

## **STEM #TCDProjectChallenge Instructions:**

1. Read through the Lesson Plan
2. Complete the challenge
3. Fill out the Lesson Worksheet
4. Take a picture during some part of your Challenge
5. Email your challenge picture and a picture of the front and back of your completed Lesson Worksheet to [pmaddy@ksu.edu](mailto:pmaddy@ksu.edu) or text it to 785-877-7262.
6. Challenge pictures will be posted (not the worksheet pictures) on our respective county 4-H Facebook pages and our Twin Creeks District Facebook page.
7. Your name will be entered into a drawing for a project prize that will be given at our 2020 Achievement Banquet next fall.
8. Each time you complete a challenge, your name will be entered into a drawing for that project area.
9. You can complete any and all challenges, even if you are not enrolled in 4-H.
10. Challenges are divided into three age groups -- 7 to 9, 10 to 13, and 14 and up.
11. **Pictures of your challenge and lesson worksheets are due by the last day of the month, November 30, 2019.**
12. Printed copies of the challenge can be picked up at your local Extension Office.
13. Do not hesitate to contact me if you have any questions ([pmaddy@ksu.edu](mailto:pmaddy@ksu.edu) or 785-877-5755 or 785-877-7262). I am excited to see your pictures and what you learn through these challenges.



# #TCDProjectChallenge

**STEM:** *Reduce, Reuse, Recycle*  
*America Recycles Day*  
*(Self-Determined Project)*

Age 7 to 9:  
*Complete #1 to 5*

Age 10 to 13:  
*Complete #1 to 6*

Age 14 & up:  
*Complete #1 to 7*

**Time:** *15 Minutes/Day*

**Goal:** *Identify and recycle items in your home trash. Cut amount of trash in your home by recycling.*

**Self-Evaluation BEFORE:** Using the rating scale below, answer the following statements:

- 1 = not at all
- 2 = a little
- 3 = a lot.

**I know how to...**

Identify materials that can be recycled in my community  
.....1 - 2 - 3

Sort recycled materials.....1 - 2 - 3

Complete a bar graph.....1 - 2 - 3

**Instructions:**

1. Check out your local recycling center to see what types of items can be recycled in your area. Star or highlight those materials in the attached charts.
2. Weigh your family’s trash from your bedrooms, living room, and kitchen, etc. Illustrate that weight with a bar in the first column of the Day 1 chart.
3. Sort the recyclable items in your trash according to each type of recyclable material.
4. Weigh each container of recyclable material and illustrate each weight with a bar in the appropriate column of the chart.
5. Weigh your trash bag again. Illustrate the weight with a bar in the second column of the Day 1 chart. How many pounds of trash did you just save from the local landfill (pounds of total trash minus pounds of recyclable items)? \_\_\_\_\_
6. For ages 10 to 13, repeat for 3 days.
7. For ages 14+, repeat for 5 days.
8. For Ages 10 to 13 and 14 & up, complete the Totals chart by adding the amount of pounds of trash for the 3 or 5 days and graphing it on the last bar chart to see the impact that your family could have on the amount of trash that goes to the landfill if you practiced recycling. See if you are able to cut your trash by 75%!

**Ingredients/Materials:**

*Bathroom Scale*

*6 Containers for Recycled Materials (can be boxes, bins, totes, etc.)*

**Did You Know?**

*Did you know the average American produces almost 5 pounds of waste every single day! That means in just 10 days, we’re creating a whole 50 pound feed sack’s weight of waste! The good news? Statistics show 75% of that waste is actually recyclable (epa.gov). Can you cut your trash by 75% by recycling? Take the challenge above to find out!*

***Celebrate America Recycles Day on November 15th!***

**STEM:** America Recycles Day

**Life Skills Learned:** (Check all that apply.)

- Positive Self-Concept
- Inquiring Mind
- Concern for Community
- Sound Decision-Making
- Healthy Interpersonal Relationships

**Leadership** (teaching someone what you have learned — Int./Sr. levels.)

- Taught lesson to other 4-Hers
- Taught lesson to classmates
- Other \_\_\_\_\_

**Self-Evaluation AFTER:** Using the rating scale below, answer the following statements:

- 1 = not at all
- 2 = a little
- 3 = a lot.

**I know how to...**

- Identify materials that can be recycled in my community  
.....1 - 2 - 3
- Sort recycled materials.....1 - 2 - 3
- Complete a bar graph.....1 - 2 - 3

# #TCDProjectChallenge

**Evaluation:** (express your experience)

Why is recycling important in our communities? \_\_\_\_\_

What types of items can be recycled at your local center? \_\_\_\_\_

How will you encourage others to recycle in your community? \_\_\_\_\_

**Citizenship:** (Community service examples of sharing what you learned.):

- Create easy-to-read flyers showing how to recycle in your community.
- Organize a gently-used coat or toy drive to donate to families in your community and help keep coats and toys from the landfill.
- Other \_\_\_\_\_

(Picture of your participation in the challenge.)

\_\_\_\_\_ *Member's Signature*

\_\_\_\_\_ *Date*

**Resources:**

*Adapted from:*  
*Recycling, Green Awareness,*  
*Blackford County 4-H,*  
*Pennsylvania*

**Patsy L. Maddy, 4-H Youth Development Agent**  
Jenilee Godsey, Youth Ag - Alyssa Rippe-May, Livestock/Horticulture  
Keith VanSlike, Ag & Natural Resources - Karen Shepard, FCS  
Stacy Brown, Director & FCS



Kansas State University is committed to making its services, activities and programs accessible to all participants. If you have special requirements due to a physical, vision, or hearing disability, contact Twin Creeks Extension District, 785-877-5755.

**Kansas State University Agricultural Experiment Station and Cooperative Extension Service**  
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# America Recycles - Day 1

<b>Pounds</b>	12													
	11													
	10													
	9													
	8													
	7													
	6													
	5													
	4													
	3													
	2													
	1													
	0													
		<b>Recyclable Materials</b>	<b>Total Trash</b>	<b>Total Trash after Recycling</b>		<b>Glass</b>	<b>Aluminum</b>	<b>Paper</b>	<b>Newspaper</b>	<b>Tin Cans</b>	<b>Plastic</b>	<b>Magazines</b>	<b>Electronics</b>	

**Use a different color for each column to easily see the amount of trash that can be recycled each day.**

## America Recycles - Day 2

<b>Pounds</b>	12													
	11													
	10													
	9													
	8													
	7													
	6													
	5													
	4													
	3													
	2													
	1													
	0													
		<b>Recyclable Materials</b>	<b>Total Trash</b>	<b>Total Trash after Recycling</b>		<b>Glass</b>	<b>Aluminum</b>	<b>Paper</b>	<b>Newspaper</b>	<b>Tin Cans</b>	<b>Plastic</b>	<b>Magazines</b>	<b>Electronics</b>	

**Use a different color for each column to easily see the amount of trash that can be recycled each day.**

## America Recycles - Day 3

<b>Pounds</b>	12												
	11												
	10												
	9												
	8												
	7												
	6												
	5												
	4												
	3												
	2												
	1												
	0												
		<b>Recyclable Materials</b>	<b>Total Trash</b>	<b>Total Trash after Recycling</b>		<b>Glass</b>	<b>Aluminum</b>	<b>Paper</b>	<b>Newspaper</b>	<b>Tin Cans</b>	<b>Plastic</b>	<b>Magazines</b>	<b>Electronics</b>

**Use a different color for each column to easily see the amount of trash that can be recycled each day.**

## America Recycles - Day 4

Pounds	12													
	11													
	10													
	9													
	8													
	7													
	6													
	5													
	4													
	3													
	2													
	1													
	0													
	Recyclable Materials	Total Trash	Total Trash after Recycling		Glass	Aluminum	Paper	Newspaper	Tin Cans	Plastic	Magazines	Electronics		

**Use a different color for each column to easily see the amount of trash that can be recycled each day.**

## America Recycles - Day 5

<b>Pounds</b>	12												
	11												
	10												
	9												
	8												
	7												
	6												
	5												
	4												
	3												
	2												
	1												
	0												
		<b>Recyclable Materials</b>	<b>Total Trash</b>	<b>Total Trash after Recycling</b>		<b>Glass</b>	<b>Aluminum</b>	<b>Paper</b>	<b>Newspaper</b>	<b>Tin Cans</b>	<b>Plastic</b>	<b>Magazines</b>	<b>Electronics</b>

**Use a different color for each column to easily see the amount of trash that can be recycled each day.**



# America Recycles - Totals

<b>Pounds</b>	52												
	48												
	44												
	40												
	36												
	32												
	28												
	24												
	20												
	16												
	12												
	8												
	4												
		<b>Recyclable Materials</b>	<b>Total Trash</b>	<b>Total Trash after Recycling</b>		<b>Glass</b>	<b>Aluminum</b>	<b>Paper</b>	<b>Newspaper</b>	<b>Tin Cans</b>	<b>Plastic</b>	<b>Magazines</b>	<b>Electronics</b>

**Use a different color for each column to easily see the amount of trash that can be recycled each day.**