

### Objective

Students will be able to repurpose common trash materials through upcycling 'waste' plastics into arts and crafts.

### Introduction

Of all the plastics produced and used in the United States, only 6% are recycled (Greenpeace, 2022) while the rest are either landfilled, incinerated, or end up in our environments. Upcycling plastic is one way of prolonging the life of the material, preventing plastic debris from making it to the ocean, and creating a fun craft.

### Set up

Review the following crafts and supplies needed. Collect the trash items listed below or ask students to save and bring them from home. If using found debris, be sure to wash them before conducting these activities.

- For additional upcycling ideas by debris item, visit the [University of North Carolina Wilmington Traveling Through Trash page](#) or the [NOAA Marine Debris Program Education Newsletter archives](#).

## 1. Animal Planter

### Supplies

- 1-Liter plastic bottle or ½-Liter water bottles (Recommended bottles with 5 "legs") (1 bottle = 1 planter)
- Scissors or precision knife
- Acrylic paint/spray paint (glossy)
- Gravel
- Black and colored permanent markers
- Potting soil
- Small plan



Photo Credits:

CASG

### Procedure

1. Wash and dry plastic bottle
2. Use the precision knife or scissors to cut out ears (and optional tail) at desired height above the base of the bottle. Try to center ears above two legs of the base
3. Paint container with base color using acrylic/spray paint and let dry
4. Draw or paint animal face/design and let dry
5. Put layer of gravel in bottom halfway up the planter (gravel allows for drainage)
6. Put down an inch-thick layer of dirt over the gravel
7. Place plant gently in the center of the planter then fill in remaining space with dirt (make sure roots are covered)
8. Keep planter somewhere it can get direct or indirect sunlight (depending on your plant) and water as needed

### 2. Snowflake Ornaments

#### Supplies

- Plastic bottles (Preferably in clear or blue) (1 bottle = 1 snowflake)
- Acrylic paint in white and blue
- Precision knife or scissors
- 10-14mm jump rings (Depending on ribbon width) - *Optional*
- Pliers
- Needle/hole puncher
- Ribbon/yarn/string

#### Procedures

1. Wash and dry plastic bottles
2. Trace circumference of bottle a ½inch from the bottom
3. Using a precision knife or scissors, cut off the bottom (You can save the top half for other projects like the Self Watering Planter - #4 below)
4. Make a small hole in the side of one of the "legs" of the bottle bottom
5. Put a jump ring through the hole (Don't put ribbon through until the end)
6. Paint/draw snowflake design on bottle bottom and let dry
7. String ribbon through jump ring and knot



*Photo Credits: CASG*

### 3. Trash Tinsel

#### Supplies

- Snack bags
- Scissors
- Tape or twist ties
- String

#### Procedure

1. Rinse out your bag with soapy water and let dry. Then lay it out flat, cutting off the bottom seam.
2. Cut the bag open along the vertical seam, spreading it out.
3. Cut the bag into rectangles. Different sized pieces will give you different lengths for your tassels (which you can see in the example photo below).
4. Fold the smaller pieces in half and cut from the edge, stopping an inch or so before the fold.
5. Unfold your piece, and flip it so that the printed side faces up. Roll up your tassel, so that there are two sides of fringe.
6. Twist from the center of your tassel (the part that is un-cut) and fold in half. Using tape or twist ties, secure the top, ideally creating a small loop.
7. Using string, create a garland with your tassels to decorate with!



#### Note:

Depending on how many bags you have or how much tinsel you'd like to create, you can experiment with lots of different fringe lengths, widths, and even colors.

### 4. Self-Watering Planter

#### Supplies

- 2 Plastic water bottles per planter
- Precision knife
- Cotton string/yarn/shoe laces (1-1.5 feet)
- Potting soil
- Seeds/small plants
- Rocks (optional)

#### Procedures

1. Cut the bottles into two pieces each. One bottle should be cut about 2/3 to the bottom, and one should be cut about 2/3 to the top.
2. Use precision knife to punch hole into center of bottle cap and thread string through bottle cap
3. Put the cap and string onto the shorter top section and nest it upside-down into the longer bottom section, with the string hanging into the bottom.
4. Fill the bottom section with water and your rocks (Fill base of bottle 1/3 of the way with water), and fill the top section with your soil and plant, leaving about an inch from top.
5. Secure the top of your terrarium! Take the remaining top section and fit it over your plant and soil. If it isn't fitting, try cutting a small slit in the bottom and wiggling it on (this might take some adjusting, depending on your bottles).



Photo Credits: NOAA

### 5. Build-A-Cactus

#### Supplies

- Green ½-Liter plastic bottles
- Various colors of ½-Liter (or less) plastic bottles
- Precision knife or scissors
- Planter
- Gravel/scrap paper
- String lights or battery candle (optional)



*Photo Credit: CASG*

#### Procedure

1. Cut tops off of green bottles to desired size
2. Cut out holes or small triangular flaps in sides of green bottle using precision knife (Bend out to imitate spines)
3. Shape tops of colored bottles into flowers
4. Cut out a hole in the base to fit flower into
5. Fill planter with gravel or scrap paper
6. Gently position cactus sculpture into planter
7. Bonus: add string lights/battery candle under cactus

**Note:** This activity can be a little difficult. Consider assembling individual components ahead of time and let kids assemble their own cacti (I.e. cut out flowers or at least outline flowers and cut various different cacti sizes with spines done)