Reduce, Reuse, Recycle
Budgeting a Good, Clean Time

In this lesson students will:

★ Plan an itinerary for a family of four within a given budget.
★ Observe the amounts of trash and waste that vendors and patrons create.
★ Discover whether materials used at the State Fair are just being thrown in the trash, or if waste is recycled.
★ Design innovative ways to help the Fair become greener!
★ Create a work of art from trash that is collected at the Fair.

Before You Go
Waste and Recycling Discussion
★ Watch this video about waste and recycling from PBSkids.
★ As a class, peruse this waste and recycling website for kids.
  * What items might the food vendors at the Fair use?
  * How much waste is likely to be generated in a given day?
  * Where do you think all that waste will go?

Everyone loves the wonderful food and drinks at the State Fair, but have you ever wondered what that means for the landfill? Investigate how much trash is produced by one vendor at the State Fair, then come up with innovative ideas to reduce waste and help the Fair go green!

Grade Five STEM Standards
★ Math TEKS: 5.1(A), 5.1(B), 5.1(C), 5.3(K), 5.10(E), 5.10(F)
★ Science TEKS: 5.1(B), 5.2(D), 5.2(F)
★ Art TEKS: 5.1(B), 5.2(C), 5.4(B)
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Family Budget Discussion
★ There are four members in the Johnson family: Mr. Johnson, Mrs. Johnson, 12-year-old Benjamin, and 10-year-old Kiara
★ The Johnson family has a budget of $250 to spend at the State Fair of Texas.
★ Mr. Johnson plans to spend less than half of the family budget on food.
★ Everyone wants to try some of the Big Tex Choice Award State Fair Foods.
★ Benjamin loves corn dogs, turkey legs, and funnel cake.
★ Kiara has food allergies, and cannot eat peanuts.
★ Mrs. Johnson is diabetic.
★ Each member of the family wants to attend at least three or four shows.
★ Can you help the Johnson family plan an itinerary for their visit to the State Fair of Texas?
★ Research ticket prices for the State Fair of Texas.
★ Learn more about healthy food options for diabetics and people with food allergies.
★ [http://www.eatingwell.com/nutrition_health/nutrition_news_information/guide_to_food_allergies_and_special_eating_needs](http://www.eatingwell.com/nutrition_health/nutrition_news_information/guide_to_food_allergies_and_special_eating_needs)

Plan Your Route.
★ Start at the Texas Star and make your way to the food vendor you’d like to observe.

Optional Materials to Bring
★ Smart Phone or Tablet
★ Pencil & Notepad
★ A Device to Tell Time
★ A Bag to Collect Reusable Materials (see Art Connection)

While You’re There
The goal of your visit is to locate trash and recycling receptacles, and observe how much waste is produced in a given amount of time.

WHERE TO PUT IT?
★ Observe your area of choice.
★ Take notes or pictures where waste receptacles are located.
★ Are they trash only?
★ Are there recycle bins?
★ How far do people have to walk to reach them?

LET THE WASTE FALL WHERE IT MAY
★ Choose one vendor to observe.
★ Decide how long you will observe, and time yourself.
★ Watch the vendor and take notes or pictures of the materials used to serve foods.
★ Are there cups? What are they made of?
★ Is food being served in paper boats, plates, bowls, or something else?
★ If people dispose of their waste in your area, observe what they do with it.
**TEACHER**

**GRADE: Five STEM**

**THE JOHNSON FAMILY BUDGET**
- Remember the Johnson Family?
  - Time to figure out their budget!
- Determine what kinds of foods each member of the Johnson family could eat, where the food vendors are located, and the cost of each item.
- Remember: Mr. Johnson plans to spend less than half of the family budget on food.
- Everyone wants to try some of the Big Tex Choice Award State Fair Foods.
- Benjamin loves corn dogs, turkey legs, and funnel cake.
- Kiara has food allergies, and cannot eat peanuts.
- Mrs. Johnson is diabetic.
- ...so you have to keep all that in mind as you shop!

**ARTS CONNECTION**
- Use the bag you brought to collect recycled materials.
- Don't pick up anything that still contains any sort of food or liquid.
- Keep in mind that you will be creating artwork from this, so think like an artist.
- Wash your hands afterwards... you are picking up trash, after all!

**FAIR FOOD**

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**After the Fair**

When you return to class following your State Fair visit, you will:

- Report what you discovered to the class.
- Class discussion: How have you seen places such as gas stations encourage the use of reusable cups, and employ other waste reduction strategies?
- In teams, make recommendations as to what the State Fair could do to encourage less waste and more recycling.
- Write formal proposals with your ideas, to be sent to State Fair officials.

When you return to class following your State Fair visit, you will also:

- Create an itinerary and a budget for the Johnson family, based on your visit to the State Fair of Texas.
- How should they spend their money?
- What additional expenses should the family consider?
- Extension: If Mr. Johnson used his credit card at the Fair and spent more than $250, what could he do to balance his budget?
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Arts Connection: One Man’s Trash...
Make trash into visual treasure! A number of artists create beautiful and amazing art works from trash and other recycled materials. It’s a fantastic way to reduce the amount of waste that society creates, and it raises awareness of our wastefulness.

Before You Go
★ Here is a [link](#) to some wonderful art works that have been created from discarded materials.
★ Although these are a bit advanced, it is important to understand how artists think outside the box and really push their creativity.

★ This [video](#) discusses a children’s museum exhibition that was focused on trash as art and the importance of reusing and recycling materials into something beautiful or useful.

While You’re There
As you conduct your research, take a bag with you and collect some of the trash you find at the Fair. See the main part of the lesson for more instructions.

After the Fair
When you return to the classroom, it’s time to create your own art from trash!
★ Think back to some of the examples you saw in class.
★ Think about things such as unity and balance as you create your work.
★ Remember, the sky’s the limit, so use your creativity and think outside the box!
★ When you have finished, share your creation with your class, and talk about the different objects you used.