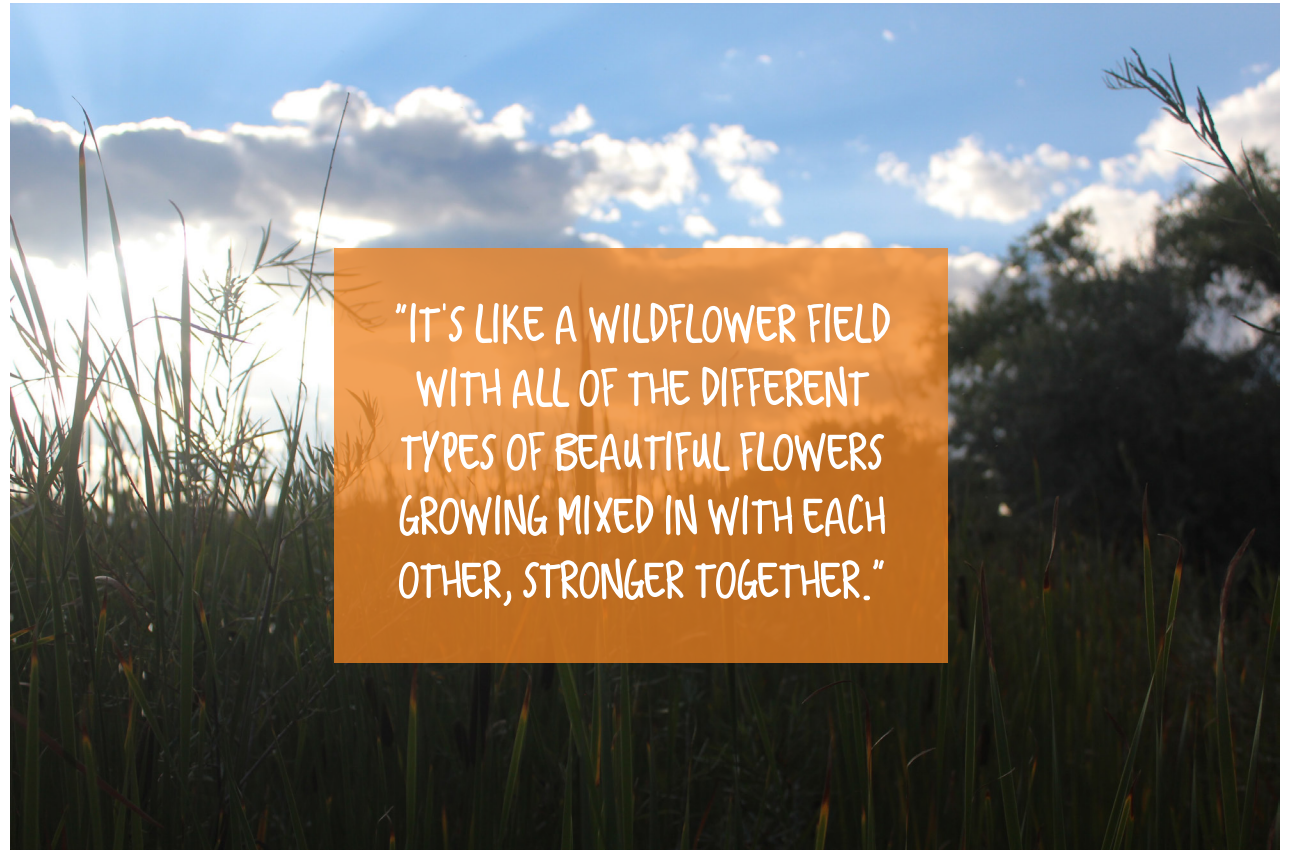
CREATING AN INCLUSIVE COMMUNITY

When people feel like they are equal to those around them, when they are proud of where they live, and when they are happy where they live, they get more done in their lives and report being more satisfied with life. People are able to get through difficult times better when they feel they are a part of a group where they belong and where they are respected and equal.

You may think that being in a group of very different people than yourself might make you feel alone or that you are different but the opposite is true. The more varied the group of people whether it's color of skin, nationality, language, gender, religion, food, music, or whatever, the better. This lets everyone meet and experience different people opening your mind while also seeing how we all share the same basic human needs. All of this helps a community or town become closer, stay together and grow together. It is like a wildflower field with all of the different types of beautiful flowers growing mixed in with each other, stronger together.

CIVIC PARTICIPATION

People interacting together and relating to each other has a lot of positive effects for everyone. It helps us to have cleaner and safer cities and towns. It allows for groups of people to come together to stick up for or fight for those who may not be able to fight for themselves on some issues. People also need to be able to go to a place to learn information from professionals who can give them that information like doctors, schools, etc. All of this comes together to result in the happiness of people living in Lakewood.



"IT'S LIKE A WILDFLOWER FIELD
WITH ALL OF THE DIFFERENT
TYPES OF BEAUTIFUL FLOWERS
GROWING MIXED IN WITH EACH
OTHER, STRONGER TOGETHER."

PHOTO BY: SIERRA LONGLEY

PUBLIC HEALTH

You need four basic things to live a happy life - clean air, clean water, food, a good social life. Every organism needs cohesion and public health. Working at the community level to promote healthy living brings the greatest health benefits to the greatest number of people. It also helps to reduce health gaps caused by differences in income, education, race and ethnicity, location and other factors that can affect health.

Public health is needed because if a community is unhealthy, we

cannot make the community better. In Lakewood, if everybody was sick, then we would not be able to achieve our sustainability goals. The healthier and more involved the community is the better the state of Lakewood. People will be happier and more productive.

"NO MATTER IF YOUR COMMUNITY IS A THOUSAND MILES AWAY FROM LAKEWOOD, YOU ARE THE FUTURE OF YOUR COMMUNITY."



PHOTOS BY: ADDISON BAIR

WHAT KIDS CAN DO TO...

INCREASE COHESION AND PUBLIC HEALTH:

- Eat healthier foods.
- Go outside more.
- Be active throughout the day.
- Go with your parents to city meetings.
- Make friends by talking to neighbors.
- Socialize with officials within their schools and making sure that their friends are happy.
- Start clubs like recycling or helping the homeless. By doing so it helps community cohesion because people are coming together for a bigger and better cause.
- Reduce emissions because that helps get cleaner air which brings down the risk of illness.
- Be kind to everybody in your classroom, at recess and lunch, and on public playgrounds.
- Involve everybody from all backgrounds at your school and in public.
- Starting or participating in public gardens or in community projects.
- Donate to hospitals and charity purposes.
- Help cook and provide food for the people who don't have a lot of food.
- Talk to schools about how they should require certain electives like gym for kids health.
- Participate in more extracurricular activities.
- Go to the Lakewood meetings to give feedback.

NATURAL SYSTEMS

GOALS:

- * Mitigate the negative effects of the built environment and human behavior on Lakewood's natural systems to ensure biodiversity and enhance ecosystems
- * Enhance Lakewood's resilience to the impacts of climate change using green infrastructure and ecosystem-based adaptation

PHOTO BY: ADDISON BAIR

INTRODUCTION

LAKEWOOD WANTS A FUTURE WHERE WE HAVE A HEALTHY NATURAL ENVIRONMENT OUR OBJECTIVE IS TO PROTECT AND RESTORE HEALTH THROUGHOUT LAKEWOOD'S NATURE AND BUILT ENVIRONMENTS. WE ARE TRYING TO CREATE A WORLD THAT IS CLEAN AND ENVIRONMENTALLY HEALTHY FOR EVERYBODY. WE WANT TO CREATE A HABITAT PROTECTION PROGRAM FOR THE WILDLIFE. WE ARE ALSO TRYING TO PROTECT OUR EXISTING WETLAND AREAS AND OTHER NONWILDLIFE AREAS FOR FUTURE WILDLIFE TO COME.

ECOSYSTEM SERVICES & BIODIVERSITY

Natural ecosystems perform fundamental life-support services that we all depend on. For example, our natural environment provides us with essential things like food, water, and medicine. Ecosystems also make the world easier to live in for people, by doing things like filtering our water and air. This improves air, water and soil quality. These services provide support to our community's environmental, economic, and public health.

The City of Lakewood and its residents recognize the importance of a healthy ecosystem and biodiversity. When we lose a gene or species, we lose it forever. Sustainable communities consider all species and how human actions (like changing the environment) might affect them. For example, if we plan to build a neighborhood on a field, it will affect the bees because they will not be able to pollinate, and will kill off their species. If the bees

are killed off, it will affect us because bees help provide pollination for one-third of the human food supply. By including pollinator-friendly plants and features for wildlife can help balance our impacts on the natural environment.

Another example of a neighborhood challenge is the use of chemicals to help grow things in our yard and to keep away bugs. However, the use of chemicals can cause significant damage to the environment, including animals and humans. By reducing the number of chemicals used, we can maintain a sustainable ecosystem. It also helps to increase awareness about how to manage land responsibly, so we can keep our health and animals' health safe. With the fast growth of cities and neighborhoods, the loss of species is steadily growing. In order to restore some lost species, we need to protect and restore habitats.

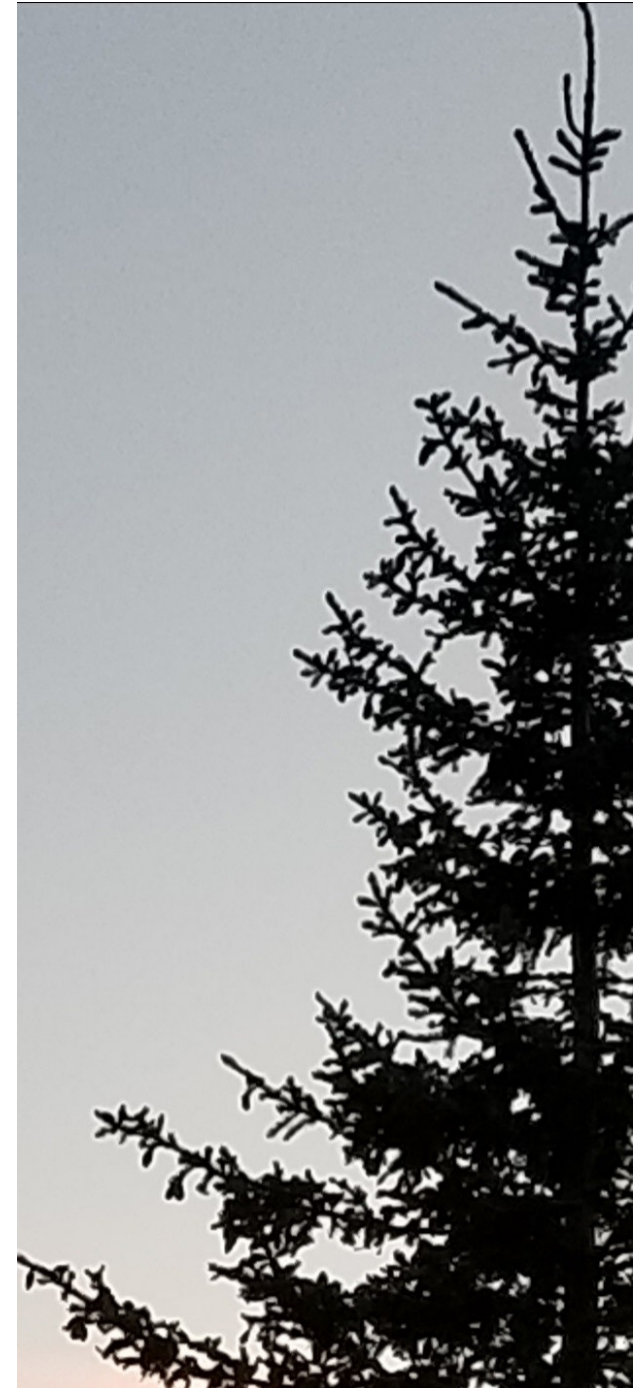


PHOTO BY: ADDISON BAIR



PHOTO BY: SIERRA LONGLEY



ILLUSTRATION BY: MITCHELL ORTIZ

GREEN INFRASTRUCTURE

Lakewood is trying to support natural systems throughout the city. For example, by coming up with ideas like green roofs for houses and businesses so extra water doesn't get wasted or go down the drain. Having a garden is good for many reasons: it produces oxygen for animals and humans; it provides food for the community; it reduces pollution by cars because you don't have to drive to the store for food; it can also recycle water from storms to water the plants. Another option is to plant a rain garden, which is an arrangement of bushes and flowers that is placed downhill so it naturally catches stormwater. It is especially helpful to the community because it collects the runoff from storms, and naturally filters the water, which saves

the community money for filtration systems. This enhances the water quality and protects human, plant, and animal health.

PROTECTING OPEN SPACE

Lakewood has thousands of acres of open space and natural areas. We need to preserve open space in Lakewood so we can continue to protect ecosystems and provide spaces for recreational programs for thousands of users for years to come. Many different kinds of habitats can be found in Lakewood, including riverside, wetland, grassland, and shrub. The most common habitat in Lakewood is the grassland, where there

are prairies full of plants. This prairie ecosystem serves many wildlife species including birds, rattlesnakes, rabbits, coyotes, elk, and deer. These areas also include creeks, springs, ponds, and reservoirs which provide a water supply for Lakewood and its residents. Many of these habitat areas have been affected or changed over the years, from agriculture or mining, and this has disturbed many species and has caused some to go extinct. Lakewood has helped restore lots of this lost land and has tried to provide the best living conditions for species.

"WE NEED TO PRESERVE OPEN SPACE IN LAKEWOOD SO WE CAN CONTINUE TO PROTECT ECOSYSTEMS AND PROVIDE SPACES FOR RECREATIONAL PROGRAMS FOR THOUSANDS OF USERS FOR YEARS TO COME."



WHAT KIDS CAN DO TO...

PROTECT NATURAL SYSTEMS

- Don't throw junk and garbage into rivers or canals, or plastic onto the ground.
- Make more parts of your yard at home pervious instead of impervious.
- Clean up litter from nature reserves.
- Just look at wild life, even the flowers, and not try and interfere with them.
- Organize a community clean up.
- Use computers instead of paper.
- Take a look at the kinds of plants and animals we have growing and living in our area. Everyone should educate themselves on the natural environments near them.
- Don't destroy animal homes like piles of sticks that are beaver dams.
- Talk with your local community to start green infrastructure.
- Help create or restore habitats for endangered wildlife.
- Help your community understand where the water that runs down the street goes.
- Set up a rain barrel so that you can use that water for things in everyday life.
- Go to a gardening workshop, like the one held by Green Mountain Sustainable Neighborhood
- Take part in a workshop about chickens.
- Learn about how to recycle or dispose of toxic chemicals, and where.

TRANSPORTATION

GOALS:

- * Develop, maintain, and operate sustainable transportation systems and infrastructure
- * Foster sustainable transportation choices in Lakewood



INTRODUCTION

TRANSPORTATION IS VERY IMPORTANT IN LAKEWOOD. 19% OF LAKEWOOD'S EMISSIONS COME FROM GASOLINE VEHICLES SO IF WE CAN REDUCE THE NUMBER OF GASOLINE VEHICLES DRIVING IN LAKEWOOD, WE CAN REDUCE A LOT OF EMISSIONS. WE CAN HELP REDUCE GASOLINE VEHICLES ON THE ROAD BY BIKING, CARPOOLING, AND TAKING PUBLIC TRANSPORTATION; EACH OF THESE IDEAS IS DISCUSSED BELOW.

BIKING

Several groups in Lakewood have been working very hard on making sure bicyclists can safely move around our city. We can look at a city like Copenhagen, Denmark as a model of a bike-friendly city. In Copenhagen, about 65% of people travel by biking. Biking is so important there that they have traffic lights for bikes like we have for cars. The reason so many people bike there is that most of the roads there are built for bikes not cars. Citizens travel by bike, not because they want to help the environment, but because that's how they learned to travel; that's how they grew up traveling.

"BIKES ARE FUN AND FRIENDLY TO THE ENVIRONMENT. THEY ARE ALSO GREAT EXERCISE AND AN AMAZING WAY OF TRANSPORTATION"



CARPOOLING

A lot of adults that commute to work do not consider how they can carpool with others. There is an almost endless list of positives to carpooling. First, you are preventing traffic on the roads. If 4 people carpool together that is one car on the road instead of 4 which, when you think about it, is a giant impact. Because if we can get say, 100 people to carpool, that is potentially 200-400 fewer cars on the roads. Another positive of carpooling is that you get to know the people that you carpool with better. You can come up with games to play in the car or other things that can make your drive to work so much more enjoyable. Also, the impact you have on the environment is reduced immensely if you carpool. It's simple, if you are only putting out the emissions of one car instead of even two, you are reducing the greenhouse gases released into the atmosphere, which reduces climate change.

Kids can also take part in carpooling. They can carpool with kids around their neighborhoods to school and other events. They can do this by first asking their parents if they can carpool with other kids. After that, they can ask around to find out all their friends that live close to them. Last, they can coordinate a carpool schedule with their parents.

PUBLIC TRANSPORTATION

Public transportation is a very sustainable way to travel. Whether it be a bus, train, or light rail, all of these options are very sustainable. Lakewood has a light rail and public buses; the problem is that many people either don't know we have these things or don't know how to properly use these options of transportation. We need to make ways of better-informing

people on how to use systems of public transportation. We can do this by putting info on the City of Lakewood website, or other places that people might look at often, or helping each other figure out the best public transportation options for our daily trips. It is vital we do this because it will help a lot more people ride public transportation. The more people we can get to ride public transportation, the fewer cars people will see on the road. It's a win-win, traffic is reduced and we are helping reduce emissions.

To conclude, transportation is a very important part of Lakewood's sustainability, let's use these public transportation options more and let others know about how you can use these kinds of things. We can as a community work to make our city very easy to travel around efficiently.



STUDENTS TAKE THE BUS TO THEIR FIELD TRIP AT CARMODY RECREATION CENTER

"A POSITIVE OF CARPOOLING IS THAT YOU GET TO KNOW THE PEOPLE THAT YOU CARPOOL WITH BETTER. YOU CAN COME UP WITH GAMES TO PLAY IN THE CAR OR OTHER THINGS THAT CAN MAKE YOUR DRIVE TO WORK SO MUCH MORE ENJOYABLE, AND THE IMPACT YOU HAVE ON THE ENVIRONMENT IS REDUCED IMMENSELY IF YOU CARPOOL."



ILLUSTRATION BY: VINCENT HOFFMAN

WHAT KIDS CAN DO TO...

PROMOTE SUSTAINABLE TRANSPORTATION

- Tell your parents that you don't need a ride to school and that you can simply walk or bike. This also increases your health because you are getting exercise and spending time outside.
- You can also ride a scooter or a skateboard. And you can encourage your parents to do the same!
- Carpool with friends to reduce the amount of greenhouse gases being put out into the air. If you think about it, say there are 10 people driving to football practice. It will use much less gas if you take one or two cars than if everyone drove separately.
- Consider taking public transportation, like buses or the light rail to reduce the emissions and more and more people can be on one bus.
- Get your parents to not run the car or leave it idling when they pick you up for school.
- Participate in a bike safety, bike maintenance, or bike riding clinic in your neighborhood.

THANK YOU!



THE 6TH, 7TH, AND 8TH GRADE STUDENTS FROM DUNSTAN MIDDLE SCHOOL'S
SUSTAINABILITY ELECTIVE, FALL 2018

WANT TO GET INVOLVED?

To learn more about kids' sustainability efforts in Lakewood
or to get involved, visit:

www.Lakewood.org/KidsPlan

or email:

sustainability@lakewood.org



Lakewood
Sustainability