

## Activity Summary:

Participants will explore what upcycling is, its impact on the environment, and learn about Austin's Zero Waste Goal. Participants will upcycle old t-shirts, sheets or other used fabric in order to create dog toys. Participants will also explore service learning by researching animal shelters and donating toys.

**UNIT:** Generation Zero

**GRADES:** 3<sup>rd</sup> and Up

### MATERIALS:

- Two old/unwanted t-shirts **OR** old sheet, fabric etc.
- Scissors

**TIME REQUIRED:** 35 minutes

### OBJECTIVES:

Students will be able to:

- Participate in service learning
- Learn about upcycling
- Discuss what happens to our trash

### TEKS CORE CONCEPTS:

- 3<sup>rd</sup>: 1B
- 4th: 1B
- 5<sup>th</sup>: 1B
- 6th: 1B
- 7th: 1B
- 8th: 1B, 11B
- High School:
  - Aquatic Science: 1B
  - Biology: 1B
  - Environmental Systems: 1B, 5F
  - Art 1: 2A, 3C

## Introduction (10 minutes)

1. Start by locating an old shirt to be upcycled. Ask, *“What would happen to an old t-shirt if we were to throw it in the trash?”*

- It would start in the trashcan, and then get taken to the curb or put in a dumpster, the garbage truck would pick it up, and then it would be brought to the **landfill**.

2. What is a **landfill**?

- A hole that is dug under the ground where trash gets dumped. These structures are built with multiple liners to protect the environment. The trash that is dumped into the landfill does not decompose (break down), it stays under the ground isolated from groundwater, rain, and air.

3. Can you think of other uses for this old t-shirt?

- Hand-me-down clothes, donate, reuse, DIY projects etc.
- By reusing an old t-shirt and not sending it to the landfill, you are helping the City of Austin achieve its Zero Waste Goal.

4. Discuss the City of Austin's Zero Waste Goal. The city has a goal to divert 90% of our waste from the landfill by the year 2040. This means that the city is asking Austinites to watch what they put in the trash and reduce, as a city, the amount in the trash by 90%.

- Ask, *“How old will you be in the year 2040?”*
- Ask, *“How does upcycling relate to the City of Austin's Zero Waste Goal?”*
- Take time to discuss.

5. *Where are some other places for our trash or waste? What are some other uses for our trash or waste?* Think about utilizing recycling bins, compost bins, reusing materials, donating etc. These are all great ways to help reduce what we put in our trashcan!

6. Today we are going to be **upcycling** old t-shirts and turning them into dog toys for animals in a local shelter.

- What is **upcycling**? **Upcycling** is a form of creative reuse. It is the act of taking an unwanted item and giving it a new purpose and use. Your unwanted shirt or fabric will be transformed into an item that benefits shelter animals.

7. At the end of this activity, you will have created a pet toy. You will also have the opportunity to research an animal shelter in your area where you can donate the toy(s) you have created. By creating researching and donating, you are participating in **service learning**.

*What is service learning?*

- **Service learning** is learning that allows you to learn about the topic while simultaneously getting hands on experience, and contributing to your community.

### **Dog Toys (20 minutes)**

1. You will need:

- Two t-shirts (t-shirts that you no longer need or want) for this activity. If you do not have t-shirts, you can use old sheets, cloth etc.
- One pair of scissors
- A clean flat surface to work on

2. Cut 2-3-inch wide slits at the base of your shirts. See **Figure 1** in *Additional Resources* for a visual

3. Rip along the slits to create straight strips

4. Put all of the strips together and tie a knot at the top of all the strips

5. Braid or twist the strips together

6. When there are about two inches left on the strips tie a knot at the bottom to complete the project.

See **Figure 1** in *Additional Resources* for a visual

### **Closing (5 minutes)**

1. Encourage youth to research and find a local animal shelter that would be interested in receiving this type of donation. Check in with the shelter to learn their hours of operation, and their methods for properly donating.

- *Extension: Field trip to the animal shelter to donate!*

2. Review the term upcycling and talk about waste reduction.

3. Review the City's Zero Waste Goal and how this activity relates to it.

4. Review what service learning is and how this project relates to it.

**Additional Resources:**

**Figure 1.** Steps to make a dog toy

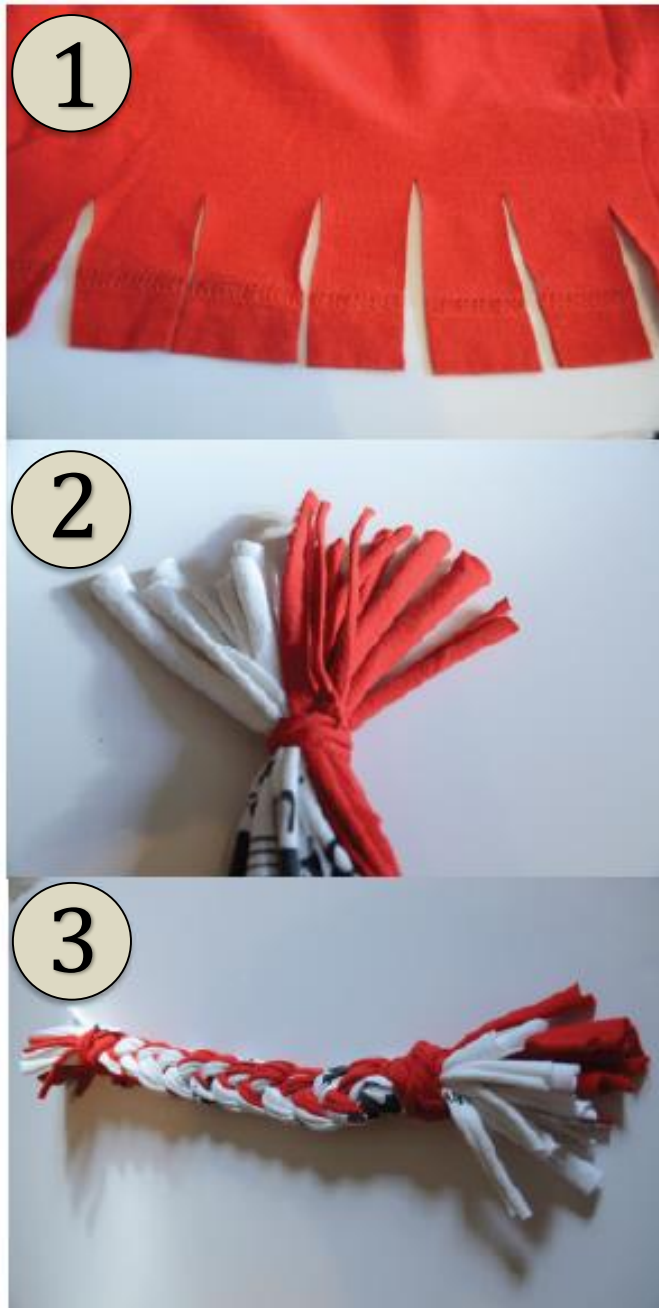


Photo Credit Austin Humane Society

**Background Information:**

**What is service learning?** Service learning is the combination of learning goals and community service. It is a way for learners to get hands on experience in what they are learning while contributing to the common good (Vanderbilt). Some benefits of service learning include fostering community engagement, student application of classroom to the real world, improved quality in understanding what is being learned, personal growth and outcomes, and career development.

**What is upcycling?** Upcycling is taking an item that no longer has a use and giving it a new purpose or function. You likely have heard of the common saying, someone's trash is someone else's treasure, and this perfectly describes upcycling! With a little bit of imagination and creativity you can give an item a new life. For upcycling to take place you do not need to buy a new item, the idea is to take something you already have or purchase it second hand. Some benefits of upcycling include reducing waste, saving money, and fostering creativity.

**What is recycling? Is it different than upcycling?** Recycling is saving waste materials by keeping them out of the trash, and allowing them to be reprocessed. Reprocessing waste material involves breaking them down and then reforming them into new products. Recyclable materials are collected from businesses and residences, then they are sold to manufactures for processing and reuse in a new generation of products. Upcycling is **not** the same as recycling because upcycling takes items and gives them a new purpose. For example, when a metal can is recycled it goes to the recycling center, is stripped down to its bones, into aluminum. From there a metal can will likely be turned into another metal can, or other various aluminum items. When you upcycle a metal can like in this activity you take it and use it in its original form, and give it a new purpose, like a metal can as a planter.

**City of Austin's Zero Waste Goal:** The City of Austin has a Zero Waste Goal, that by the year 2040 they want the city to keep 90% of materials of discarded materials out of the landfill. This means finding a way to reduce what we put in the trash by 90%! To reach this goal the City of Austin is encouraging Austinites to recycle, and compost as much as possible. This also allows for residents to get creative and allows for collaboration among entities. For examples, old lightbulbs do not belong in the recycling or the compost. What do we do with them? For any questions check out the city of Austin's "What Do I Do with Tool" to find out where challenging items can go to avoid the landfill. This also opens up the opportunity for second hand shopping and upcycling. But getting creative and upcycling an item you help give new life to an item and reduce waste.