

# Impactful Earth Day Projects



Earth Day is about raising awareness about the importance of protecting our planet and taking action. The first Earth Day came about after a U.S. Senator from Wisconsin, Gaylord Nelson, saw the devastating impact of a massive oil spill in Santa Barbara, California. Not willing to sit on the sidelines anymore, Senator Nelson organized a national “teach in” to educate and inspire people to protect the environment.

Since the first Earth Day was celebrated in 1970, it has generated public support for the Environmental Protection Agency, as well as environmental laws such as the Clean Air Act, the Water Quality Improvement Act, and the Endangered Species Act.

Earth Day should be celebrated every day. We have a long way to go to helping protect and heal our planet. Here are some fun activities children can do that benefits our environment.

## 1. Make reusable bags out of old materials

Even though we are unable to currently use our reusable bags, due to health and safety concerns, these are great projects for kids to do while at home. They can learn how to upcycle materials that might have otherwise been thrown away. This just might spark another creative and inventive ideas about how to reuse materials and find a new use for them.

### -Bags out of old T-shirts

#### 10 Minute No Sew T-Shirt Bag



#### Materials:

- Old T-Shirt
- Scissors
- Chalk or pen to mark lines (if needed)

#### Directions

Step 1: Cut the sleeves off



**Step 2: Cut the neckline area**



**Step 3: Turned your t-shirt inside out. Determine how deep you want the bag to be and draw a straight line.**

**Step 4: Cut fringe to your line. Then turn it back to right side out.**



**Step 5: Tie Fringe**

Take your first pair of fringe and tie it into a knot, then tie two more pairs. Now if you lift your bag you'll see that although the pairs are pulling the bag together, there's a hole between each pair. This next step will close those holes.

In the photo above you see three sets of fringe that have been tied in knots. What I do next is grab one strand from the middle set (the one with the arrow pointing left) and tie it in a knot with one of the strands on the left set. Then I take the other strand from the middle set (the one with the arrow pointing right) and tie it in a knot with one of the strands on the right set.



Take the remaining strand on the right set and tie it to the next set of strands, and so on and so forth until all the strands are tied. Then, wow – you are done.

**Note:** If you do not want the fringe to show, do not turn it right side out in step 4 and keep the fringe in the inside of the bag.



**Video Tutorials:**

[https://www.youtube.com/watch?v= O33Wq\\_uz6Y](https://www.youtube.com/watch?v= O33Wq_uz6Y)

<https://www.youtube.com/watch?v=gdfGHHxzLHw>

<https://www.youtube.com/watch?v=yNdW9MojrXM>

**Another version – sew the bottom close.**

If you have a sewing machine at home, your children might want to try another version where they can sew a straight line at the bottom.

From: <https://thethingswellmake.com/>



**1. Fold the t-shirt in half, and then cut the neck and sleeves off your t-shirt. While you don't really need to fold the t-shirt in half first, I find that it's easier to end up with a perfectly symmetrical bag that way. It's also very quick and easy as you can cut both sleeves off in one cut.**

2. Flip the shirt inside out and fold the shirt so that the sleeve holes line up together at the top, center of the shirt. If your shirt had side seams, they will now be touching in the center of the shirt.



3. Sew the bottom shut. (If you want to attach your pouch in the seam, read my notes below first.) If using a sewing machine, best to use a zigzag stitch for the seam, and would then trim off the excess.

If you want to attach your sleeve pouch to your bag, you can either sew it into the bottom seam or sew it someplace else. Remember, your shirt is inside out, so if you want the cord of the bag to be on the inside of the bag, leave it on the outside.



Another fun idea is to make totes out of an old pair of jeans.

<https://www.youtube.com/watch?v=Nulpilk4WYw>

Or out of plastic bags.

<https://www.youtube.com/watch?v=KUCMcQ1QkZ>

### Health and Safety Note:

A lot of people do not think about washing or wiping down their reusable bags. This can cause cross contamination when using bags for food items.

### A couple tips:

If the bag is washable, have several bags to trade out when shopping. Then, throw them in the wash. T-shirt bags come in handy because they are easy to wash.

Another ideal solution would be to have several bags with their own color code or label so that you can separate your meats from your fruits and vegetables and other items. That would help prevent contamination between washings.

Bags made of other materials can often be washed out by hand and placed outside to dry or wiped down with a disinfectant wipe.

## 2. Make Seed Balls from Recycled Paper



A seed ball is a small item that holds seeds together with a growing medium- in this case, old recycled paper! You bury the seed balls below a layer of dirt for the seeds to grow.

Activity from: <https://buggyandbuddy.com/>

### Materials for Making Seed Balls

- Old paper (worksheets, newspaper, junk mail etc.)
- Seeds
- Bucket or plastic bin for soaking paper
- Blender or food processor
- A few bowls or containers
- Strainer or colander
- Optional: Paper shredder
- Optional: Cookie cutters if you want to make your seed balls into shapes (We used this airplane cookie cutter, but you could also use hearts or any other shape. Remember: Cookie cutters are optional. You can just make balls with your hands.)

### Directions for Making Seed Balls

1. Gather up paper you want to reuse to make your seed balls. You can use things like old newspaper, old worksheets from school, junk mail, paper towels, etc.

2. Tear up your paper into small pieces and place them into a large bin, the smaller the pieces, the better. You can also use a paper shredder if you have one rather than tearing the paper. Kids will love finding old papers to shred, but make sure they know to ask first, if it is recyclable and not important papers.



3. After you've placed all your torn paper into a large bin, fill it with water to soak. Put just enough water in to cover all the paper and mixed it around with our hands. Then, let it soak overnight, so it would blend more easily and quickly, but this length of time isn't necessary. Even just letting it soak as you rip paper would work.



4. Place the torn paper in a blender. Be sure to use an old, cheap or used blender, as blending lots of paper can take its toll on your machine. Don't fill your blender all the way to the top with paper. The paper is sure to clump and get stuck and cause all kinds of blender craziness. Fill it about 1/3 of the way full. That seemed to be the magic number for us. Then fill the blender with water (about 1-2 inches above the paper).

**WARNING:** Never let a child use a blender unless heavily supervised by an adult. An adult should be present at all times or do the blending on their own while the children observe.



5. Blend until you have mushy pulp, somewhat like the consistency of oatmeal. The more it was blended, the better it held together.



6. Place a colander inside a bowl. Pour your pulp mixture into the colander to drain some of the water. Continue with steps 4-5 until you have blended all your soaked paper. Now you have a giant batch of mushy, wet pulp sitting in a colander! Slosh it around in the colander with your hand, getting out the extra water.



7. Pour the contents from the colander into a separate bowl. Don't squeeze all the water out. You'll want it to be wetter than you think. It helps to keep it from falling apart when making your shapes.

8. Now it's time to add your seeds. You can add any seeds you'd like. We chose seeds that were native to our area. Pour the seeds into your pulp. Knead and mix them into the pulp with your hands.



9. If you're just making seed balls (or pancakes) rather than shapes, grab a small handful of the mixture, squeeze out as much water as you can, and roll it into a firm ball. (Making balls or pancakes is much easier for younger children.) Squish it like a pancake. (It'll dry faster.) Place it on a drying rack or stack of newspaper to dry.

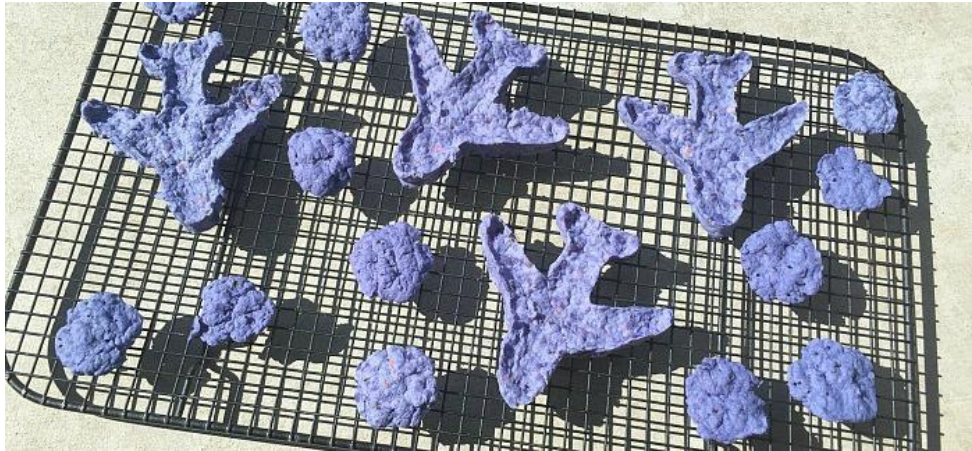
Note: If you do not have seeds at home or a way to purchase seed, you can collect seeds from flowers.

Video: <https://www.youtube.com/watch?v=QTrWOnNqgCM>



If you'll be making your seed balls into shapes, place some of the mixture into cookie cutters. Press the pulp firmly and use paper towels to remove any excess water. (Be sure to save the paper towels for your next batch of seed balls!) Carefully remove them from the cookie cutters and place them on a drying rack or stack of newspaper to dry. If any part breaks off, you can mold it back in place kind of like play dough.

Depending on the size of your seed balls, they can take up to 3 days to completely dry. Placing them in the sun on a hot day will speed up the process!



10. After your seed balls or seed shapes are dry, they're ready to be planted or given as a gift to a loved one.

#### Tips

- Some local nurseries will be willing to give you seeds for free. Be sure to check nurseries or stores in your community.
- Smaller children might find it easier to just make shapes with less intricate spaces, like using a heart or cloud cookie cutter. Or even just making random balls and pancake shapes.

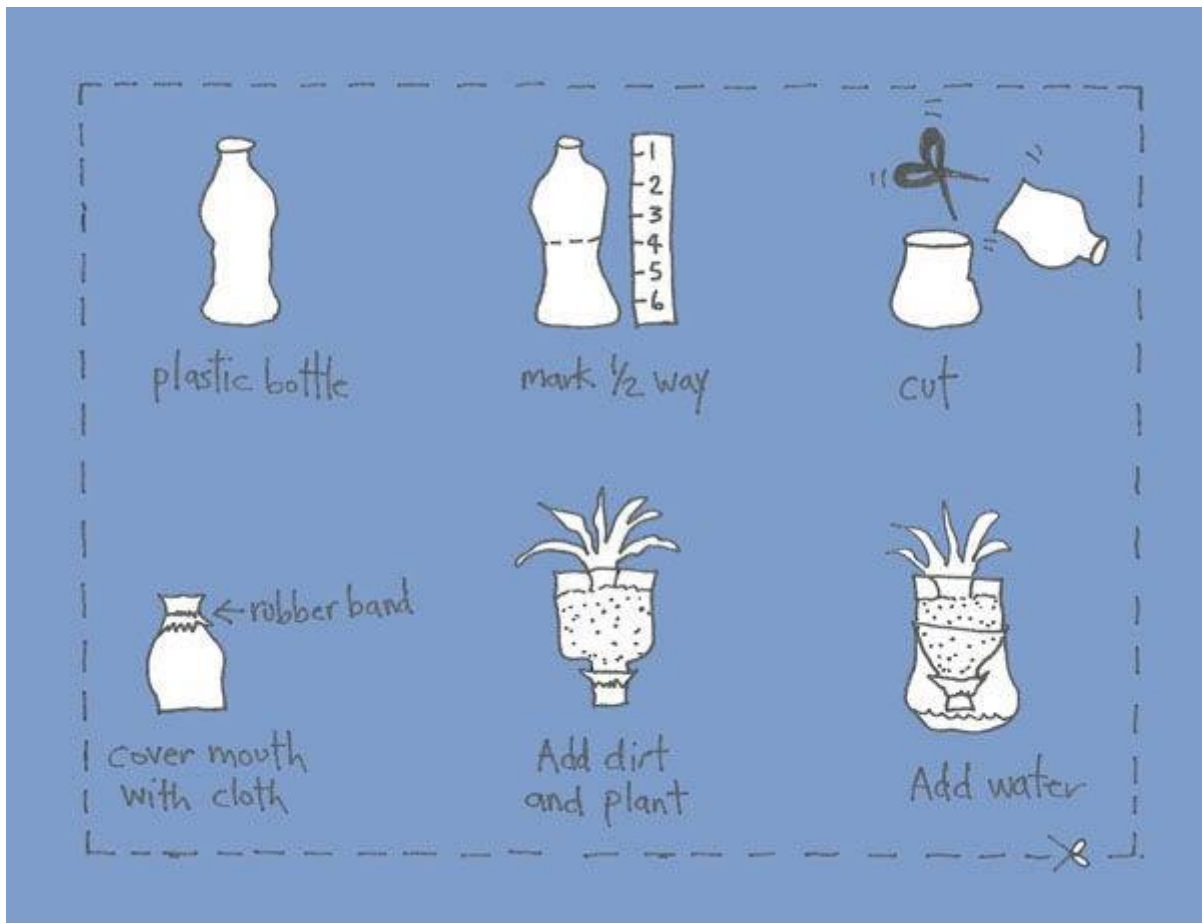
### 3. Plastic Bottle Planters

Reusing a plastic bottle and giving it a new life.

#### Materials:

- Xacto knife
- measuring device (a ruler would qualify)
- plastic bottle
- muslin fabric (about a 2" diameter circle)
- rubber band
- Dirt and a plant cutting to transplant





1. Mark 1/2 way on the bottle (this does not have to be exact, just somewhere close to the middle).
2. Cut the bottle on your mark
3. Take the cap off
4. Take the muslin and cover the mouth of the bottle. Secure the fabric with the rubber band around the neck of the bottle.
5. Take the top half of the bottle and fill it with dirt about half way up.
6. Take a small plant and put it on top of the dirt. Take more dirt and fill in around the edges. Make sure you have about 1" of space above the dirt to the top of the container.
7. Put the top 1/2 of the bottle into the bottom 1/2.

## Alternative design: Plastic Bottle Recycling – Self Watering Planters

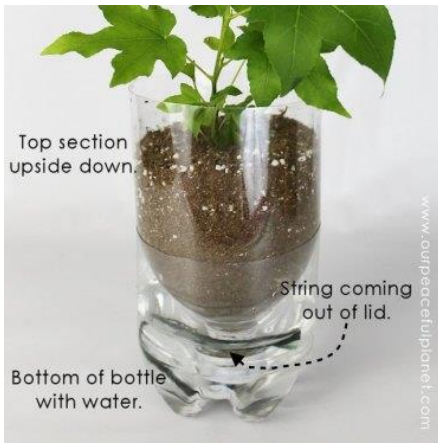


Same steps as above, but instead of cloth, keep the cap and using either a hammer/nail or a drill, carefully punch a hole through the center of the bottle cap.



Cut yourself a piece of yarn (or some other type of thick absorbent cord) about 10 inches long and feed it through the cap hole. If this is difficult, you can use a needle to pull the yarn through the cap. Make a knot on the inside to keep it in place (as shown). Then, attach cap to top half of bottle.





Fill the bottom portion of your bottle with water, and then place the top portion upside down into it. Now, add some potting soil and seeds (or cuttings) to the upside down section.

**IMPORTANT:** You should always water the plant yourself at first as the soil needs to start out damp. After that, it should pull water up the string into the soil on its own.

Make sure the bottle does not dry out of water. When you notice it's getting a little low, you can carefully lift up the top portion and refill the bottom. You want the piece of yarn to always have water to pull up to the plant.

❖ Idea from <https://thegoodlifedesigns.com/>

## Gallery of other creative ways to turn plastic bottles into planters. Have fun with it!



## 4. Eggshell Seed Starters

These biodegradable eggshell planters are perfect for starting seeds!



When the plants get too big for the shells, you can transplant them straight to the soil, shell and all.

### You will need

- Eggshells
- Egg carton
- Potting soil & spoon
- Awl/needle/pin - anything long and sharp
- Knife
- Seeds

### Optional:

Pot & stove  
Spray bottle  
Egg cups/miniature clay pots for display



If you eat eggs, then save the eggshells when you use them. If you don't eat eggs, ask a friend to save the shells and carton for you.

1. Carefully crack the top third of the egg. You can do this by tapping the egg on the edge of a bowl or tapping with a sharp knife.

2. Empty out the eggshells completely.

3. Wash the eggshells out well.

Optional step: If you are concerned about salmonella on the eggshells, put the empty eggshells in a pot of boiling water for a few minutes.

4. Add drainage. Take the empty eggshell, and poke a hole in the very bottom with your sharp object. If you are using a thin needle or pin, widen the hole a bit with a pushpin or small nail.

This hole provides drainage, so the roots of your plant don't drown. You only need to poke one small hole; more than one might crack the shell.



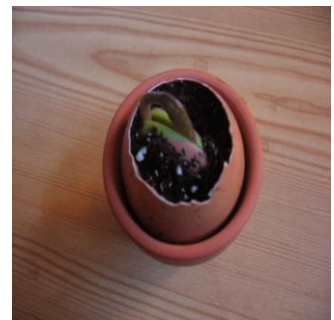
5. Using a small spoon, fill the eggshell with moist potting soil.

Optional: If the potting soil is dry, spray it with water from a spray bottle as you fill the eggshell.



6. Add your seeds. Think about the amount of light you have available in your home and garden, and use seeds that will thrive in these conditions. Plant your seeds according to directions. The seed package will tell you how deep to plant the seeds or can find this information online.

If you want quick results, try beans or cucumbers - they usually sprout in a few days. For bonus points, use seeds that you saved from last year's crop instead of buying seeds. Oh my goodness, seeds are AMAZING!



## 5. DIY Recycling Center for Kids

Create a recycling center with your kids. You can use what bins you already have. If they are not light in color, you could cover bins with paper.

Have your kids create fun designs for your personal recycling center in your home.





## 6. Build Your Own Garden Bug Hotel



Bug hotels are an essential addition to any garden, and particularly a children's garden. There are really two reasons to build a bug hotel. One is to attract and house beneficial insects so that they are available to work in the garden as biological pest control, the other is to have a place for children to compassionately relocate garden pests, like slugs and snails. There's no one way to build a bug hotel, so I've collected some great examples from around the web, along with my own experiences, to inspire your insect inquiries and habitat building.

There are many ways to create a bug hotel. We will be sharing how to make a simple hotel with things easily accessible. Your child might like to research more in depth about beneficial garden bugs and what they need/and are attracted to.



### Materials:

- *A large plastic bottle cut into two cylinders*
- *sticks*
- *pine cones*
- *bark*
- *anything else you can find – bamboo with its holes is great too!*



1) Cut your bottle down to shape.

2) Check what materials you have and arrange by size and texture – we snapped our twigs to make them a little smaller. Had larger and bigger ones. Arranged pinecones.



3) If you plan to hang your bug hotel, loop some garden twine round and then start layering your bug hotel. We did one hotel for on the ground and one for hanging from a tree to see if would attract different creatures.

4) Stuff it to make it nice and firm, so it doesn't get blown about!



# Some very cool bug hotels ....



# INSECTS

## FACTS

- Insects make up about 80% of all the world’s known species. More than 900,000 insect species have been recorded worldwide,<sup>108</sup> and scientists estimate that there are two million insect species yet to be named. To put the relationship between insects and humans in perspective, for every human, there exist 200 million insects.<sup>109</sup> Talk about a bug’s world!
- Tragically, over the past four decades, scientists have observed a 45% decline in the overall insect population.<sup>110</sup> From Puerto Rico to Brazil to Germany, studies show that insect populations, and the species that depend on them, are in steep decline. German scientists report that their insect populations have declined by 75% in less than 30 years.<sup>111</sup>
- Insects have been part of our Earth forever. Dragonflies have been on earth more than 300 million years and grasshoppers existed before the dinosaurs.



## WHY THEY MATTER

- Insects pollinate most of our plants and flowers and without them, we would not have a stable source of food.
- Insects themselves are a source of food for thousands of other species and humans and without them, our global ecosystems would collapse.
- Insects aerate our soil and aid in the process of recycling nutrients for use by other animals including humans.<sup>112</sup>
- Many insect species play a role in keeping other, more harmful insects from destroying and degrading crops.<sup>113</sup>
- In the United States alone, insects contribute at least \$57 billion to the national economy<sup>114</sup> and worldwide, these same services total around \$1.75 trillion.<sup>115</sup>



## THREATS

Climate Change: Of all the species on Earth, insects are the most sensitive and susceptible to the consequences of climate change. Current projections indicate that by the end of the century, nearly half of all habitat for insects would be unsuitable as a result of global warming, creating an “ecological Armageddon.”<sup>116</sup>

Habitat Loss: Agricultural expansion, the proliferation of pesticides, pollution from waste facilities, and commercial development are causing irreversible damage to the habitat of insects.<sup>117</sup> Pesticide Use:

Widespread and indiscriminate use of pesticides and herbicides kills living insects, their offspring, and their habitat. Some have been banned because they also cause cancer and other fatal illnesses in humans!<sup>118</sup>

Invasive species: The introduction of invasive species may lead to significant problems ranging from population declines to habitat destruction and eco-system collapse.<sup>119</sup>



## HOW TO HELP

- Educate your family, friends, and elected officials: The global decline of insects worldwide is nothing to celebrate. We depend on insects and so do millions of other species. Use our resources and facts to convince the people in your lives to learn more about how these amazing, beautiful, scary, and (sometimes) ugly insects are saving our lives!
- Sign our [pesticide pledge](#).
- Natural remedies: Many natural remedies exist to deal with pests in the ecosystem – none of which require pesticides.<sup>120</sup> For instance, both ladybugs and lacewing larvae consume unwanted insects and provide a net benefit to the local ecosystem in the process.
- Use and promote organic products: From food to clothing to garden products that discourage but don't kill bugs, organics avoid the use of pesticides and herbicides and are the way to go to help save insects.
- Habitat Starts at Home: In addition to supporting the protection of public lands, there are steps we can take on our own property. For those with an outdoor garden, creating a compost pile provides fertile habitats for insects. Growing plants that are native to your local ecosystem is also a great step to support and attract the local insect population. <sup>121</sup>
- Check out all of Earth Day Network's [resources](#) to help Protect our Species.

## ADDITIONAL RESOURCES

### ARTICLES/BLOGS/READINGS

The Insect Apocalypse is Here – *The New York Times*

<https://nyti.ms/2GGdi1t>

Because insects are legion, inconspicuous and hard to meaningfully track, the fear that there might be far fewer than before was more felt than documented. People noticed it by canals or in backyards or under streetlights at night — familiar places that had become unfamiliarly empty. The feeling was so common that entomologists developed a shorthand for it, named for the way many people first began to notice that they weren't seeing as many bugs. They called it the windshield phenomenon.

## VIDEOS

What Would Happen if all the Bugs Died? – *Life Noggin*

<https://www.youtube.com/watch?v=VsXu80J31uc>

Bugs may seem like a common annoyance, but losing them would be a giant mistake.

## STORYTELLING

Ted Talk: Mind-Blowing, Magnified Portraits of Insects – *Levon Biss*

<https://www.youtube.com/watch?v=3o655tLnik0>

Applying his knowledge of photography to subjects just five millimeters long, Biss created a process for shooting insects in unbelievable microscopic detail. He shares the resulting portraits -- each comprised of 8- to 10,000 individual shots -- and a story about how inspiration can come from the most unlikely places.

## OTHERS WORKING ON THIS

Save Insects

<https://saveinsects.com/>

Save Insects objective is to showcase importance of insects in the food cycle, highlight at-risk population from loss of habitat and share the effects from global warming on local insect populations.

## REPORTS

The Contribution of Insects to Food Security, Livelihoods and the Environment – *United Nations*

<http://www.fao.org/3/i3264e/i3264e00.pdf>

This report summarizes how the use of insects as food and feed has many environmental, health and social/livelihood benefits.