WHAT A WASTE!

A TEEN ACTION PROGRAM OF GENERATION EARTH

GENERATION EARTH

WHO WE ARE

GENERATION EARTH was created for the Los Angeles County Department of Public Works by TreePeople to take advantage of two compelling concepts. First, that youth are powerful agents of change in their families and among their friends, and second, that routine choices made by individuals on a daily basis have a collective environmental impact.

The Department of Public Works believes that the rewarding experience of taking action and making a positive change will inspire youth to take responsibility for their lives and, in turn, their communities.

What a Waste! is an environmental action program designed to provide youth and group leaders the tools and information they need to not only learn about the issue of waste, but to also explore what is happening in their immediate environment, the link between technology and waste, careers in the environment, and finally, ideas for taking action.

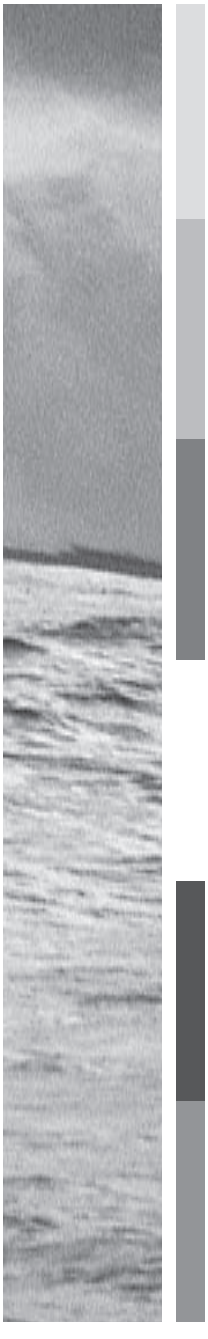
What a Waste! is one in a series of teen action guides that cover a variety of topics about environmental issues in Los Angeles County. For more information on other Teen Action Program guides, visit www.generationearth.com.

THE ISSUE OF WASTE IN LOS ANGELES COUNTY

Reducing waste is a vital issue in Los Angeles. Every day, one person makes approximately 4.5 pounds of trash. Together, the 14 million residents, businesses and manufacturers in Los Angeles County produce 50,000 tons of trash each day. Being thrown away with these massive amounts of trash are recyclable materials and other reusable resources. These resources are generally dumped into one of 13 landfills around Los Angeles County. Instead of dumping many of these items into the trash, we could be recycling and reusing them. In addition, we can reduce the amount of waste that is generated in the first place by being careful not to purchase things that have a lot of packaging, or aren't reusable or recyclable.

THE TEEN ACTION PROGRAM

As part of Generation Earth, the Teen Action Program is designed to assist youth, youth groups, and youth group leaders in providing a program that teaches about a specific environmental issue through engaging activities, moving groups to action. By registering, completing a minimum of four activities, and turning in a simple report, youth will receive a choice of a patch or "earth-tag" as recognition of their efforts, as well as a Certificate of Completion.



HOW TO USE THIS GUIDE

1 register

By registering you will have a Generation Earth staff person assigned to work with your group. Generation Earth is available as support to meet with you, help with resources, and more. **TO REGISTER, EITHER CALL 818-623-4856, OR SEND AN EMAIL TO GENERATIONEARTH@TREEPEOPLE.ORG.**

2 plan your program

Plan which activities you will complete. To earn a patch or earth-tag, you must complete at least one activity in each category. Activities are organized under the following categories:

EXPLORE THE ISSUE – these activities help teach about the issue.

TECHNOLOGY LINK – these activities link the issue to technology.

CAREER PATH – these activities explore career paths associated with the environment.

SERVICE PROJECT – these ideas are given to help you organize a project in your community relating to waste reduction.

3 use the resources

This guide provides a majority of the resources needed to complete the activities listed. Worksheets, websites, and more can be found starting on page 24.

4 complete the activities

Have fun! There is a lot to explore, learn, and do regarding waste reduction in Los Angeles County.

5 fill out the final report

At the back of this guide is the Final Report. Fill it out and either mail or FAX it to receive your patches or earth-tags and Certificates of Recognition.

6 receive your patch or earth-tag

Once we receive and process your report, we will deliver or send your recognition.

REQUIREMENTS

CONDUCT AT LEAST ONE ACTIVITY IN EACH CATEGORY

explore the issue

1. Conduct a waste survey at your home, group meeting place, or community park. Find out what is being thrown away. From the items found, determine what percentage can be recycled, what can be composted, and what is actually "trash." Determine which items were trashed the most, and create a list of alternatives. For example, using canvas bags instead of plastic shopping bags. See page 6 for a waste survey.

2. Learn what natural resources are used to create the everyday items that end up in the trash. Using the worksheet on page 8, follow the "straight line" path that one of those items takes from the natural resource it was made from to the landfill. Fill in the diagram showing the "circle" path that an item can take if recycled. Finally, create a list of items that are made with recycled products and can help close the "recycling loop."

3. Play the *Check This Out* game to learn about paper, plastic and household hazardous waste in Los Angeles. See page 10 for game details and materials.

4. How much trash do you produce in a day? In a week? Carry around, or strap to your belt, a large trash bag for an entire week. Every time you would normally throw something away, put it in the bag instead. At the end of the week, look through your bag and answer the following questions: 1) What could have been reused or recycled? and 2) How could I have reduced the amount of trash I produced by making other choices? (For example, used a mug instead of a Styrofoam cup).

5. Every year Californians generate 66 million tons of solid waste, approximately one third of which is packaging. Visit your local supermarket and conduct a survey or scavenger hunt to locate products that use recycled materials and are packaged in bulk, versus those that have too much plastic and packaging. Determine if there is a choice to purchase items that support good environmental practices. See page 9 for a supermarket scavenger hunt.

6. Find out the history of Assembly Bill (AB) 939. When was it passed, what was its focus, and what did it establish? See page 24 for legislation information.

link to technology

1. Recycling is one way to reduce waste in Los Angeles. Make a list of products that you think can be recycled. Go to www.ladpw.org/epd/recycling/how.cfm to learn where your recyclables go. Look at the "What Happens To…?" section. What items can be made from the products on your list? What products were not on your list that can be recycled? Go to the "Is It Recyclable?" link on the left for more information.

2. Reusing items is another way to reduce waste. Checking out books from a library or buying clothes from a thrift shop are some examples of reusing. Visit www.ladpw.org/epd/lacomax/ and try out the Los Angeles County Online Materials Exchange by selecting "Browse." Draw or create a sample web page for a teen version of a materials exchange.

3. Visit a recycling facility. Either check your local phone book or go to www.ladpw.org/swims/general/facilities/nearestfacilitylist.asp for a list of recycling facilities in your area. Call the phone number given to find out if they can provide a tour for your group and answer questions about how they use computers and technology as part of their work, as well as how the facility takes materials, processes them, and where they send them for reuse. These are also known as "materials recovery facilities."

4. Visit the County of Los Angeles Department of Public Works web site at www.ladpw.org/services/environment/. Find out what environmental services they are responsible for and the resources available to help your group reduce waste. Go to their Residential Recycling site at www.ladpw.org/epd/recycling/flyer.pdf and print out a flyer to post at your school or group meeting site.

5. "E-Waste" is the informal name for electronic products that can no longer be used. Computers, televisions, stereos, and telephones can all become E-waste. Many of these products can be reused, refurbished, or recycled. As of February 6, 2006, it became illegal to dispose of batteries, fluorescent lamps, and electronic devices in the trash. Either go to www.888CleanLA.com on your computer or call 888-CleanLA to find out the best way to dispose of E-waste, and where to do it in your community.

career path

1. Conduct computer research on a career related to waste reduction. Examples include: recycling coordinator; environmental engineer or specialist; solid waste specialist, manager, or supervisor. Write out the job description and if possible, the qualifications and salary range.

2. Set up a visit to the Career Center at your local college to inquire about classes and careers in the environmental field. A list of questions to ask is located on page 25. Check to see if the college will be holding an Environmental Career Fair that you can attend. Career Fairs invite companies to have a booth and talk with students about possible job opportunities.

3. Environmental and natural resources law is one of the most rapidly growing fields in the legal profession. There are a vast number of state, federal, and international laws seeking to control environmental pollution and protect resources. Research a college/university that provides a degree in environmental law. Provide information to others on where it is located and a list of the courses they provide.

4. Invite a speaker, or panel of speakers, representing careers related to waste reduction or the environment to discuss career options in this field. Resources for speakers may include family members, friends and colleagues of parents, or local businesses and agencies. Prepare a list of questions ahead of time. A list of sample questions is located on page 25.

REQUIREMENTS CONTINUED ON NEXT PAGE

REQUIREMENTS (CONT)

service project

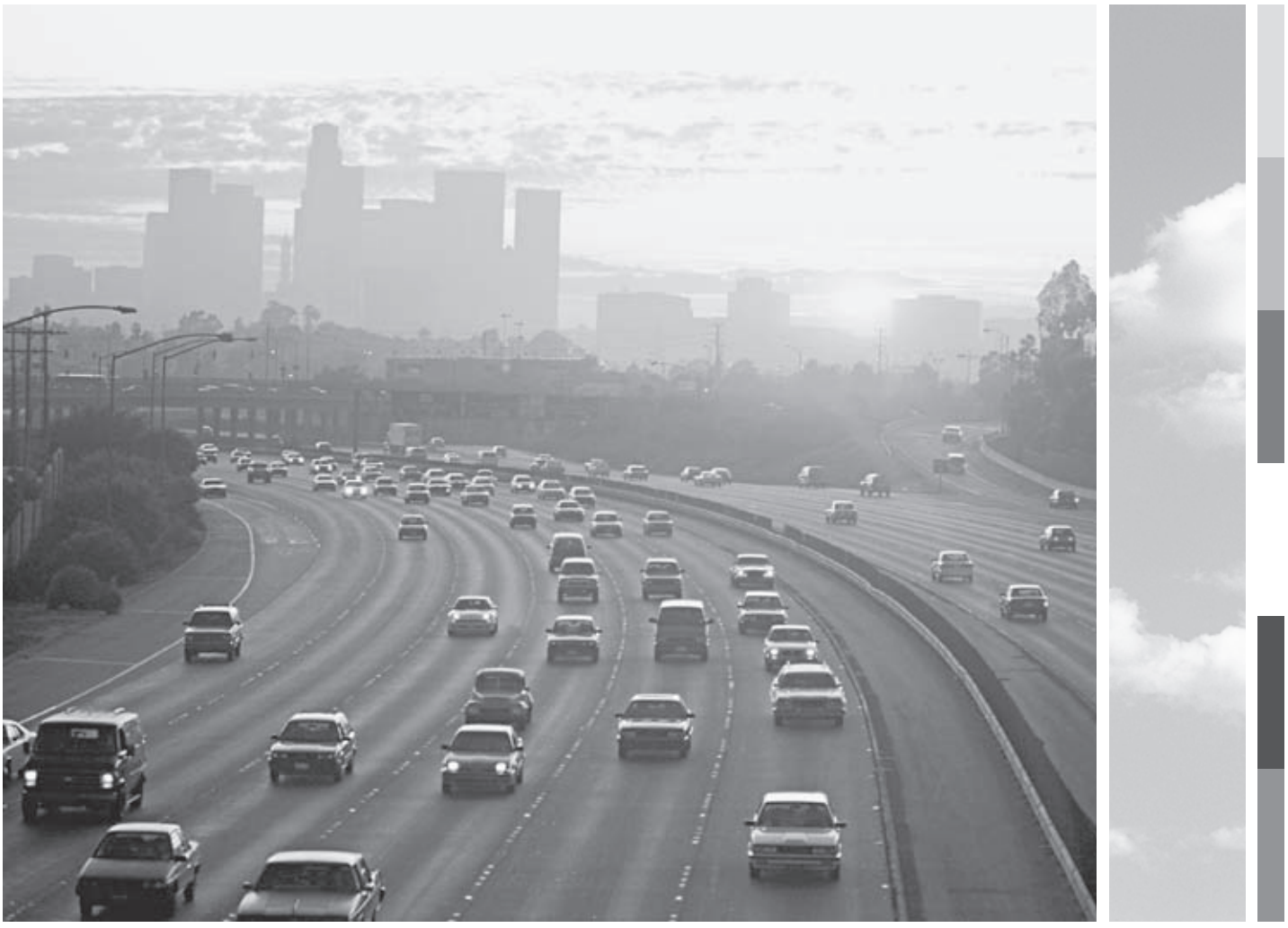
1. Create and display posters on proper E-Waste disposal at your school or community meeting place. Work with a local organization to conduct an E-Waste collection drive – including computers, cell phones, etc. Go to www.ciwmb.ca.gov/Electronics/Collection/default.asp and select Los Angeles County to find a group in your area.

2. Work with an agency, organization, or program dedicated to waste reduction. Determine how you can help and volunteer for at least one day. A list of resources is located on page 26.

3. Set up a recycling project for your school or group meeting place. Create a plan on how to keep it running. For general guidelines, see page 27.

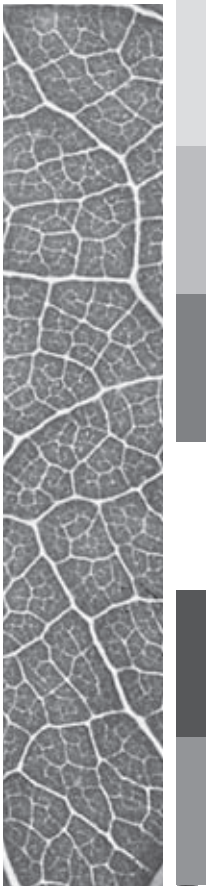
4. Teach children about the importance of waste reduction. Put on a puppet show, skit or other presentation that teaches about the need to reduce, reuse, and recycle. Figure out a way to involve your audience in the process. Invite local officials to your presentation. See page 28 for a sample idea and advice for working with younger children.

5. Come up with your own service project idea. Assess the needs of your school, group meeting place, or community to best determine what you can do to help reduce waste in the area. Create a plan and then make it happen! See page 31 for an Idea Mapping activity to help get you started.



RESOURCE MATERIAL

WASTE SURVEY



Name(s) _____ Date _____

Location _____

1) Put on gloves before checking trash cans.

2) Under the two columns labeled "trash" and "recyclables" keep a tally of how many of each item are found (i.e. "candy wrappers or chip bags" under trash, and "bottles or cans" under recyclables). Place additional items under "other."

3) After the survey is complete, answer the questions.

TRASH

ITEMS FOUND	TALLY
CANDY WRAPPERS	
FOOD PACKAGING	
STYROFOAM PRODUCTS	
FOOD	
OTHER:	

RECYCLABLES

ITEMS FOUND	TALLY
GLASS BOTTLES/JARS	
METAL/ALUMINUM CANS	
PLASTIC BOTTLES	
PAPER PRODUCTS	
OTHER:	

a) From the items found, what percentage can be recycled (recyclables ÷ total amount X 100 = %)?

b) What percentage can be composted (fruit and vegetables)?

c) What percentage is actually "trash?"

d) Which items were trashed the most?

e) Create a list of alternatives for the "highly trashed" items. For example, canvas bags instead of plastic shopping bags.

NATURAL RESOURCES

THE STRAIGHT OR CIRCULAR PATH?

We use natural resources to manufacture all the products we use – bauxite/metal ore from mountains for aluminum and metal, trees for paper, river sand for glass, and oil for plastic.

Look at the items you use every day. These are made from natural resources.

Natural resources are wasted when we use up and throw these items in the trash. They are sent to a landfill where they can never be used again. When this happens, more resources are used to create more products. This is a "linear" or "straight line" path.

Here is an example of a linear path:

TREES → NEWSPAPER → NEWSPAPER READ → THROWN IN TRASHCAN OR BLACK BIN → DUMPED IN A LANDFILL

When items are recycled, they can be used again. This keeps them from the landfill and the natural resources that are used to make them from being wasted. When this happens a "circular" path is created.

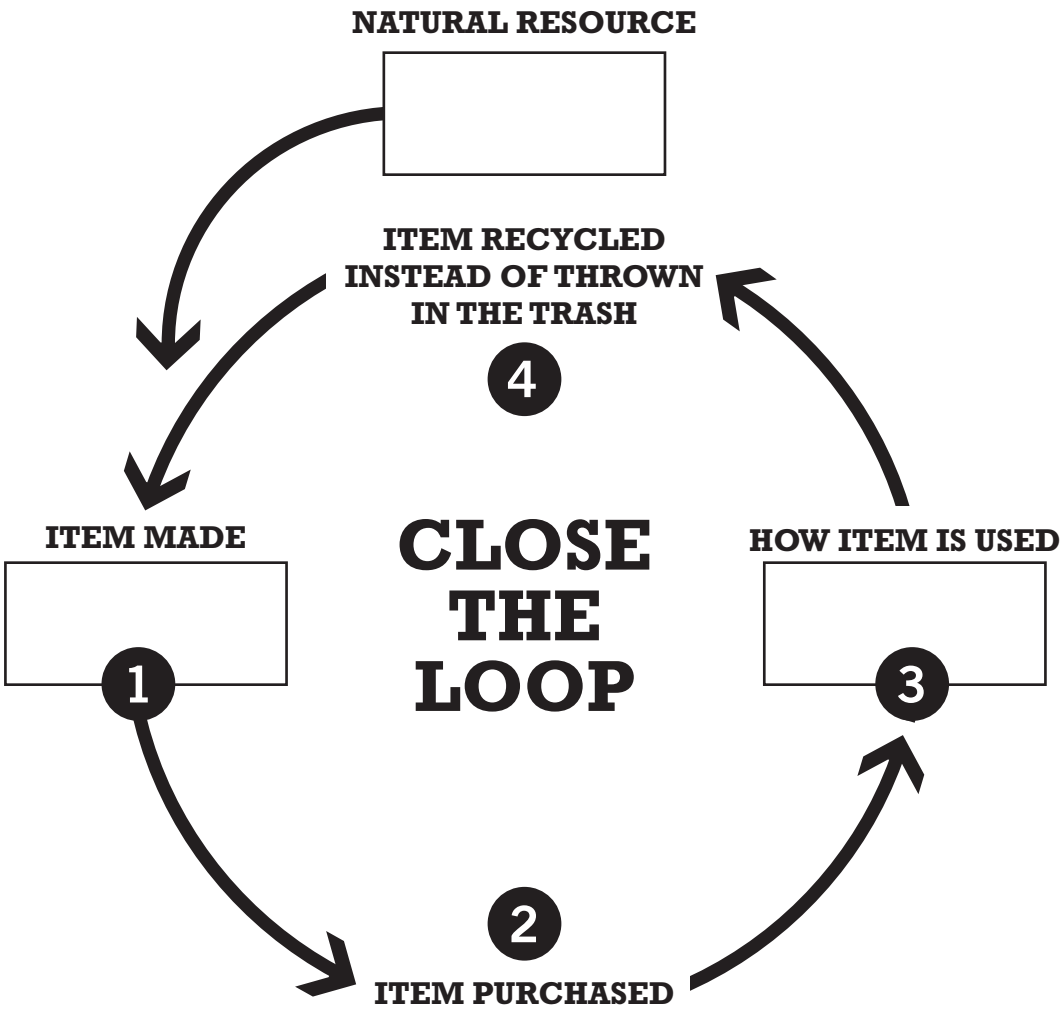
The following are natural resources and some of the items they create. Choose one of them to illustrate a "circular path."

METAL ORE / BAUXITE: soup can, soda can, pie pan

TREES: writing paper, toilet paper tube, cereal box, grocery bag, magazine

RIVER SAND: glass jar, glass bottle, drinking glass, vase

OIL: plastic juice bottle, plastic water bottle, plastic milk bottle, six pack soda ring



CLOSING THE RECYCLING LOOP

In order to close this circular path or "loop" we must make an effort to buy recycled products. By purchasing items made of or packaged in recycled materials, the loop is closed (see Step 2).

CHECK labels on boxes of cereal, cookies and crackers for a recycle symbol and wording that states it is made or partially made with recycled products. Check canned goods and food in glass containers. Check detergents and cleaning supplies in plastic containers. Some labels are small, some large. Some appear on side panels, others appear on flaps of a box or carton.

LOOK AT the products you have at home. **CREATE** a list of items that are made with recycled products, such as a recycled cardboard cereal box. For items that do not use recycled products, call the phone number listed to encourage the use of recycled products.

SUPERMARKET SCAVENGER HUNT

A PACKAGING SURVEY

Name(s) _____ Date _____

Supermarket_____

Learn about the various types of packaging used by manufacturers for the products you buy at the local supermarket. Look at a variety of products from food items to cleaning items.

FIND AND LIST THE FOLLOWING:

1. Two products that use 2 or more types of packaging (example: cereal first packaged in plastic and then in a cardboard box).

   _____

2. Two products that use only one type of packaging.

   _____

3. Two products that don't use any packaging.

   _____

4. Two products that are packaged using recycled paper (listed on the box sides or flap).

   _____

5. Two products that are packaged using plastic that can be recycled (look for recycle symbol with either 1-PETE or 2-HDPE).

   _____

6. Two products that are in packaging that cannot be recycled.

   _____

7. One product that didn't need packaging.

   _____

8. One product that is packaged in a choice of glass (easily recycled) or in plastic (harder to recycle).

   _____

9. One product that you think could use less packaging. Find the manufacturer's phone number listed on the item. Call to let them know they can use less packaging or packaging using recycled materials.

   _____

10. Find an item that has different manufacturers with different packaging. Which one could you buy that has the least amount of packaging? Which one could you avoid that has the most packaging?

    _____

    _____

CHECK THIS OUT GAME

TIME **60 MINUTES**

OVERVIEW

In working groups, participants explore one topic area related to resource use and the production of waste. Groups are then split up forming new teams, each with information about the different topic areas. These new teams answer one question and illustrate it using poster paper or board. Finally, groups present their posters.

materials

- ☐ *Topic Card* and the five related *Check This Out* cards – 1 topic per group
- ☐ Poster or dry erase boards – 1 per group
- ☐ Markers – 1 set per group

instructions

1. Divide into three working groups. Groups should be as close to equal in size as possible.

2. Each group does the following:

    a. Each group will learn and discuss a different topic of resource and waste management – paper and paper products; plastics and packaging; or household hazardous wastes.

    b. Each group will receive one *Topic Card* and the five related *Check This Out* cards.

    c. Pass out a *Check This Out* card to each member of your group.

    d. Follow the instructions on your group's *Topic Card* introducing the subject and asking questions for your group to answer.

    e. You will have 15 minutes to share the information, answer the questions and become experts on the topic.

CHECK THIS OUT CONTINUED

3. After 15 minutes, form new teams. Each new team should include one person from each of the topic groups.

4. Using poster paper or a dry erase board, each new team answers and illustrates the following question:

   Give 3 examples of how consumers create waste that ends up on the ground or in the landfill and what you can do about it.

5. After 15 minutes, each team presents their answers to the entire group.

GENERATION EARTH

TOPIC CARD: PILES OF PAPER

READ THIS AS A GROUP

1

Score! Two points! You're doing your homework and make a mistake in the first paragraph. So, you crumple the piece of paper and toss it in the trash. Did you think about the tree that the paper came from? Trees are harvested and sent to mills and processed into lumber. The wood waste is sent on to paper mills, where it is manufactured into lunch bags, notebooks, computer paper, magazines, napkins, towels, and the list goes on and on.

2

Each person reads his/her Check This Out card and takes notes (you will need them later!)

3

As a group, answer the following questions. Hint: Each team member has different information that will help.

think about it!

1. A California law required each city and county in California to divert 50% of its solid waste from landfills and waste-to-energy facilities by the year 2000 through source reduction, recycling and composting. Most cities did not meet this goal and filed for extensions. Why is this goal important to us as students? Give at least three reasons.

2. What's the difference between reducing, reusing and recycling our wastes? Of the three actions, which do you think is most important? Why?

3. How does buying supplies for taking notes in class, doing homework or even bringing lunch to school relate to paper and waste disposal issues?

4. What can we do to encourage manufacturers to reduce the number of trees cut down to make paper and paper products?

5. How can we encourage our classmates, friends, and family to help decrease the number of trees cut down to make paper and paper products?

STUDENT PAGE

GENERATION EARTH

CHECK THIS OUT

PILES OF PAPER

1

- California generates about 14 million tons of paper a year. Of this, about 31% is recovered for recycling each year. That leaves about 9.5 million tons of paper products being disposed of in landfills each year in California. Remember this is tons!
- About 64% of all paper produced goes to landfills, yet all forms of paper (except those contaminated with food waste) are easily recycled.
- Each year, the average student produces about 112 lbs. of paper waste that ends up in landfills.
- Paper products make up about 47% of the total waste being produced at schools in Los Angeles County.

STUDENT PAGE

GENERATION EARTH

CHECK THIS OUT

PILES OF PAPER

2

- It takes 17 trees to make one ton of paper. About 70 million tons of raw paper are manufactured in the United States each year. (That's about 1.2 billion trees used annually in the U.S. alone.)
- Recycling all the newspapers for one Sunday would save an estimated 550,000 trees.
- Paper made from waste paper is called "post-consumer" recycled paper because it has been used and recycled instead of being added to a landfill.
- "Pre-consumer" recycled paper is made from wood and paper scraps that have never been manufactured into other products (like the cut off corners of envelope flaps).

STUDENT PAGE

GENERATION EARTH

CHECK THIS OUT

PILES OF PAPER

3

- "Reduce, reuse, recycle" describes three ways to conserve natural resources and prevent trash in landfills. All three options help the environment, however reducing is the most effective method because it prevents waste in the first place.
- Reducing resources means buying less. Then there isn't any waste to deal with. Using email instead of sending letters is an example of reducing waste.
- Using both sides of a sheet of paper or tailoring clothes in your closet instead of buying new ones are examples of reusing resources.
- Recycling breaks down products like newspapers, telephone books and computer paper into products that can be used again, like computer paper into school notebooks. Collecting paper products for recycling is the first step in this process. The last step is to purchase products made from recovered products.

STUDENT PAGE

GENERATION EARTH

CHECK THIS OUT

PILES OF PAPER

4

- Making paper from raw materials (trees) requires large amounts of water and energy. Paper manufacturing uses more oil than any other U.S. industry and is the third largest industrial user of electricity and coal.
- Most paper manufacturing uses chlorine bleaches and other chemicals linked to serious health problems. If not properly treated, these toxins may be released through waste water from paper plants into streams, rivers and the atmosphere.
- According to one estimate, when new paper is made from discarded paper instead of trees, 60% less water and 70% less energy are used, and the pollutants added to the environment are cut in half.

STUDENT PAGE

GENERATION EARTH

CHECK THIS OUT

PILES OF PAPER

5

- People often use paper and paper products for convenience rather than out of necessity. Putting groceries into a paper bag instead of a canvas one, cleaning with a paper towel instead of a rag, and using paper rather than cloth napkins are examples of this. Paper plates and straw covers are other examples of one-time use convenience items.
- Many manufacturers unnecessarily use excessive paper and cardboard to package a product. Buying in bulk eliminates some packaging waste.
- Paper and paperboard products make up the largest portion of municipal solid waste in the U.S.

STUDENT PAGE

GENERATION EARTH

TOPIC CARD:
THE PROBLEM WITH PLASTIC

READ THIS AS A GROUP

1

When your grandparents, and maybe even your parents, were growing up, plastics weren't a big part of their lives. Today, plastics are used for everything from milk jugs and soda bottles to bicycle helmets and auto parts.

2

Each person reads his/her Check This Out card and takes notes (you will need them later!)

3

As a group, answer the following questions. Hint: Each team member has different information that will help.

think about it!

1. A California law required each city and county in California to divert 50% of its solid waste from landfills and waste-to-energy facilities by the year 2000 through source reduction, recycling and composting. Most cities did not meet this goal and filed for extensions. Why is this goal important to us as students? Give at least three reasons.

2. What's the difference between reducing, reusing and recycling our wastes? Of the three actions, which do you think is most important? Why?

3. How does buying items, such as individually wrapped bags of chips, relate to plastics and packaging disposal issues?

4. What can we do to encourage manufacturers to reduce the oil used for packaging and other one-time uses of plastics?

5. How can we encourage our classmates and others at school and in our community to help reduce the oil used for packaging and other one-time use plastic products?

GENERATION EARTH

CHECK THIS OUT

THE PROBLEM WITH PLASTIC

1

- Plastics are made from oil, a non-renewable natural resource limited in supply.
- Manufacturing plastic requires large quantities of water and energy resources. Plastic manufacturing also produces harmful chemicals that if not properly treated may pollute our water and air systems.
- Plastic packaging is often found as litter on the streets and in the ocean. Marine animals sometimes mistake six-pack rings, plastic bags and other plastic items floating in the ocean as food. In the central North Pacific Ocean, there are six pounds of plastic for every pound of zooplankton.
- Some plastics are bulky and hold their shape and are therefore hard to compact for proper disposal in landfills. Some studies estimate that plastics take up 32% of landfill space.

STUDENT PAGE

GENERATION EARTH

CHECK THIS OUT

THE PROBLEM WITH PLASTIC

2

- The packaging industry is the biggest user of plastics. Because plastics are lightweight, long-lasting, waterproof, see-through and easily made into almost any shape, they are cost-effective and useful for packaging.
- Manufacturers use excessive packaging to appeal to customers.
- Plastics are designed to last a long time, yet are often only used in packaging that is thrown away.
- Each year, the average student produces about 29 lbs. of plastic waste that ends up in landfills. Less than 5% of plastic ever gets recycled.

STUDENT PAGE

GENERATION EARTH

CHECK THIS OUT

THE PROBLEM WITH PLASTIC

3

- Plastics do not easily decompose. Even those designed to degrade only break down into smaller pieces rather than entirely decomposing. These plastics break down only when exposed to sunlight; therefore, they generally do not decompose when disposed of in landfills.
- An alternative to throwing plastic in the trash is to recycle it for money. In many states, including California, a law requires a small deposit on PET (polyethylene teraphthalate) bottle purchases. The state refunds your deposit when you return the bottle for recycling.
- Recycled plastic can be used to make products as varied as benches, clothing, and bags. Although legal elsewhere in the world, making food containers out of recycled plastic is not legal in the United States.

STUDENT PAGE

GENERATION EARTH

CHECK THIS OUT

THE PROBLEM WITH PLASTIC

4

- Many products contain more than one type of plastic, each providing a different characteristic. Combining plastics can make a product almost impossible to recycle since different plastics require different recycling processes.
- The plastics industry has a coding system to help people and industries recycle plastic. These codes are found on the bottom of many plastic packages, imprinted inside a small recycling symbol. Items coded with a 1 or 2 are commonly easy to recycle. These plastics are turned into carpets, clothing, non-food containers, motor oil or detergent bottles, pipes, pails and other new products.
- It is hard to find markets for recycled items marked with codes 3, 4, 5, 6 or 7. Without a source to sell these recycled plastics to, recyclers put less emphasis on these materials. New markets for these plastics are currently being created in the U.S. and other countries.

STUDENT PAGE

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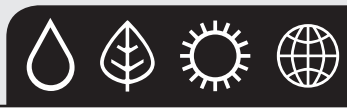
CHECK THIS OUT

THE PROBLEM WITH PLASTIC

5



- "Reduce, reuse, recycle" describes three ways to conserve natural resources and prevent trash in landfills and the ocean. All three options help the environment, however reducing is the most effective method because it prevents waste in the first place.
- Reducing resources means buying less. Then there isn't any waste to deal with. Not buying individually packaged foods and avoiding plastic wrap are ways to reduce plastic waste.
- Drinking from a reusable commuter mug or bringing lunch to school in a lunch box are examples of reusing resources.
- Recycling breaks down plastic products like water bottles and food containers into other things that can be used again, like bottles into cloth shopping bags. By collecting these products for recycling and then buying new products made from recycled goods, we are fully participating in the recycling process.

STUDENT PAGE

GENERATION EARTH

TOPIC CARD: HAZARDOUS HAPPENINGS

READ THIS AS A GROUP

1

You may not think of your home as a storage place for dangerous products, but check the labels on the cans and bottles under the sink: all products labeled "corrosive," "flammable," "irritant," or "poison" contain hazardous compounds. Consumer electronics, including cell phones, computers and televisions, contain potentially harmful substances that can get into the environment. Hazardous wastes contain potentially toxic substances that can be harmful to human health or the environment, especially if not disposed of properly.

2

Each person reads his/her Check This Out card and takes notes (you will need them later!)

3

As a group, answer the following questions. Hint: Each team member has different information that will help.

think about it!

1. Why is it important to us as students to help keep hazardous materials out of Los Angeles landfills? Give at least three reasons.
2. How can we safely dispose of household hazardous wastes?
3. What effect does buying batteries or cleaning supplies have on the environment?
4. What can we do to encourage manufacturers to reduce the number of toxic household products they make?
5. How can we encourage our classmates, friends, and neighbors to help reduce the toxic substances being used at home or school?

STUDENT PAGE

GENERATION EARTH

CHECK THIS OUT

HAZARDOUS HAPPENINGS

1

- Only about 1% of household waste is estimated to be made up of hazardous compounds, but it has the greatest potential to pollute the environment through improper and often illegal disposal.
- Many common household products turn into hazardous wastes. Products like bathroom cleaners, batteries, bug spray, disinfectants, drain cleaners, empty aerosol cans, floor care products, glue, lighter fluid, moth balls, motor oil, nail polish remover, oven cleaners, oil-based paints, perfumes, rat poison, and window cleaners are all examples of hazardous waste.

STUDENT PAGE

GENERATION EARTH

CHECK THIS OUT

HAZARDOUS HAPPENINGS

2

- It is illegal to dispose of most hazardous wastes in a landfill or waste-to-energy facility, a place that turns garbage into electricity.
- If we throw hazardous materials into the trash at home or at school, they will most likely end up in landfills or at waste-to-energy facilities throughout Los Angeles County.
- Workers are sometimes hurt by unknowingly handling toxic materials that have been thrown into the trash.

STUDENT PAGE

GENERATION EARTH

CHECK THIS OUT

HAZARDOUS HAPPENINGS

3

- Chemicals from hazardous wastes do not easily degrade. Once in the environment, they last an extremely long time, continuing to be a serious health hazard.
- Once hazardous chemicals get into the water system – whether through the drain or the gutter– they can be taken up into plants through their roots. As the plants move their way up the food chain to larger and larger animals, the chemicals accumulate in a process called bio accumulation. As a result, animals high on the food chain can die from eating large doses of toxic chemicals.
- Humans eat high on the food chain and can be harmed by eating goods containing large concentrations of toxic chemicals.

STUDENT PAGE

GENERATION EARTH

CHECK THIS OUT

HAZARDOUS HAPPENINGS

4

- Electronics may contain lead, copper, and other heavy metals or potentially toxic substances. This makes it critical to reduce E-waste by only buying what you need, reusing electronics that still work, and recycling them at the end of their useful life cycle.
- The Household Hazardous Waste Collection Program in Los Angeles County is a good way to dispose of hazardous household products. Through the program, residents can bring many kinds of unwanted chemicals and electronics, free of charge, to roundup locations throughout the county or to one of the five permanent collection facilities for proper disposal. Call 1-888-CLEAN-LA for collection facility locations and event dates in your area.

STUDENT PAGE

GENERATION EARTH

CHECK THIS OUT

HAZARDOUS HAPPENINGS

5

- Hazardous materials are almost always labeled and include directions for proper disposal. Some must be taken to special collection sites designed for household hazardous materials.
- There are safe alternatives to many household hazardous materials. For instance, vinegar and baking soda can be used in place of window cleaners and cleansers.
- One of the best ways to avoid the dangers of household hazardous wastes is not to buy them in the first place.

STUDENT PAGE

ENVIRONMENTAL INFORMATION

legislative review

AB (ASSEMBLY BILL) 939

Assembly Bill 939 (AB 939), also known as The Integrated Waste Management Act, was passed in California in 1989. This law focuses on the massive amount of waste – 76 million tons a year – that travels to diminishing landfill space in California. The law accomplished two very important things. First, it instated a plan requiring jurisdictions in California to reduce the amount of trash they send to landfills by *source reduction* (reducing waste by not creating it in the first place or reusing what's already been made), *recycling* glass, paper and aluminum and *composting* food waste. Second, it created the California Integrated Waste Management Board (CIWMB) to help cities and counties achieve their waste-erasing goals.

Specifically, AB 939 required cities and counties in our state to divert 25 percent of all solid waste from landfills by 1995 and to slice it in half by 2000. The year 2000 has come and gone and while many places have not reached their goals, others have met and even surpassed them. The CIWMB is continuing to work with all jurisdictions to cut down on trash.

One place that AB 939 does not apply is to schools. Schools are not required to divert their trash by law, but since students produce about three pounds of trash every day, school campuses have an amazing opportunity to reduce, reuse and recycle all that *stuff*.

websites to check out:

CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD www.ciwmb.ca.gov

SANITATION DISTRICTS OF LOS ANGELES COUNTY www.lacsd.org

ENVIRONMENTAL INFORMATION

CONTINUED

sample career questions to ask

1. What are classes in the environmental field that your college offers?
2. What field of study or major do these classes support?
3. What careers do students go into that are in this field of study?
4. What is the minimum schooling required? (example: Bachelor's Degree)
5. What is the recommended schooling? (example: Master's Degree)
6. Do you need any certification or credential?
7. What coursework is necessary while in high school?
8. What is the starting salary in this field?
9. What is the average salary in this field?
10. What personal skills are necessary for this field?
11. What is the work environment (indoor/outdoor, one location/multiple locations)?
12. Who do you work for in this field (government, private, nonprofit, etc.)?
13. What is the outlook for this field (growing, steady, etc.)?
14. Describe some of the job duties related to this field.

ENVIRONMENTAL INFORMATION

organizations that offer waste-related volunteer opportunities

BURBANK RECYCLING CENTER

500 South Flower Street

Burbank, CA 91502

(818) 238-3900

Tennis shoe recycling collection (partners with NIKE'S REUSE-A-SHOE PROGRAM).

Opportunities for student volunteers to collect and sort items or complete office tasks.

NIKE REUSE-A-SHOE PROGRAM

Nike Recycling Center

c/o Reuse-A-Shoe

26755 SW 95th Ave.

Wilsonville, OR 97070

Nike collects used athletic shoes of any brand that do not contain metal.

Used shoes are made into everything from recycled manufacturing material for soccer and baseball fields to foam for playground surfaces.

Students can organize their own collection day and send the shoes to Nike.

L.A. SHARES

Local non-profit materials reuse program.

Takes donations of goods and materials from the local business community and redistributes them free of charge to non-profits and schools throughout Los Angeles County.

Volunteer sign-up on website, www.lashares.org.

EARTH RESOURCE FOUNDATION

1706 B Newport Blvd.

Costa Mesa, CA 92627

(949) 645-5163

Email: info@earthresource.org

www.earthresource.org/index.html

Founded in 1999 to empower the general public with the resources needed to make environmentally sustainable choices and changes.

Hosts clean-ups and other waste reduction events.

DISNEY

Waste minimization policy

In 2002, Disney diverted 100,000 pounds from landfills and has recycled 650,000 tons in the last thirteen years.

Hosts the Jiminy Cricket school environment challenge annually.

Contact Christiana Mertens at Disney's Environmentality division for seasonal opportunities (818) 553-7245.

www.disneyenvironmentality.com

ENVIRONMENTAL INFORMATION

CONTINUED

recycling project guidelines

1. Work with a facilities manager to decide what you are going to recycle. For example, will you recycle paper, aluminum, or a combination of recyclables?

2. Find out who will take the recyclables. Is this a local hauler or recycling facility? Discuss whether you can receive money for some of your recyclables. Contact your local authorities or hauler for assistance.

3. Decide how you will collect the recyclables and where they will be distributed. For example, will you use cardboard boxes in rooms, collection bins in eating areas, or both?

4. Work out a budget. How much will it cost to do this? It depends if you need to purchase items, or if they can be made or donated.

5. Clearly label what items are to be collected in each container.

6. Establish a system for collecting the recyclables. Enlist additional volunteers to empty the containers for hauling.

7. Establish a system and location for storing the recyclables. For example, are these large plastic containers kept in a storage facility or is everything kept in one dumpster?

8. Decide how you will promote your program and keep it going. Posters and banners are good, but you can get creative. For example, promote a contest with a waste reduction goal and a reward for reaching it.

9. Figure out how you will keep your program going. What can be put in place to ensure that others will continue to recycle? Talk with the facilities manager or others in decision-making positions about how this can happen.

ENVIRONMENTAL INFORMATION

working with children

The best way to learn about a particular subject is to teach it to others. Working with children is not only an ideal way to learn and teach about waste reduction, but it can also be very rewarding.

One example of a project conducted by teens for younger students involved students at North Hollywood High School. Students of their Naturalist Academy hosted an Earth Day event for students from four local elementary schools. The high school students gave tours of their agriculture area and guided elementary students in planting and mural-painting activities. Presentations on environmental issues and poetry reading were also included.

Another example was the painting of "traveling murals" on large sheets of plywood. Over 20 murals were painted with themes about waste reduction including: "Stash Your Trash," "Waste Not, Want Not," "Love Your School, Fool," "Can It!" and "Mr. Clean is a Love Machine." The high school students traveled to various elementary schools to display the murals and talk about waste reduction.

SOURCES FOR GROUPS OF CHILDREN

ELEMENTARY SCHOOLS – talk with the Principal

BROWNIE GIRL SCOUT TROOPS – talk with the local Girl Scout Council for names of Troop Leaders in your area

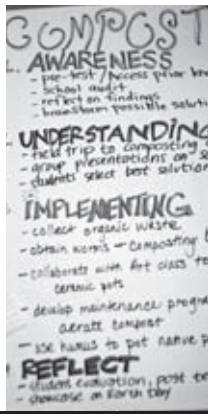
AFTER-SCHOOL PROGRAMS – talk with the Program Directors

CAMPS – talk with Camp Directors

HELPFUL HINTS

- Make sure activities and discussions are appropriate for the attention span of the participants. Check with the supervising adults to make sure your program is age-appropriate.
- Include hands-on activities. Children prefer to be actively involved in the learning experience.
- Use demonstrations and other active or visual instructions when showing how to do tasks.
- Be patient. It may take time for them to understand and get engaged in your program.
- Be an active participant and have fun!

SERVICE PROJECT IDEA MAPPING ACTIVITY



TIME **45 MINUTES**

OVERVIEW

After thinking about what has been learned about waste and waste reduction, teams develop ideas for a project by creating a poster and using the Project Map as your guide. Teams present their ideas, and looking at the resources, materials, time, and impact to the community, the entire group assesses and chooses which service project they want to do.

materials

- ☐ Poster paper – 1 per group
- ☐ Markers – 1 set per group
- ☐ Project Map – 1 per group
- ☐ Idea Web – 1 per group

procedure

1. Break up into working teams.

2. Each team gets a Project Map and an Idea Web. One gives the instructions, the other shows how to set up the poster.

3. Follow the Project Map instructions and create an idea for a project by illustrating it on poster paper to present to the entire group (see Idea Web layout).

    a. Project Idea – What ideas do you have for a project that will improve or eliminate the issue of waste? State this in the center circle.

    b. Project Goal – This is the goal describing what you want to achieve. A measurable goal is easiest to assess. List this at the bottom of your poster.

    c. Human Resources – These are your resources. Who can help you to achieve your goal – community organizations, agencies, your principal? List these in the top right circle.

    d. Supplies and Materials – These are the materials necessary to complete the project. Do any cost money or can they be donated? List these in the bottom right circle.

SERVICE PROJECT IDEA MAPPING ACTIVITY

procedure continued

e. Timeline – This is an estimated timeline. How much time will it take to accomplish and how much time do you have to complete it? Is it a one day or one month project? List this in the top left circle.

f. The Bigger Picture – This lists the greater impact to the community and the environment. What significance will your project have? List this in the bottom left circle.

4. Once complete, each team presents their ideas to the entire group.

5. As a group, looking at the resources, materials, time, and impact to the community, assess and choose which project seems most practical and most exciting to you.

SERVICE PROJECT MAP

GENERATION EARTH

1 Target the Issue

What are some concerns on your campus/in your community?

WASTE REDUCTION
After nutrition/lunch, is there trash on the ground?

RECYCLING
Is there an unsuccessful recycling program at your school?

CAMPUS FLOODING
Does your campus flood when it rains?

WATERSHED PROTECTION
Are there pollutants/trash in the river/beach near your school?

ILLEGAL DUMPING
Are there items (couches, etc.) that are dumped illegally near your school?

List the environmental issue at the top of your poster.

2 Project Idea

What are you going to do about it?

Some examples include:

WASTE REDUCTION
Idea: Conduct a waste reduction campaign.

RECYCLING
Idea: Set up a classroom recycling contest.

CAMPUS FLOODING
Idea: Plant trees and/or a native plant garden.

WATERSHED PROTECTION
Idea: Conduct an e-waste collection campaign.

ILLEGAL DUMPING
Idea: Conduct a community-wide education and clean-up project.

Place your project idea in the center circle of your project poster.

3 Project Goal

What do you hope to acheive?

EXAMPLE:
We will reduce waste on campus by 50% – half the number of dumpsters filled each trash pickup.

Write your goal at the bottom of your project poster.

4 Human Resources

Who are the people and/or organizations that can help you achieve your goal?

EXAMPLE:
Principal • Community members
Government Agencies • Advisor
Family/friends • Students
Environmental Organizations

Write your resources in the upper right circle of your project poster.

5 Supplies/ Materials

What do you need?

Do they cost money? Can some be donated or do you need to raise money?

Write out what you need and how you can get them in the lower right circle of your project poster.

6 Timeline

When does your project need to be completed?

EXAMPLE:
It needs to be completed by Earth Day – we have one month.

Write your timeline in the upper left circle of your project poster.

7 The Bigger Picture

What significance will this project have on you, your community and the environment?

EXAMPLE:
Us: It will reduce the amount of trash we see on campus.

Community: It will provide extra money for the school from recycling paper and bottles.

Environment: It will cut down on the amount of waste going to landfills and save natural resources.

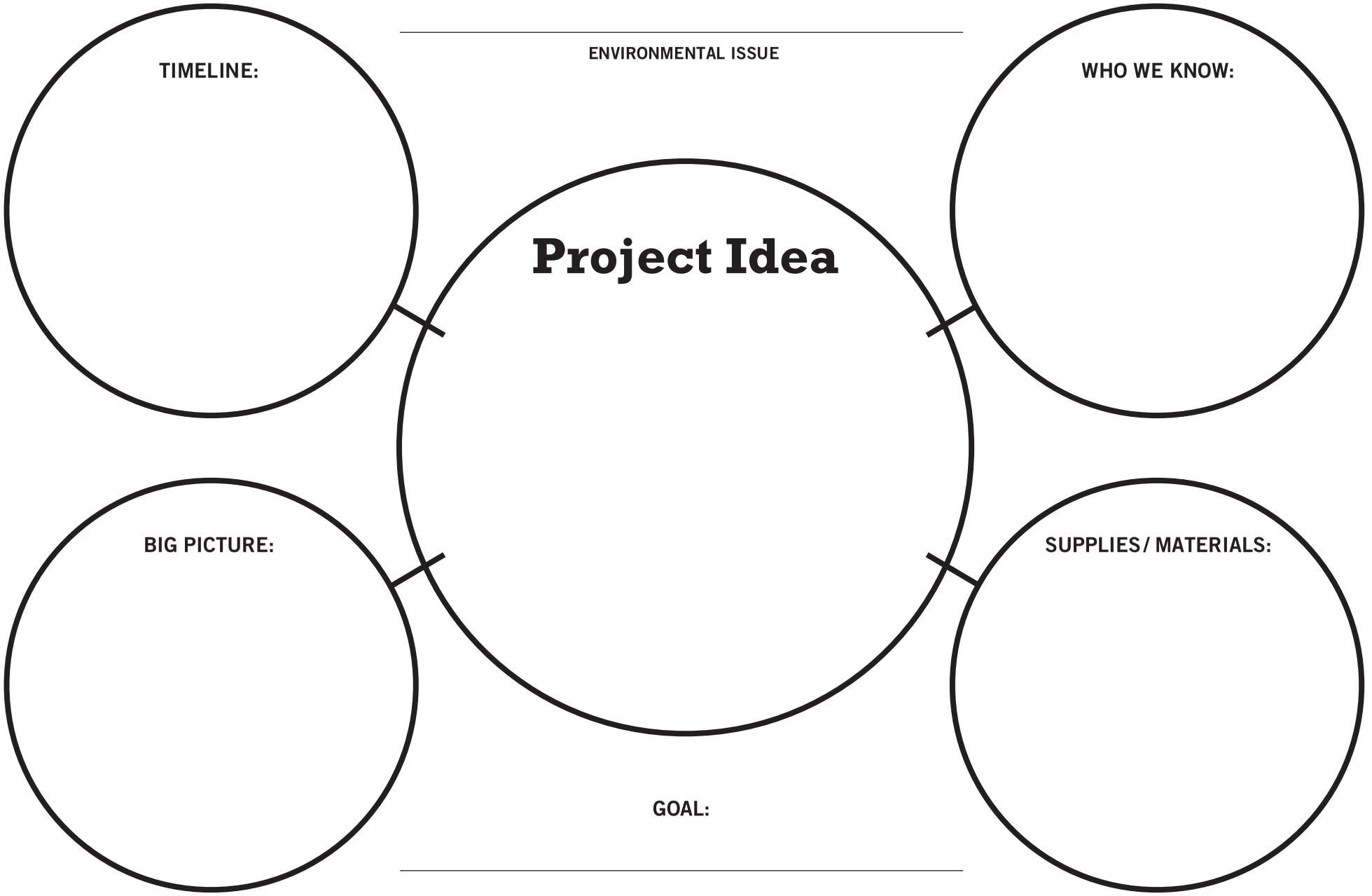
Write your Big Picture in the lower left circle of your project poster.

8

CONGRATULATIONS!

You've made it! You now have an idea to present!

IDEA WEB


TIMELINE:
ENVIRONMENTAL ISSUE
WHO WE KNOW:
Project Idea
BIG PICTURE:
SUPPLIES/ MATERIALS:
GOAL:

WHAT A WASTE

FINAL REPORT

GENERAL INFORMATION

Contact Name _____

Phone number _____ Email address _____

Group name _____

Group type ☐ Club ☐ Troop ☐ Class ☐ Individual

Mailing Address _____

_____

REQUIREMENTS Check which activity you've completed

Explore the Issue ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6

Comments

_____

Link to Technology ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Comments

_____

Career Path ☐ 1 ☐ 2 ☐ 3 ☐ 4

Comments

_____

Service Project ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Describe in detail the service project you've completed _____

_____

_____

_____

_____

What values, opinions, or decisions have you made or changed through this experience?

How effective was the project in lessening your or your community's impact on the environment?

RECOGNITION

Recognition Choice ☐ Earth Tag ☐ Patch

Recognition items and Certificates of Completion will be sent or delivered to the given address.

Name of participants (print clearly) _____

_____

_____

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_____

_____

_____

_____

_____

_____

Teacher/Advisor name (print) _____ Date _____

Teacher/Advisor signature _____

GENERATION EARTH

PRODUCT GROUP FROM WELL-MANAGED FORESTS AND OTHER CONTROLLED SOURCES

AN ENVIRONMENTAL EDUCATION PROGRAM

OF THE COUNTY OF LOS ANGELES,
DEPARTMENT OF PUBLIC WORKS

presented by TreePeople

FOR MORE INFORMATION OR TO REGISTER FOR UPCOMING WORKSHOPS, CONTACT GENERATION EARTH AT:

generationearth@treepeople.org 818.623.4856 FAX 818.753.4645

WWW.GENERATIONEARTH.COM WWW.888CLEANLA.COM