

## Why should we recycle?

In New Jersey, recycling became a law in 1987. That means in 2017, recycling will celebrate its 30th birthday! You would think that everyone in New Jersey would be recycling by now. But guess what? Not everyone in New Jersey recycles! Does that surprise you? Well, it surprises us, and that's why we need your help. We need you to help spread the word about recycling. That's why you have this newspaper — it's all about what's going on with recycling in Bergen County. We're hoping that you'll read this newspaper and share what you've learned with your family and friends. Why? Keep on reading...



## A Few Recycling Factoids

1. Everyone makes garbage every day. That makes taking care of garbage everyone's duty. If you make it, you become responsible for what you do with it.
2. We each make about 4 pounds of garbage every day. Now that might not sound like such a big number to you, so let's do a little math. Let's say there are 25 students in your class. If each student makes 4 pounds of garbage every day, then each day your class makes 100 pounds of garbage (25 students x 4 pounds = 100 pounds). Do you see how that little number 4 quickly turned into a much larger number? And all we did was use the number of kids in one class! We didn't count all of the other kids in all of the other classes in your school, OR all of the other kids in all of the other classes in all of the other schools in your town. Get the picture? That little number 4 just keeps on growing — every single day!
3. Most of our garbage goes to a landfill. What's a landfill, you ask? You may know it by another name — a garbage dump. What happens to garbage in a garbage dump? Well, not too much. In today's landfills, natural processes that would make garbage rot (decompose) get slowed way down. And when things that SHOULD decompose CAN'T decompose, they can sit in that landfill for decades, and maybe even much, much longer. When you put things in a landfill that are not meant to decompose, like glass and plastic, they will hang around even longer — maybe forever! This is where recycling comes in. By recycling, we turn old items into new products, keeping them out of landfills, preserving natural resources, and saving energy, too!

## What do we recycle in Bergen County?

Here is a list of all the different things you can recycle at home:

- Newspaper
- Mixed paper, such as magazines, catalogs, printer paper, mail, and school papers
- Glass bottles and jars
- Aluminum cans
- Steel (ferrous) scrap and tin cans
- Plastic containers marked #1 and #2, such as water and soda bottles, milk jugs, shampoo bottles, and detergent jugs
- Large appliances (often called "white goods")
- Corrugated cardboard
- Leaves
- Grass
- Trash from constructing and tearing down buildings (often called "construction and demolition debris")



## How much does Bergen County recycle?

In 2012, there were 905,116 people living in Bergen County. Our recycling rate for that year was 49%. That means Bergen County residents recycled almost half of their garbage. Good job, Bergen County!

## Learn more about recycling in Bergen County

If you are looking for information about recycling, or if you want to know what to do with old computers, TVs, cell phones, old paint, or any of the things you can't put in your recycling bin at home, just call us. Our hotline number is 201-807-5825. Ask your question (be sure to leave your name and phone number, too) and someone will call you back. You can also get lots of information by visiting our website at [www.bcu.org](http://www.bcu.org).

# FRACTION ACTION

Miss Spinner's class is creating an Earth Day quilt. Jaylen brought 1/2 yard of yellow fabric. Baylor brought 3/4 yard of green fabric. Madison brought 2 1/3 yards of blue fabric.

How many total yards of fabric did the students bring to school?

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If the quilt requires 3 1/2 yards of fabric, how much will be left over?

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If 5/8 yard of yellow fabric is needed, did Jaylen bring enough yellow fabric?

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## Zero garbage day at school

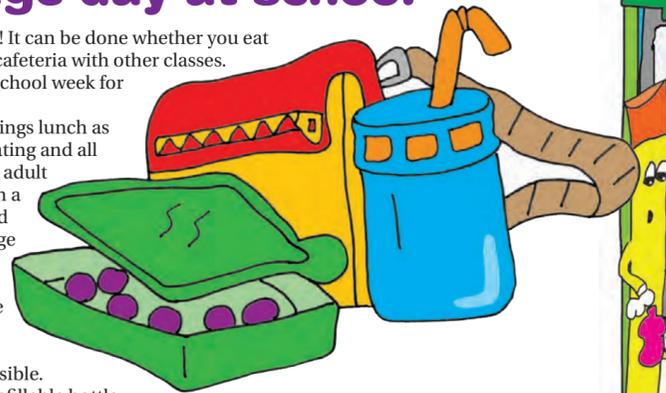
This is a fun idea to try at school! It can be done whether you eat lunch in your classroom or in a cafeteria with other classes.

Select two days during one school week for this project.

On the first day, everyone brings lunch as usual. When everyone is done eating and all garbage is thrown away, have an adult weigh it all. Record the weight on a sheet of paper. If possible, spread the garbage on the floor on a large piece of plastic and take a picture of it.

On the second day, everyone should bring a low-waste or waste-free lunch using as many reusables and recyclables as possible. For example, bring a drink in a refillable bottle instead of in a drink box; pack a sandwich in a washable sandwich container instead of a plastic bag; include a cloth napkin instead of a paper napkin, etc. After lunch, do the same thing you did on the first day. Weigh the garbage and, if possible, take a picture of it. If most of the kids in your class or school participate, you will find that the garbage on the second day will weigh a lot less than the garbage on the first. And, if you are able to take pictures, well . . . the pictures will speak for themselves!

What does all of this prove? It proves that kids have the power to make a positive difference in how much garbage their school makes!



## Schools receive challenge grants

For the 10th year in a row, the BCUA was pleased to award Environmental Awareness Challenge Grants. This year, 85 schools received grants of up to \$1,000! This money will help schools undertake projects that are related to environmental awareness, such as recycling, waste reduction, reducing litter, water pollution, air pollution, and solid waste (garbage) management.

Many schools will use their grant funds to start or improve a recycling or composting program. This grant, which is available to all Bergen County public and private schools, is sponsored by the BCUA and funded entirely by New Jersey Department of Environmental Protection grant funds for recycling and environmental education.



## Vocabulary Words

Biodegradable Waste – waste, such as food and garden waste, that can break down or rot naturally when attacked by bacteria and insects

Compost – a mixture of decaying leaves and vegetable scraps that is used to improve garden soil

Conserve – to use or manage wisely; preserve; save

Environment – the air, water, soil, and all of the other things that surround all living things

Food Scraps – parts of food that we don't normally eat, such as banana peels, orange peels, egg shells, watermelon rinds, etc.

Hazardous Waste – waste, such as paint, batteries, gasoline, and cleaners, that can be harmful to humans, other living things, air, water, and/or land, and which must be carefully disposed to prevent pollution

Litter – waste (usually paper, plastics, or glass) tossed on the ground or into waterways rather than being placed in a proper trash or recycling bin (Not all waste is litter, but all litter is waste.)

Packaging – materials (boxes, bottles, plastic, etc.) used to hold, wrap, and protect products so that they can be sold

Pollution – chemicals and other substances that have a harmful effect on air, water, land, or living things



## STEP BY STEP

Abrianna decided to write down the steps for recycling paper, aluminum, and plastic, but she needs your help figuring out the correct order. Read the steps below and then number them 1 through 5 in the order they should occur.

### Paper

- \_\_\_ Pulp is fed through large rollers to remove water and make the new paper smooth.
- \_\_\_ A machine chops the old paper into small pieces and water is added to create pulp.
- \_\_\_ The pulp is put on screens to filter out any large or unwanted pieces.
- \_\_\_ Finished paper is wound into large rolls.
- \_\_\_ The pulp is washed and cleaned and then turned into a slush or slurry.

### Aluminum

- \_\_\_ Melted aluminum is formed into large blocks, called ingots.
- \_\_\_ The aluminum is shaped into new aluminum cans and products.
- \_\_\_ Used aluminum is sorted and cleaned.
- \_\_\_ The aluminum ingots are rolled out into long, flexible sheets.
- \_\_\_ The aluminum is melted down.

### Plastic

- \_\_\_ The pellets are mixed with dyes and formed into new bottles and other products.
- \_\_\_ The plastic flake is washed and cleaned.
- \_\_\_ The plastic is shredded into small pieces, or flakes.
- \_\_\_ The melted plastic is made into pellets.
- \_\_\_ Shredded plastic is melted so that it can be reshaped.

## BEGINNINGS & ENDINGS

Add a prefix and/or suffix to each word and then put the word into the correct sentence below. (Hint: Sometimes you need to drop the "e" when adding a suffix.)

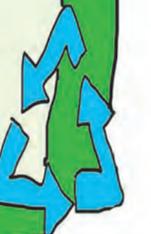


\_\_\_pose    response\_\_\_    \_\_\_correct  
ease\_\_\_    \_\_\_cycle\_\_\_

## RECYCLE

1. Look for notebook paper with \_\_\_\_\_ content.
2. We are all \_\_\_\_\_ for making our world a cleaner and healthier place to live!
3. \_\_\_\_\_ of used paper towels in the trash, but recycle the tube when the roll is empty.
4. Make it \_\_\_\_\_ for your family to recycle by putting a recycling bin right next to the trash can.
5. Dominick kept finding recyclables in the \_\_\_\_\_ bin at his school, so he created a sign to show which items went into the recycling bin and which didn't.

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## Worms eat my garbage!

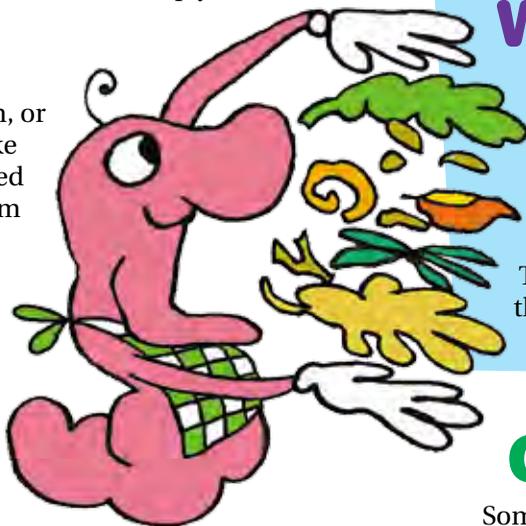
*Wonderful Working Worms!* is the name of the BCUA's worm composting education program. If you have experienced the Wonderful Working Worms program, then you probably have learned a lot of new vocabulary words. Words like *decompose*, *decomposers*, *compost*, *vermicomposting*, and *worm castings*, just to name a few. Can you remember what those words mean? If not, look for them in this article to help you remember.

Worms are one of nature's best decomposers, which means they take things apart and help break them down, or decompose. Not only do the worms take things apart, but after they have digested what they need, they leave behind worm castings in the soil. These castings are rich in vitamins and nutrients. They contain good stuff that the Earth's soil needs to stay healthy. And since we grow our food in the Earth's soil, the healthier the soil, the healthier our food will be! And if the food that we eat is healthier, we will be healthier, too! Millions and millions of these worm castings create compost, which we can add to existing soil. Adding compost to the Earth's soil is like giving the Earth vitamins.

What is a little different about our program is the fact that we talk about and look at worms that live indoors. Yes, indoors — in a worm bin. Making compost indoors with worms is called vermicomposting. Can worms really survive living inside? Yes, if you give them a habitat (home) that is very similar to what they would have outside. That is why we make a worm bin. A home in a worm bin is just as good as their homes outside. In a way, it's even better because it's temperature-controlled, and the worms that we use in our worm bin like warmer temperatures. Do you remember the type of worms that make the best vermicomposters? They are called Red Wigglers.

Why would we want to keep worms inside? Some people don't have a yard or they just don't want to have a compost pile in their yard, but they still want to make compost. When you have a worm bin, you can compost indoors. Red Wigglers are the best indoor composters. And as we said before, they actually don't mind living inside. Here is the "recipe" for creating a worm bin:

- Get a large plastic container with a lid. Have an adult help you put some tiny air holes in the lid.
- Take some damp, shredded newspaper and layer it in the container



until it is about three-quarters full. Then, sprinkle the newspaper with 2-3 cups of peat moss (a kind of dirt).

- Mix it all up so that you have a container of dirty, wet newspaper. What you have just made is called the "bedding." This bedding is going to be the worms' home for the next few months.
- Instead of throwing your food scraps in the garbage, break them into tiny pieces and put them at the bottom of the bedding. Food scraps are the parts of food that we don't normally eat, such as banana peels, apple cores, orange peels, watermelon rinds, wilted lettuce leaves, egg shells, etc. DO NOT ever use any meat, bones, or dairy products. Why? Because those things will start to smell before they decompose and your worm bin will become very yucky! So stick to fruits and vegetables, plus egg shells and coffee grounds. Worms DO need some grit to help them digest.
- Now for the finishing touch — ADD 100 RED WIGGLER WORMS and let them go to work! You can buy Red Wiggler worms online. Feed them once or twice a week (make sure the old food is gone before you add new), keep their bedding moist (not too wet, not too dry), and turn it over every so often so that air can flow through it. In about five months, you will have a container full of compost that you can use in a flower or vegetable garden.

Are you ready to get up close and personal with some hard-working worms? To schedule a visit with our Wonderful Working Worms, or for information about our other free recycling and waste reduction education programs for all elementary schools in Bergen County, have your teacher contact Angela Bonanno-Lynch, Solid Waste Education/Technical Advisor, at 201-807-5821 or abonanno-lynch@bcua.org.

## Wormy wonders

Worms have a brain and a mouth, but they DO NOT have eyes, ears, noses, or teeth.

They have five hearts.

They have fuzzy hair on their bottom-side, which helps them move along the ground.

They do not have lungs. They breathe through their skin, which is why they need to be moist all the time. If they get too wet, they will drown. If they get too dry, they will dry out and die.

## Get rid of it the right way!

Some things that we no longer want or need do not belong in our garbage and can't be recycled with our paper, cans, glass, and plastic. Things like computers, old TVs, old paint, lawn chemicals, and bug killers are some examples. The BCUA has special collection days at different locations during the year for all of these things. Tell your family to go online to [www.bcua.org](http://www.bcua.org) for information. You'll find information about collection events for household hazardous waste (chemicals), computers and other electronics, tires, and private papers that need to be shredded. You can also call our Environmental Programs Hotline number at 201-807-5825 for information.





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