Objectives:
Students develop an understanding that discarded materials can be reused.

Prerequisites:
At least a week before this lesson, assign your students homework—to bring a paper towel or toilet paper roll and any old or discarded fabric to use for their puppet. Paper towel rolls will need to be cut in half by the teacher. Students should safely gather materials to avoid any injuries when going through their discarded materials. Students should also wash their hands after handling old or discarded items.

Note: Mention to your students that they must only do this under adult supervision.

Duration:
45 minutes

Materials:
- Colored Markers
- Staplers/Tape
- Scissors
- Materials Students Bring to Class
  » Empty paper towel or toilet paper rolls
  » Old fabric (clothing, sheets, curtains, etc.)
  » Additional reusable materials as needed

Introduction:
As getting rid of our waste becomes more expensive, reducing the amount of waste we generate becomes more important than ever. Not only does this protect the environment and human health, it also saves money and valuable resources. With this information, teachers can help students understand what waste is and how they can reduce the amount of waste they generate by reusing materials. Students will reuse old or discarded materials to create a puppet. The puppets can be used for a class play or used as an environmental message.
Procedure:
1. Prior to starting the lesson, teachers should cut any paper towel rolls in half so that all students have the same size.
2. Have each student draw faces on their toilet paper roll or paper towel half and decorate the outside using the colored markers.
3. Cut the fabric into 2- to 6-inch strips using the scissors. Teachers should staple the pieces of cloth around the top rim of the cylindrical roll to resemble the hair on the puppet. Teachers may also cut the fabric in the shape of a skirt or pants for the bottom rim of the cylindrical roll.
4. As an alternative, teachers can have students tape the pieces of fabric on their roll.
5. Teachers should engage the students to use critical thinking by asking them where their waste would end up if they were to throw it in the trash. Teachers can also ask the students to reiterate the key terms and discuss how their puppets demonstrate the concept of reuse.
6. Enjoy!

Other Ideas:
Instead of making puppets, the students can also use old or discarded materials to create:
- **The Class Menagerie** — Collect an assortment of junk such as tubes, boxes, egg cartons, yogurt cups, plastic, pantyhose, and so on. The children can make animals for a class zoo. How about oatmeal-carton penguins, shoe-box whales, or egg-carton alligators?
- **Berry Baskets** — Plastic mesh berry baskets make fine containers. Provide yarn or ribbon that the children can weave through the mesh. Add handles made of leather, pipe cleaners, plastic six pack can holders, or string.
- **Foam Picture Frames** — Plastic foam trays make attractive picture frames. Wash and dry them, then decorate the edges with glitter, sequins, rick-rack, or lace. Attach one or more pictures to the middle. Attach a picture loop to the back so that the picture can hang. Plastic six-pack can holders can also be used.

Glossary:
- **Waste** — any unwanted, discarded, or abandoned material or product that is no longer needed or used for its intended purpose
- **Reuse** — using something again and again until it can’t be used anymore. Reuse keeps a product in its original form, while recycling turns the product’s material into a new resource for manufacturing

Applicable TEKS:
- **2nd Grade** — §112.13.b. 1A,B; 2A,B.
- **3rd Grade** — §112.14.b. 1A,B; 2A,B.
- **4th Grade** — §112.15.b. 1A,B; 2A,B.
- **5th Grade** — §112.16.b. 1A,B; 2A,B.

References:
- Take Care of Texas – Fun Facts. takecareoftexas.org/kids/fun-facts
- PBS Kids – Reduce, Reuse, Recycle Song. www.youtube.com/watch?v=AsBOoCDXLH4&feature=youtu.be

Note: Some of these references are from external sources and may not reflect the views of the TCEQ. Before using a reference, please verify that it is appropriate for your students.