
Celebrate
Earth Week
April 19-24,2021
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Clean Earth, Green Earth
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Newspaper in
Education

Clean Earth, Green Earth

Happy Earth Day!

Since 1970, Earth Day has been celebrated as a global event recognized by more than 192 countries. Earth Day is dedicated to our beautiful Earth: celebrating it, enjoying it and of course, considering ways to protect it.

It's no secret that the environment matters. However, if you're just one person, it's easy to feel overwhelmed by how much there is to do. How can one individual make a difference in such a big world? Turns out, even the smallest steps can have an impact.

Be a Power Saver! Turn off the lights, TV or other plugged-in item when you leave a room.

Be a Water Saver! Turn off the water while you are brushing your teeth. Take a shower instead of a bath to save water.

Don't be a litterbug! Pick up trash (at least 10 items) around your school or neighborhood.

Reduce! Use both sides of your paper before you recycle it.

Reduce! Use cloth towels instead of paper towels.

Reuse! Use a reusable bottle instead of plastic water bottles.

Reuse! Use cloth/reusable bags instead of plastic grocery bags at the store.

Recycle! Recycle at least one plastic item, one paper item, and one metal item (canned food).

In this booklet, we will discover why the plants on our Earth are so important for all of us and how we can make our Earth a little greener.

Benefits of a Green Earth

Plants Provide Oxygen

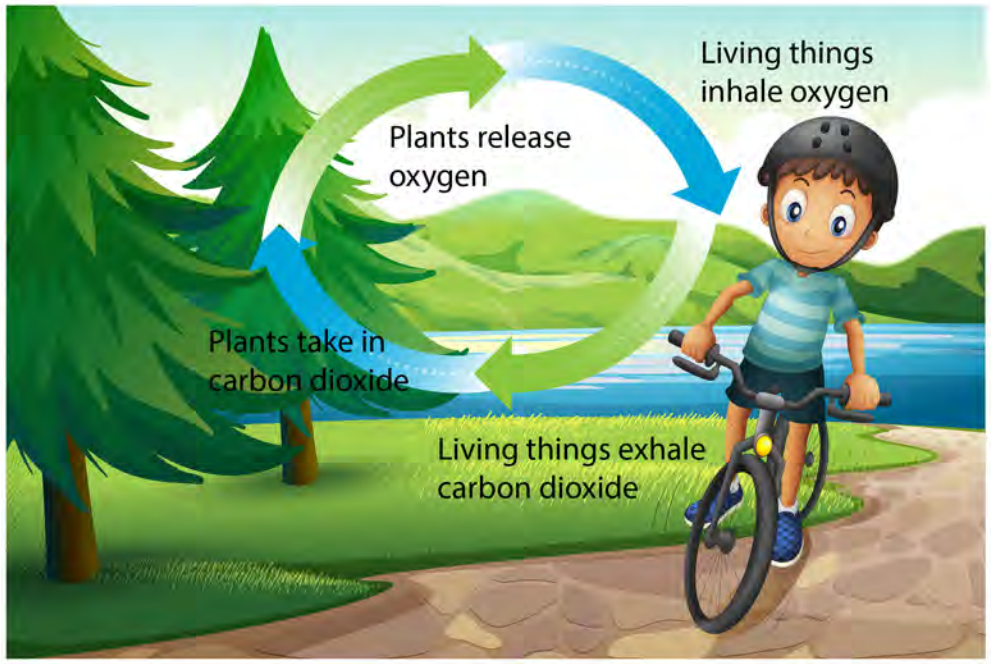
Who doesn't love to see a tree in full blossom, appreciate the touch of delicate grass under our feet and breathe in the sweet scent of flowers? Plants are an important part of our Earth.

Plants are really important for the planet and for all living things. We have a symbiotic relationship with plants called **mutualism**. Mutualism is an interaction between organisms that requires contributions from both organisms and in which both benefit. We exhale carbon dioxide, and plants need carbon dioxide to thrive. At the same time, plants produce oxygen after taking in carbon dioxide. We need plants, and they need us.

In this experiment, we can see how plants release oxygen into the environment.

Materials: water, a flower or leaf from a living plant,sunlight, shallow bowl

1. Submerge the leaf or flower into a bowl of water. The flower or leaf may float to the top, but try to make at least part of the plant stay underwater.
2. Put the bowl under the sunlight and wait. (You can also leave it in the dark but it may take longer to see results.)
3. After an hour, observe the plant's surface. There should be some air bubbles formed on the petals or the leaf.



Benefits of a Green Earth

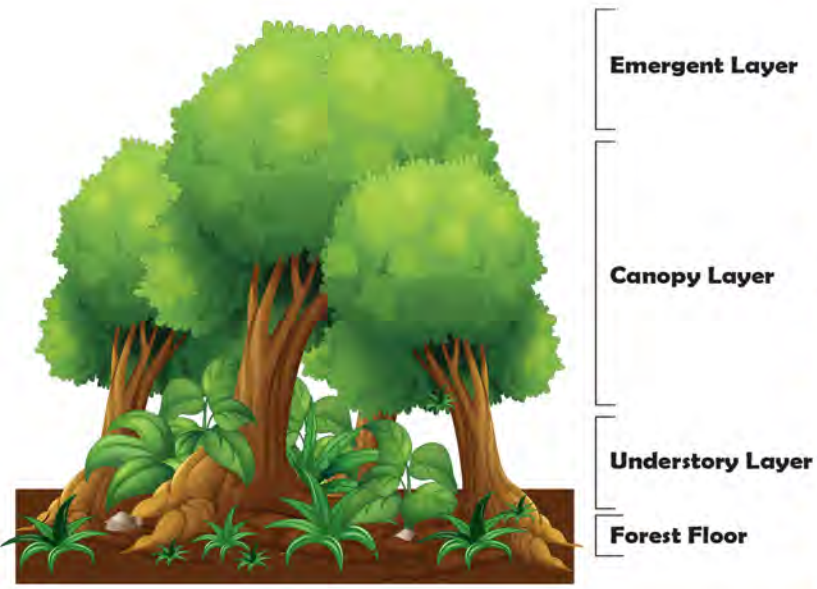
A habitat is a place where an organism makes its home.

Plants Provide Habitats

Plants are the primary habitat for thousands of other organisms. Animals live in, on or under plants. The plants provide food, shelter from weather (rain, sun), nesting place, sleeping ground and hideout from predators.

For example, a typical forest consists of four different layers. Different types of plants grow to form these different layers. These layers enable many different types of plants and animals to live in a small area. Starting at the top, the layers are:

- Emergent: Giant trees that are much higher than the average canopy height, housing birds of prey and insects.
- Canopy: The upper parts of the trees form a roof that blocks a good deal lot of light from entering the forest. Animals that live here include insects, birds, reptiles and mammals.
- Understory: A dark, cool environment under the leaves but over the ground. Many plants in the understory are woody plants. Animals living in the understory may include frogs, snakes, squirrels, chipmunks and birds
- Forest Floor: This layer contains leaf litter, which is made up of fallen leaves, branches, needles and decaying matter. It also contains smaller plants like grasses and flowers. Most insects and the largest animals in the forest generally live here.



Visit a forest and observe.

1. Closely examine the forest floor. Do you observe any animals or signs of animals in this layer? You may have to look carefully and move the leaf litter to the side.
2. Closely look at the understory layer, which includes plants with woody stems. What animals do you observe in the understory layer.
3. Now examine the canopy. Can you see any animals in this layer? You may need binoculars for a closer look.
4. Does your forest have an emergent layer? Do you observe an animals?

Write a story that shows what you have learned about the layers of a forest. Imagine that you are the size of a mouse. Write a story about an adventure in which you ride an elevator up and down in the forest and get off on three different layers. Your story should answer the following questions: What plants do you see in each of the layers? What animals do you encounter? What kinds of trouble do you find yourself in? How do you get around in each layer?

Write a paragraph about each layer. Your story should also include an introductory paragraph that tells how you shrink and how your adventure begins. You should also write a concluding paragraph that explains how you get home safely.

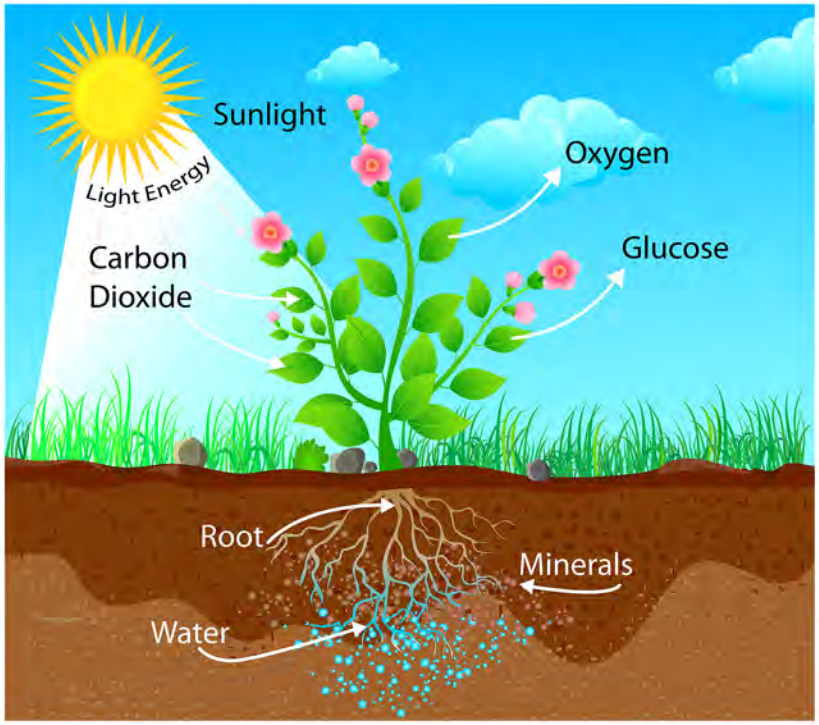
Plants Provide Food

Without plants, birds and other animals would have nothing to eat. In fact, without plants there would be no life on Earth at all. Not only are they a healthy part of our meals, providing nutrients, vitamins, minerals, fiber and water, but they are also the base of the entire food web!

Most of the meat and dairy products that people eat were produced by farm animals that were fed plants. That means that even when you are eating meat, you are indirectly eating vegetables.

Plants are called producers because they make (or produce) their own food. Their roots take up water and minerals from the ground and their leaves absorb a gas called carbon dioxide (CO_2) from the air. They convert these ingredients into glucose by using energy from sunlight. This process is called photosynthesis, which means 'making out of light'.

Plants change the glucose into starches and sugars. Starches are used in their roots and seeds, while simple sugars, such as fructose and glucose, appear in the stalks and fruits of plants.



Can you taste the difference between a starch and a sugar?

Materials: a friend, corn, flour, cooked rice, potato, bread, sugar, fresh fruit, tomato, celery, blindfold

1. Blindfold one friend.
2. One at a time, the other friend should offer the food item. If it is a flour, use a teaspoon to spoon the flour into your partner's mouth. If it is a kernel like a rice or corn, or a cube of fruit, put it in the palm of their hand and let them eat it themselves.
3. After each taste your blindfolded partner must guess if it is a sugar or a starch based on the taste.
4. Swap with your partner and repeat the test.

Benefits of a Green Earth

Plants Provide Materials

Plants provide us with many of the ingredients we need to make our medicines

Plants provide us with fuel.

Plants provide us with building materials that humans use.

Plants provide us with many of the materials we use for clothes.

Take a walk around your house or classroom. Can you identify any materials that came from plants?

Make a tree graph similar to the one at left showing some of the materials we use every day that come from plants.

Can you think of any other materials that come from plants?

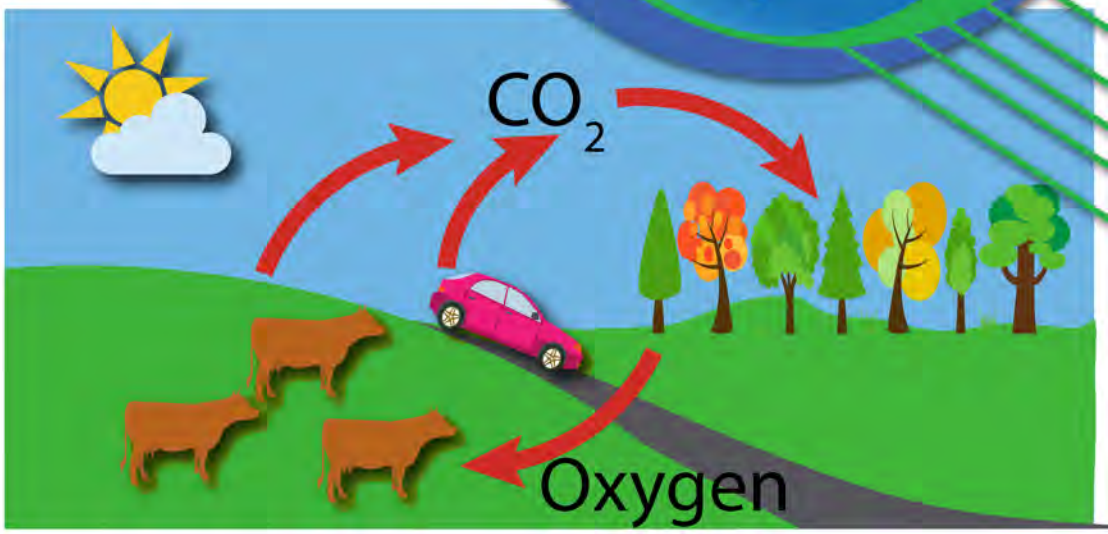
Materials from plants include: perfumes, spices, paper, toothpaste, cloth for clothing and bedding, wood, cork, medicine, soap, shampoo, cosmetics, paint, ink, rubber, latex, ink, gum, dyes, baskets, cotton

Plants Store Carbon

The amount of carbon in the Earth and its atmosphere is constant. Like all elements, it's neither created nor destroyed. Carbon occurs in various forms. In its purest state it's a diamond, or graphite. More commonly, carbon atoms combine with other atoms; for example, a carbon atom binds with two oxygen atoms to create carbon dioxide.

Carbon compounds form the basis of all life on earth. Carbon is found in the tissues of all plants and animals, and both release as carbon dioxide during respiration. During photosynthesis, plants use the carbon from the carbon dioxide in the air to create sugars to fuel their metabolism. Animals, in turn, eat plants to get the energy they need. Then, when the bodies of both plants and animals decompose, they release carbon into the atmosphere.

This movement of carbon through various forms and places is called the Carbon Cycle.



Carbon and the Greenhouse Effect

A greenhouse captures heat from the Sun during the day. Its glass walls trap the Sun's heat, which keeps plants inside the greenhouse warm — even on cold nights. The greenhouse effect works much the same way on Earth. Gases in the atmosphere, such as carbon dioxide, trap heat similar to the glass roof of a greenhouse. These heat-trapping gases are called greenhouse gases.

During the day, the Sun shines through the atmosphere. Earth's surface warms up in the sunlight. At night, Earth's surface cools, releasing heat back into the air. But some of the heat is trapped by the greenhouse gases in the atmosphere. That's what keeps our Earth a warm and cozy 58 degrees Fahrenheit, on average. Let's explore carbon dioxide and the greenhouse effect.

Materials: 2 thermometers, 2 small paper cups, 2 large Ziploc bags, 2 tablets of sodium bicarbonate, sunny area

1. Pick a sunny spot outside.
2. Place a thermometer and a cup of water into one of the plastic bags, being careful to not spill. Add 2 sodium bicarbonate tablets to the water and immediately seal the bag.
3 Place a thermometer and a cup of water into the other plastic bag. Seal the bag.
4. For the next 45 minutes, check the thermometers and record the temperature. every 5 minutes.

How did the sodium bicarbonate tablet (carbon dioxide gas) affect the temperature of the air in the bag?

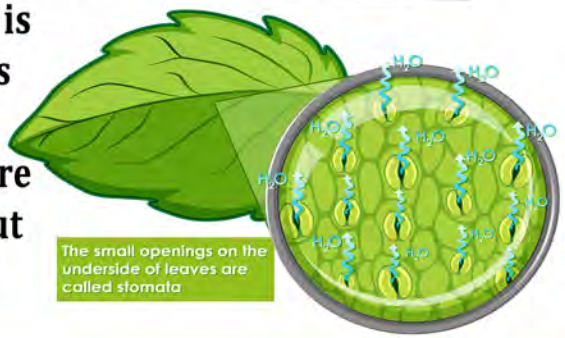
Benefits of a Green Earth

Plants and the Water Cycle

About 10% of the moisture in the atmosphere is released by plants through the process of transpiration .

Just as you release water vapor when you breathe, plants do, too – although the term "transpire" is more appropriate than "breathe." Plants put down roots into the soil to draw water and nutrients up into the stems and leaves. Some of this water is returned to the air by transpiration.

Plant transpiration is pretty much an invisible process. Since the water is evaporating from the leaf surfaces, you don't just go out and see the leaves "breathing". Just because you can't see the water doesn't mean it is not being put into the air, though. During a growing season, a leaf will transpire many times more water than its own weight. An acre of corn gives off about 3,000-4,000 gallons of water each day, and a large oak tree can transpire 40,000 gallons per year.



How much water can a plant lose through transpiration? To find out, you need a Ziploc bag, a plant with leaves or needles and a sunny day.

Place the bag around several leaves of the plant. Seal it tightly. Use tape if necessary. Make sure your plant is in direct sun and wait for an hour. Observe what happened?

This picture shows water vapor transpired from plant leaves after a plastic bag has been tied around the stem for about an hour. If the bag had been wrapped around the soil below it, too, then even more water vapor would have been released, as water also evaporates from the soil.

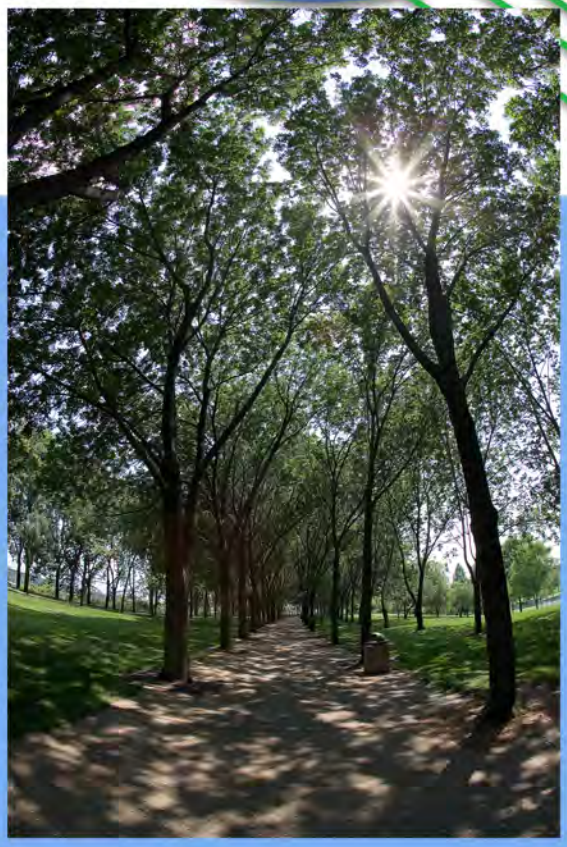
Photo credit: USGS

Plants Help Cool the Environment

Trees and other plants help cool the environments by providing shade and through evapotranspiration. Shaded surfaces, for example, may be 20–45°F cooler than the peak temperatures of unshaded materials. Evapotranspiration, alone or in combination with shading, can help reduce peak summer temperatures by 2–9°F .

The benefits of this cooling effect include:

- Reduced energy use: Trees and vegetation that directly shade buildings decrease demand for air conditioning.
- Reduced pavement maintenance: Tree shade can slow deterioration of street pavement, decreasing the amount of maintenance needed.
- Improved quality of life: Trees and vegetation provide aesthetic value--they're pretty!



Evapotranspiration is the movement of water from the Earth's surface to the atmosphere by evaporation and transpiration.

- **Evaporation is the movement of water to the air from the ground or bodies of water (such as lakes).**
- **Transpiration is a process that happens in plants, in which water is lost through stomata in the leaves and becomes vapor in the air.**

Using Tree Shade to Cool Your Home

Materials: 2 shoe boxes or small cardboard boxes, a lamp with a 100-watt incandescent bulb in it (or the sun), various types of plants in pots, 2 thermometers

1. Take both boxes and place them an equal distance from the lamp so that both of them get the same amount of light hitting them. Alternatively, pick a sunny spot outside and place each box so they are the bright light from the sun..
2. Put a thermometer in each box.
3. Place plants between the lamp (or the sunlight) and one of the boxes, so that the shadows cast by the plants cover most of the entire "house."
4. Turn on the lamp.
5. Measure the air temperature in each box over a period of time. Which box has a higher temperature? Does the temperature change? Subtract or add plants? Do the number of plants change the temperature of the shaded "house?"

What you'll discover! Plants can act as a shades to block sunlight and help us keep our homes cooler. In the summer time a tree with leaves will shade the home, decreasing the amount of sunlight striking the house, keeping it cooler. In the winter, when a tree drops it's leaves, the sunlight is allowed to hit the home to assist in keeping it warm.

Benefits of a Green Earth

Plants Prevent Erosion

Erosion is the process in which water, wind, and other forces wash away rocks and soil from Earth's surface. Why is that a problem? Topsoil is the most fertile soil for plants. Erosion takes away the nutrients usually found in that top layer of soil. Erosion also may wash soil into ponds and other bodies of water and harm those habitats. Erosion is a natural process, but people cause erosion too. They may cut down too many trees, for example.

Plants can help prevent erosion. How?

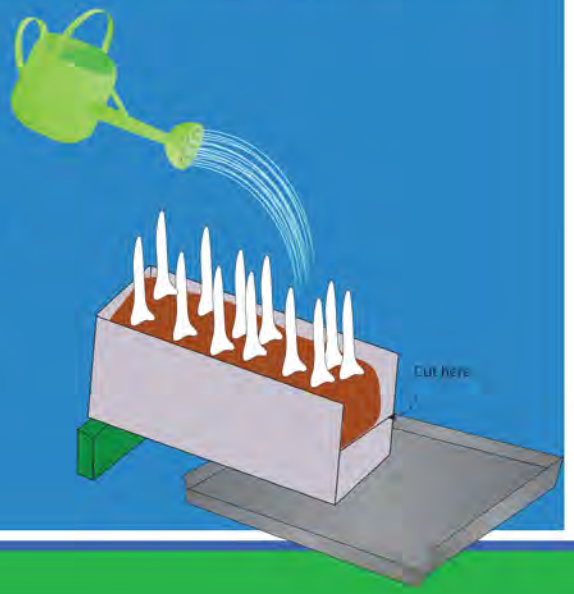
Wind Erosion: Wind easily erodes soil in areas where there is not enough vegetation to protect the top layer. When trees and shrubs are introduced as a method to stop erosion, they might be nicknamed "windbreaks." Windbreaks are natural wind barriers. Serving as windbreaks, wind goes directly over the tall trees, which not only slows down the wind's speed but also protects the soil directly beneath.

Water Erosion: Plants slow down water as it flows over land. That lets the rain soak into the soil, instead of washing it away. Root systems hold soil in place. Plants with fibrous root systems (tangled masses of roots) are better at preventing erosion than plants with tap roots. Fibrous roots can hold soil in place during strong rains. Plant leaves and flowers help too. They soften the impact of raindrops; the soil does not splash around as much. Dead plants help too. Decaying plant matter soaks up rain and prevents erosion.

Can plants slow water erosion?

Materials: Watering can with a "rain" spout water, two aluminum bread pans, dirt, 2 aluminum cake pans, 12-14 plastic forks, something to prop up one edge of each bread pan 1-2 inches high.

1. Fill the two bread pans with soil. Leave a little space at the top so the soil so runoff does not flow over the edges
2. Ideally, you would grow plants in one pan, but that takes time. We'll use plastic forks to stimulate plants. . That takes time! To complete this project more quickly, you will use plastic forks to simulate plants. " Plant" forks in one pan. Distribute the forks around so the area is evenly covered. Plant the forks deep into the soil so the curved areas of the forks with the tines (pointy parts) are in the soil and only the handles stick out.
3. Remove the top half of one short side of each bread pan. You can use a spatula or your hands to make two vertical cuts on one short side of a bread pan where it meets the longer sides, then fold down or remove a little over half of that short side to expose the soil. This will allow soil to flow out of the bread pan when you do your erosion test.
4. Place the empty cake pan on your flat work surface. Place the bread pans on the cake pan with a little space apart and prop up each bread pan on the opposite end of the cut edge. This will allow the water to flow.
5. Use the watering can "rain" 3 cups of water on the pan with the fork plants. Refill your watering can with 3 cups of water and "rain" on the soil-only pan. Did see you any differences in how much soil was eroded? Did the plants slow down the water to slow down erosion?

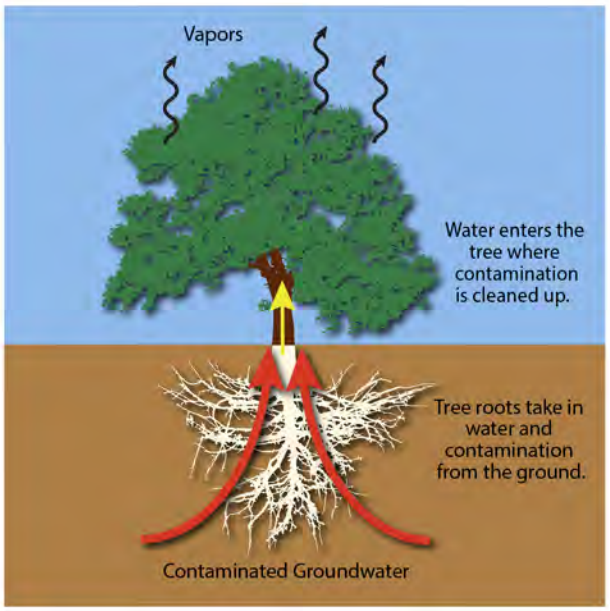


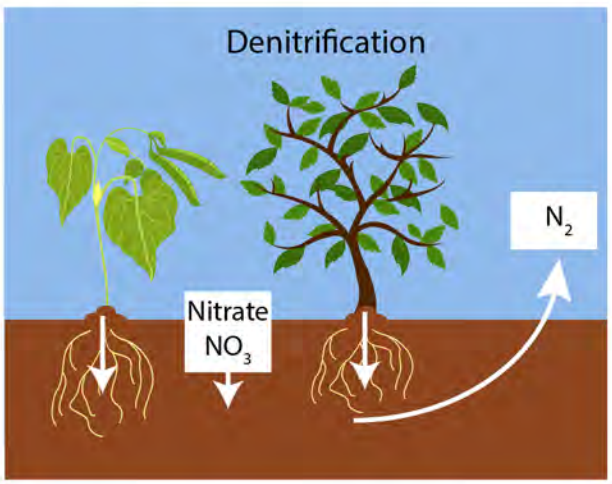
Plants Clean Our Water

Much of our clean water supply comes from rain and snow melt that is filtered through plant life and ends up in streams and the aquifer. Plants help prevent impurities from entering streams, lakes, and ground water in a couple of major ways.

Root systems of trees and other plants keep soils porous and allow water to filter through various layers of soil before entering ground water. Through this process, toxins, nutrients, sediment, and other substances can be filtered from the water.

Leaves and other debris on the forest floor play a role, too. Through the process of denitrification, for example, bacteria in wet forest soils convert nitrates—a nutrient that can lead to harmful algal blooms if too much of it enters bodies of water—into nitrogen gas, releasing it into the air instead of into local streams.





Plant Root Filters

Materials: Three 2-liter soda bottles, nail, hammer, potting soil, seedlings, leaves and vegetation waste, water, plastic cup with a hole cut into the bottom

1. Cut your water bottle at about the five-inch mark with scissors. Remove the bottom of the bottle, which will act as a cup to collect runoff water.
2. Hammer a hole using the nail into the middle of the cap. Screw the cap onto the bottle.
3. Repeat for each bottle.
4. Fill all three bottles with potting soil to about 1 inches from the rim. The first bottle will contain only potting soil.
5. In the second bottle, plant seedlings for the plant of your choice.
6. In the third bottle, place leaves and vegetation waste over the top of the potting soil.
7. Hang the bottom portion of the bottle around the top of the bottle to collect water.
8. Water all three containers every day, recording the difference in color quality in each container's water excess. Which cup had the cleanest water?

Noise Pollution

There is an invisible form of pollution that we don't normally think about. Noise pollution is the word scientists give to sounds that can harm the people and creatures who hear them. You can usually see pollution on the land, in the air, or in water. But noise pollution is invisible - you can't see it, but it is still harmful to those who get in its path.

Noise pollution is not just annoying; it can cause health problems for people and animals. For example, loud noises can cause hearing loss. Noise pollution can also affect sleep, because the noise keeps you up at night. Not getting enough sleep affects your health - it makes you tired and grumpy and less able to concentrate. Some people get headaches and even serious heart problems with constant noise pollution.

Noise pollution also impacts the health and well-being of wildlife. Studies have shown that loud noises cause caterpillars' hearts to beat faster and bluebirds to have fewer chicks. Animals use sound for a variety of reasons, including to navigate, find food, attract mates, and avoid predators. Noise pollution makes it difficult for them to accomplish these tasks, which affects their ability survive.

Trees and Shrubs Reduce Noise Pollution

Plants can greatly reduce unwanted noise inside and outside of buildings.

Sound is an energy that is made up of vibrations, or sound waves, that we can hear. These sound waves are formed by objects vibrating. When they reach our ears, these waves make the delicate skin of the eardrums vibrate.

When sound waves reach an object, one of two things can happen (or both, more commonly). The material the object is made up of either reflects the sound waves back away from the object, or it absorbs the sound waves, thus ending the audible noise.

Have you ever been in a room with nothing in it? Do sounds seem louder? A smooth flat surface reflects sound – it makes it bounce and come back straight at us. Sounds seem sound louder as we have lots of sound waves heading our way. This doesn't happen in a room that has a sofa, carpet and curtains – the soft furnishings are absorbing the sound. Trees and shrubs can also absorb the sound.

Materials: A friend, an open space with trees and/or shrubs, a noisemaker

1. Give your friend a noisemaker. You can use a horn or drum, or you can make our own noisemaker with a pan and a wooden spoon. Have them stand at one end of the space and wait for your instruction to begin making noise.
2. Walk to a place about 50 feet away from your friend with no trees or shrubs between you. Instruct your friend to begin making noise. Remember how loud that sounds is.
3. Walk to a space about 50 feet away, but behind trees or shrubs. Instruct your friend to begin making noise. Does the sound seem louder or softer? Did plants help reduce the sound? Change places with your friend and see if they hear plants reducing sound.

Celebrate Earth Day

The Earth is beautiful. It is the planet we call home. It is the only place in the solar system where humans can survive. So, we must make sure that the Earth stays clean and safe. This is important for us and for future people who will live here.

Every year on April 22nd, we celebrate Earth Day. On that day, we work together to keep our planet green and beautiful!

How did Earth day start? Well, a United States Senator had an idea. Senator Gaylord Nelson wanted to start a holiday to honor planet Earth. He believed that it was important to keep the environment clean. He wanted everyone to be able to enjoy it, even people hundreds of years into the future.

The first Earth Day took place on April 22, 1970. Over 20 million people participated in that first Earth Day! Today, Earth Day is celebrated across the world. Over 193 countries celebrate the day. On Earth Day, people learn more about conservation. They look at ways to fix Earth's problems. Other people spend the day doing things. They clean up litter, plant trees, and help wildlife. They find ways to make the world more beautiful.

Celebrating Earth Day serves as a conscious reminder of how fragile our planet is and how important it is to protect it. We celebrate Earth Day to continue promoting environmental awareness and to remind us that we can protect the earth in our everyday lives as well.

We can make a plan to change and do better, for the sake of the Earth. Earth Day is a great time to start! How will you celebrate Earth Day this year? Try something to help our planet Earth. Working together, we can keep our planet clean and green!

As you read through the passage above, make the following marks on your page.

- Circle powerful words or phrases.
- Underline words or phrases you do not understand.
- Place a question mark near something that makes you think of a question.
- Write an exclamation mark near something that surprises you.
- Draw an arrow where you make a personal connection to certain words or ideas.
- Write your important thoughts in the margins.

What Can I Do?

Make a Seed Ball
Plant a Family Tree

Make a Wildflower Seed Ball

Want to have some fun while making the world a greener place? Make exploding balls of seeds that are an easy way to grow native wildflowers.

Materials for 8-10 seed balls: 1/2 ounce native wildflower seeds, 3 1/2 oz, dry potting soil, 1 1/2 oz. dry clay (powdered red pottery clay works best), water, mixing bowl, cookie sheet, wax paper

1. Line cookie sheet with wax paper.
2. Mix seeds and potting soil together. Add dry clay and mix again.
3. Slowly add water while still mixing the seeds, potting soil, and water into a well-blended paste. When you are able to form a ball of the blended material without it falling apart, you are ready to stop mixing.
4. Mold the mixture into small (~1 inch diameter) balls and place cookie sheet or tray with wax paper. Allow balls to dry in the sun for at least one day.
5. Throw a ball at a patch of dirt and watch it explode! Once it rains (or you water them), they have everything they need to grow.

From NASA Climate Kids

Plant a Family Tree

1. Begin by selecting a location to plant your tree. Check for underground utilities like electric, cable, and gas lines by calling Dig Safe 811. Also check for overhead obstacles such as electrical and phone lines. Remember — your tree will grow! Once you choose a location, take note of the soil, space and sunlight available. Just like all plants, different trees prefer different conditions.
2. Take a family trip to a tree nursery or garden center. Consider finding a tree the same height as you. You'll be able to measure and compare the growth of you and the tree every year.
3. Plant your tree. You can find detailed instructions on proper planting techniques at https://www.treesaregood.org/treeowner/plantingatree
4. Don't forget to name the tree! Once your new tree is in the ground, gather the family around it for a group photo. Make this picture taking an annual event and collect the photos together in an album. As the years pass you'll create a wonderful keepsake to pass down, a true family tree.

Learn to Compost

What Can I Do?

Everyday the rubbish that we throw away pollutes the earth. Thankfully, a lot of our rubbish tends to be from the garden and the kitchen, and these types of natural waste can often be composted.

Compost is a type of fertilizer that is made from rotting plants. It is easy and cheap to make, as all it really requires is vegetable waste. The vegetable waste is broken down by bacteria (germs), and made into compost.

To make a compost heap, you need some space fairly far from anyone who might have a problem with the smell. The bottom corner of a garden, or some other place a distance from the house is a good place. Compost heaps should always be placed on soil or grass. A paved yard or concrete are bad places. The compost heap should not be in a dark or closed corner.

The best base for a compost heap is a layer of sand, bricks or gravel about 1 yard long by 1 yard wide. If using bricks, leave spaces to allow the air to move through. It also allows for the water to run away. The best compost heaps have lots of little spaces inside, to allow air to move around.

Once the first layer is down, one can begin adding the waste. Some good types of waste are:

- Vegetable/fruit peels and scraps
- Spoiled, rotten or moldy fruit
- Cut grass, leaves, straw and sawdust
- Eggshells

Adding meat scraps is a bad idea, as they rot slowly, smell bad and attract rats and other vermin. Human or pet feces is also a very bad idea, as this can transmit disease. Waste from plants that have died of disease is also bad. The disease can spread to the plants that the compost is used with.

When making a compost heap, different types of waste should be layered. A layer of cut grass can be followed by a layer of vegetable waste and table scraps. Watering the compost heap is a good idea, especially in dry areas. The water helps encourage the waste to rot and turn into compost.

In anywhere from 3 to 6 months, the compost will be ready. The compost is ready when it smells like thick earth, with no smell of decay or rot. Of course, if you have been adding waste all this time, the compost will all be at the bottom of the heap, and will have to be dug out. Or you could turn your compost mixture to speed up the process.

The stuff that has not rotted can be used as part of a new compost heap.

Know Invasive Weeds

A weed is simply a plant growing where it is not wanted. By that definition, even a beautiful daisy can be a weed if it's growing in the middle of your lawn.

Non-native plants are a category of weeds that are growing outside of their known native, natural or historic range. A non-native species may be from another continent, another part of the same continent, or even from a different part of the same region. For example, in Idaho there are non-native species that are from other continents (e.g., Russian knapweed), other parts of North America, and different parts of the Rocky Mountains (e.g., Colorado blue spruce). Some plants are introduced intentionally, as ornamentals, livestock forage, windbreaks, or to improve wildlife habitat. Others are transported unknowingly by being mixed with other plants or seeds, or adhered to vehicles, shoes, clothing, livestock, pets, or other mobile items.

Many non-native species do not grow well in their new habitat because they have not adapted to the particular conditions present there. Other introduced species, however, come from similar habitats and are well adapted to the growing conditions found in their new range. Some of these species are also "freed" from the predators, diseases, or close competitors of their native range, and may spread rapidly and displace other vegetation. These plants are considered invasive.

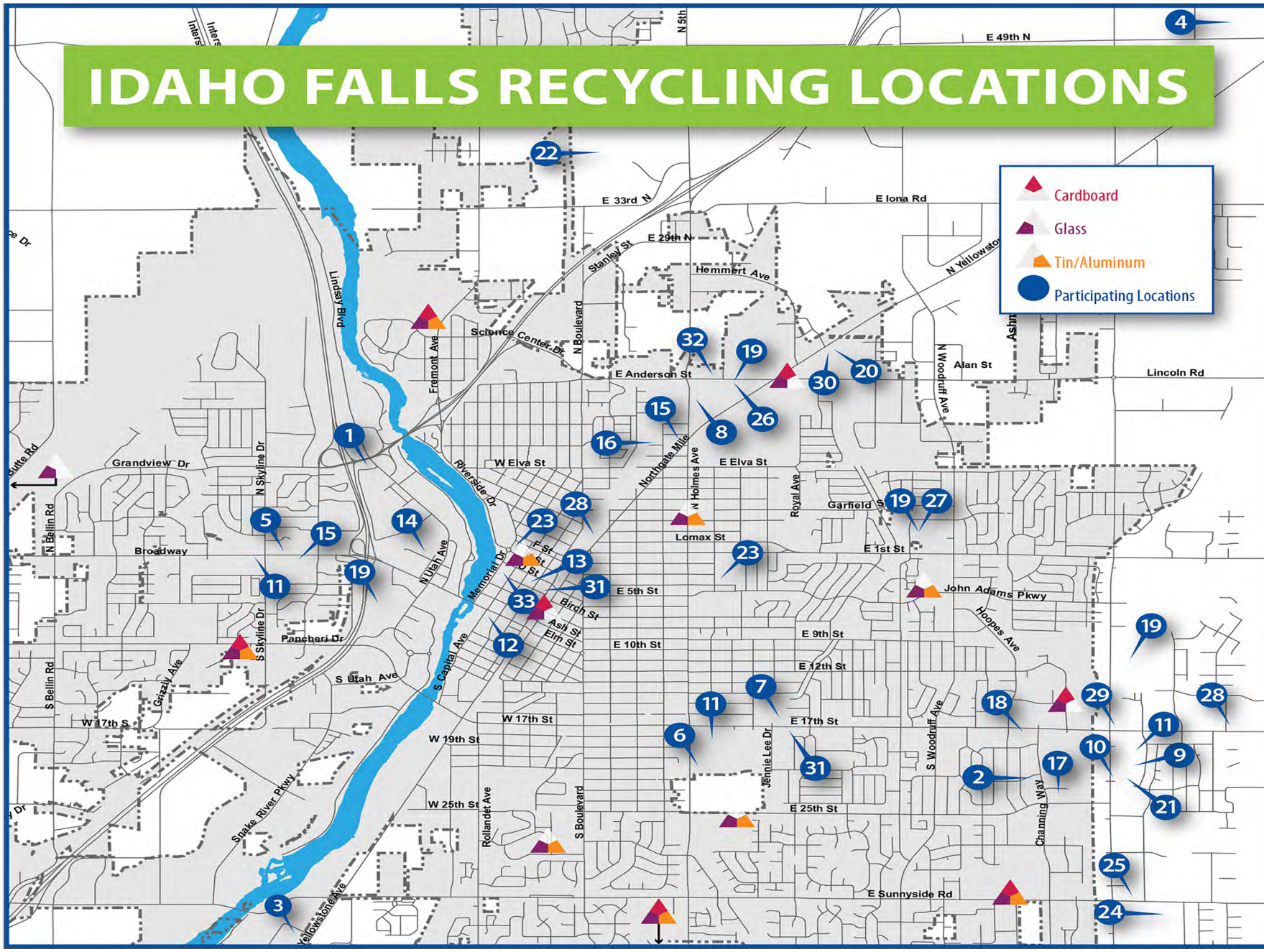
Noxious weeds are invasive plants that have been given special designation through a state or federal law. These laws are designated to protect agricultural production and natural areas by mandating and regulating the control of invasive plants. You can find out more about Idaho noxious weeds at http://idahoweedawareness.com/.


Russian Knapweed

6 WAYS YOU CAN PREVENT THE SPREAD OF INVASIVE SPECIES

1. CLEAN YOUR HIKING AND FISHING GEAR: While you might just be taking a leisurely hike or trying to catch some fish, you could be unknowingly collecting invasive species on your boots or waders and dispersing them as you hike.
2. REMOVE INVASIVE SPECIES FROM YOUR PROPERTY: Get to know Idaho invasives species through resources like www.idahoweedawareness.com or your local County Extension Agent.
3. TALK TO YOUR LOCAL NURSERY WHEN SELECTING PLANTS FOR YOUR GARDEN: Make sure to visit your local nursery and consult with them about what plants are native to your area. Your yard, and our ecosystem, will thank you.
4. IF YOU SEE AN INVASIVE SPECIES, REPORT IT: Go to www.iawcs.org/countycontacts.html to find the contact information for your county's weed control superintendent.
5. PLANT NATIVE SPECIES IN YOUR GARDEN AND YARD: Native species are our best natural defense against invasive species.
6. CHECK YOUR PET'S PAWS WHEN TRAVELING WITH THEM: Just like your boots and clothes, your pet's paws are the perfect carrier for seeds.

IDAHO FALLS RECYCLING LOCATIONS



CURBSIDE RECYCLING PROGRAMS

Western Recycling 529-9908 (Idaho Falls, Ammon, Rigby, and surrounding areas)
westernrecycling.net | Email: curbside@westernrecycling.net
$10/mo. residential – newspapers, magazines, paper, cardboard, #1&2 plastic, aluminum, tin

City of Chubbuck 237-2400
cityofchubbuck.us/streets-sanitation/
$5/month – All paper, cardboard, #1&2 plastic, aluminum, tin

Bingham Curbside Recyclers 681-8597 (Blackfoot, Firth, Snake River area)
$5.50/month – Paper, cardboard, plastic, aluminum, tin

City of Pocatello 234-6192
pocatello.us/395/Recycling-Programs | Email: pocatellorecycles@pocatello.us
Included in City garbage service – paper, newspaper, magazines, cardboard, #1&2 plastic, aluminum, tin

RECYCLING PLASTICS

Due to an international importing ban, most locations do not accept plastics #3-7

WHAT CAN I DO AT HOME?

- Unplug battery chargers or power adaptors, or plug TVs and radios into a power strip and turn off when not in use
- Check air filters and replace as needed
- Install a programmable thermostat (could save about $175/yr)
- Seal outlets and electrical boxes on outside walls with outlet gaskets
- Plant trees or shrubs around windows to block heat in summer and insulate in winter
- Set your water heater to 120°F or less
- Ride a bus or a bike to school, or carpool
- Plan your errands to reduce trips
- Recycle
- Wash only full loads of dishes & clothes
- In winter, open south facing window coverings during the day and close at night
- Install insulation, energy-efficient appliances, windows, doors, or renewable energy systems (see energystar.gov/taxcredits for tax credit information)
- Replace incandescent light bulbs with CFL or LED bulbs and turn off when not in use

BATTERIES (Lead-Acid)

1 Automotive Charging/Starting, *935 Lindsay Blvd*
2 Batteries Plus, *2182 Channing Way*
3 The Battery Guy, *1345 Enterprise St*
4 Start Specialists, *3125 E 49th N*
5 Auto Parts Stores (various, call first), *1562 W Broadway St | 2517 N Holmes Ave*

BATTERIES (Rechargeable)

2 Batteries Plus, *2182 Channing Way*
6 Home Depot, *2075 S Holmes Ave*
7 Lowe's, *925 E 17th St*
9 Staples, *1999 S 25th E*
10 uBreakiFix, *2003 S 25th E D-2*

BOOKS

11 Albertsons (outside bins 3 locations),
1705 W Broadway St | 590 E 17th St | 1901 S 25th E
12 Idaho Falls Public Library, *457 W Broadway St*

BULBS (CFL/Florescent)

2 Batteries Plus, *2182 Channing Way*
6 Home Depot, *2075 S Holmes Ave*
7 Lowe's, *925 E 17th St*

CARDBOARD

13 City of Idaho Falls (see map for 7 outside bin locations)
14 Western Recycling (outside bins), *1020 Denver St*
15 U-Haul, *1091 Northgate Mile | 1545 W Broadway St | 2595 E 17th St Ammon*
16 Pacific Steel and Recycling, *1155 N Higbee Ave*

ELECTRONICS (verify with location accepted electronics)

2 Batteries Plus, *2182 Channing Way*
17 Best Buy, *2404 S 25th E*
18 Cartridge World, *2064 E 17th St #2*
19 ecoATM (4 locations inside kiosks),
500 S Utah Ave | 333 N Woodruff Ave |1555 Northgate Mile | 1201 S 25th E
20 ECyclers, *1976 N Yellowstone Hwy*
8 Office Max/Depot, *1425 Northgate Mile*
9 Staples, *1999 S 25th E*
21 Target, *2171 S 25th E*
10 uBreakiFix, *2003 S 25th E D-2*
16 Pacific Steel and Recycling, *1155 N Higbee Ave*

INK CARTRIDGES/TONER

18 Cartridge World, *2064 E 17th St #2*
20 ECycler, *1976 N Yellowstone Hwys*
8 Office Max/Depot, *1425 Northgate Mile*
6 Home Depot, *2075 S Holmes Ave*
9 Staples, *1999 S 25th E*
21 Target, *2171 S 25th E*

GLASS

13 City of Idaho Falls (see map for 13 outside bin locations)
21 Target, *2171 S 25th E*

HAZARDOUS WASTE

22 Bonneville Cty Transfer Station, May 8 & Sept 11, 2021
2455 Hemmert Ave

PAPER

14 Western Recycling (outside bins), *1020 Denver St*
23 Post Office (customers only inside bin), 875 N Capital Ave | 605 4th St
12 Idaho Falls Public Library (for shredding only), *457 W Broadway St*

PLASTICS (#1 & 2)

1 PET 2 HDPE

14 Western Recycling (outside bins), *1020 Denver St*
21 Target (#'s 1-7), *2171 S 25th E*

PLASTIC BAGS/FILM

11 Albertsons (3 locations inside bins),
1705 W Broadway St | 590 E 17th St | 1901 S 25th E
24 Broulim's (2 locations inside bins), *2730 E Sunnyside Rd*
25 Kohl's, 3175 S 25th E
21 Target, *2171 S 25th E*
26 Fred Meyer, *1555 Northgate Mile*
27 WinCo, *333 N Woodruff Ave*

SCRAP METAL

17 Best Buy (appliances, *2404 S 25th E*)
16 Pacific Steel and Recycling, *1155 N Higbee Ave*
14 Western Recycling, *1020 Denver St*

TIN/ALUMINUM

13 City of Idaho Falls (see map for 9 outside bin locations)
14 Western Recycling (outside bins), *1020 Denver St*
16 Pacific Steel and Recycling, *1155 N Higbee Ave*
21 Target, *2171 S 25th E*

TIRES

28 Big O, *265 Northgate Mile | 3193 E 17th St*
29 Discount Tire, *2523 E 17th St*
30 Fred and Wayne's, *1970 N Yellowstone Hwy*
31 Les Schwab, *210 Constitution Way | 970 E 17th St*
32 Jack's Tire and Oil, *595 E Anderson St | 4490 Andco Dr*

UNUSED/DISCARDED MEDS

33 Bonneville Cty Law Enforcement, *605 N Capital Ave*

CHRISTMAS TREES

13 City of Idaho Falls (seasonal), *308 Constitution Way*

Locations provided as information only. Listing does not indicate endorsement of listed business. Subject to change. All city locations have bins to accept glass bottles for recycling.

Idaho National Laboratory

What is Soil?

Soil is made up of eroded rocks and organic matter (decaying plants and animals) where plants grow. The types of rocks and organisms from the area combined with conditions of the environment determine the type of soil you will find.

There are 5 different soil layers

Plants need certain materials and nutrients in the soil to grow big and strong, so it is very important to keep our soil healthy.

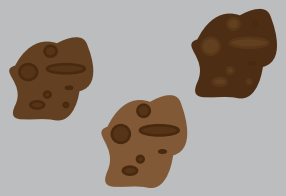
Soil testing can be done to make sure the soil is full of good materials and nutrients and not full of bad material like contaminants.

Groups at Fluor Idaho test soil at the INL Site to do just that!

Become a scientist and test your own soil!

Step 1.
Find 2-3 different locations you can dig some soil (Get your parent's permission first!)

Step 2.
Dig up different soil types. Take some from the top layer and then dig deeper to get layers further down in the ground. Take 1 - 2 handfuls of soil from each location.



Step 3.
Set the different soil types on different pieces of paper. Use your tools and the questions to the right to observe what you see in the soil.

Step 4. (Optional)
Using small paper cups, plant seeds in each type of soil and see which soil the plants grow in best!

Use the following questions to help make your observations about the soils

-What color is the soil?
-Does the soil feel gritty or smooth?
-Is the soil crumbly or clumpy?
-Does the soil have rocks, leaves or sticks in it?
-Can you squish the soil?
-Did you find any contaminants, like trash, in your soil?
-Do you think this soil is good for plants to grow in?

What did you learn from your experiment with the different soils?

What You Will Need

-White paper or card stock

-Small shovel or spoon

-Magnifying Glass

-Tweezers

-Strainer

(Optional)
-Paper Cups
-Plant Seeds

Fluor IDAHO

Come Hang with Our Gang!

Student Challenge

Identify the main idea and supporting details in the paragraphs below.

IDAHO FALLS ZOO AT TAUTPHAUS PARK

www.idahofallszoo.org

African, or black-footed penguins are native to the coast of South Africa and most endangered penguin species. They are carnivores that feed mainly on fish like sardines, anchovies, mackerel, herring and have been known to also eat squid and crustaceans.

Commercial over-fishing, loss of nesting sites, and people collecting their eggs for food has caused the wild African penguin popoulation to drop over 70% in the last 20 years.

Your Idaho Falls Zoo has 17 African penguins and works with other zoos and aquariums, as well as SANCCOB, a conservation organization in Cape Town, to save these magnificent birds from extinction.

Something incredible happened in Idaho Falls while you were staying safe at home during the pandemic!

The Museum of Idaho has undergone an incredible metamorphosis! Just like a caterpillar transforming into a butterfly, the entire makeup of the organism known as the Museum of Idaho has changed! The new exhibit *Animal inside Out* by Body Worlds is a world-class show. It presents animals in a way you've never seen them before or ever will again! The museum's permanent collection has been redesigned in such a way that it brings Idaho Falls past to life with its new *Way Out West* show. An informative and entertaining look from the past to the present of those who called the area home.

Students & teachers can experience these incredible exhibits as part of summer workshops hosted by the Museum of Idaho and ESER (Environmental Surveillance, Education, and Research). Due to ongoing recovery from the Covid-19 Pandemic, the scheduling for the workshops will be a little different this year. For details about workshop topics, times, and registration visit:

museumofidaho.org

Environmental Surveillance, Education, and Research Program
ESER

Join us for Earth Day 2021
Community Food Basket
Happyville Farm

9 am to 3 pm
Saturday, April 24, 2021

Visit the region's only certified organic urban farm growing tasty produce for the hungry families served by the Community Food Basket-Idaho Falls

Demonstrations - Games - Drawings - Snacks
Beekeeping: see how new hives are set up (demonstrations at noon and 2 pm, weather permitting)
Soil Improvement: hands-on help from professional soil scientists
Planting for Pollinators: help support native bees, honey bees, butterflies and more
Xeriscape: learn about low-water, high desert beauty
Seed planting in our kids afterschool program raised beds (and find out how to enroll for spring and summer!)

Bring your cans of food to help support the Community Food Basket
Please help us keep growing safely by observing our social distancing, mask, and group size rules.

600 South Saturn Avenue
Idaho Falls

GROWING • CARING • SHARING
HAPPYVILLE FARM

www.happyvillefarm.org
Follow us on FB: @communityfoodbasketfarm
Follow us on Instagram: @commfoodbasketfarm

Art Contest

You are invited to submit your art to the INL Earth Day contest.

Theme: Earth Day or INL's "creating change for a sustainable future" theme.

Categories: Ages 3-5, 6-10, 11-14, 15-18 and 18 and over, as well as a team category.

Media: Any media including digital, painting, sculpture, textile, etc. Please submit one image of the artwork, limit to one entry per contestant or team of contestants.

Prize: Each entry will be displayed on INL's website and will be eligible to win an entry prize. A winner in each category will be recognized on the website and will be awarded a prize based on alignment with the theme and overall presentation.

How to Enter: Details on how to enter submissions will be released in the coming weeks. Follow INL on Twitter @INL or on Facebook at Idaho National Laboratory to be the first to know when submission has opened!

Sponsored by INL K-12 Education Program, National Reactor Innovation Center and the City of Idaho Falls.

Earth Day

Earth Day

We know that Earth is constantly changing. Some of the changes happen quickly and some of the changes take years to occur.

Essay Contest

BIG QUESTIONS

Changes are natural as Earth's spheres recycle their resources. But some changes occur because of decisions we make. You are the future caretakers of our planet and will have to work together to answer some big questions about how to keep our Earth healthy.

- Why should I care about the Earth's health?
- How does global environmental change affect me?
- Do I have to make different choices in my every day routines?
- Is there anything I can do to help endangered animals and plants?
- How can technology be good for the environment?
- How could we start saving paper at school?
- What are some ways we could save energy?

- Submit your answers to these big questions in an essay of about 250 words. OR
- Write down 10 words related to nature, then compose a poem including these words.

Please submit your entires to alana.jensen@vnsfs.com. Answers will be published on the www.ifearthday.com website. Selected submissions will win a prize. Thank you for working together to make a better future for everyone!

Submissions are due by Saturday, April 25th

Idaho Falls Earth Week Celebration!

Check out these exciting events and activities we have planned for you.

WWW.IFEARTHDAY.COM

April 19-24

Happyville Farm Activites Saturday, April 24

Details on Page 21

Ride Your Bike All Week April 19-24, 2021

Big Questions Essay and Earth Day Art Contest

Details on page 22

Plogging: Collect litter while jogging

Visit the Idaho Falls Zoo Saturday, April 24.

Fun Learning Resources

Details on www.ifearthday.com

Find Us on Social Media #IFEARTHDAY

IdahoFallsEarth DayCelebration

YouTube IdahoFallsEarth DayCelebration

@ifearthday

@ifearthday70