



MAKE YOUR OWN Bottle Cap Mural!

SONIA KETTLER'S GUIDE

ECO-FRIENDLY!

A GIRL SCOUT GOLD AWARD PROJECT



Introduction

Plastic Bottle Cap Murals are a great way to share the beauty of art and raise awareness for the plastic pollution crisis at the same time!

Why are they so great?

- Use a majority of recycled plastic that would otherwise go to the landfill
- Brings color and beauty into any area
- Has a call to action built in because viewers are shown how abundant plastic bottle caps are



Making an Impact

Most people in our communities do not think about the effects that their wastefulness and consumerism have on our planet. Every single day, humans buy single-use plastic products and then throw them into the garbage. These products often end up in landfills and are not properly cared for, leading to plastic pollution. Single-use plastic waste is one of the largest contributors to pollution in our oceans and habitats. In order for people to stop contributing to this issue, they need to be made aware of the impacts they are having. Plastic that we use every day, such as drinks in plastic bottles, takes millions of years to biodegrade and is occupying many ecosystems that had not faced this type of pollution before. Many times, picking up a single-use plastic product from the store or out of our cupboard requires zero thought, and we are not aware of the packaging itself and how it carries on after we have disposed of it. Single-use plastic is very accessible, and humans continue to consume it because it is so normalized to be in every product in America. If our communities are made aware of how consumerism and the use of single-use plastic products impact our future, then we can make a change for the better.



STEP BY STEP GUIDE



Materials

- Plastic bottle caps
- Plywood panels
- Liquid nail / wood glue
- Paint and paint brushes
- Wood frame
- Installation tools

My Pricing

- Free!
- 2 4x8' panels was \$72
- Only \$2 per tube
- Donated
- Scrap wood / Donated
- Borrowed

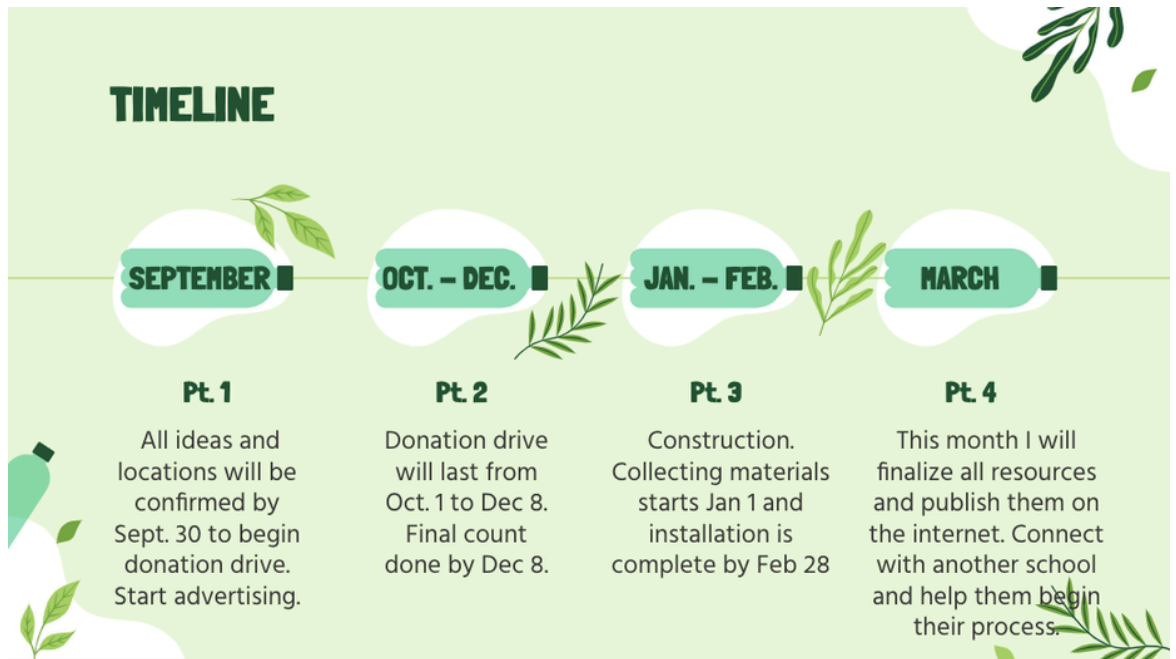




1

Getting Started

- Think about possible installation locations, which will help you decide the size of plywood needed
- Decide how big of an outreach you will have in your donation campaign which
- Set a timeline for your entire process
 - Here is my timeline as an example:





2

Create Posters

- Make sure to include locations, dates, and if there are any specifications
 - Some examples!



Begin Your Drive

- Set up your bins
- *I wrapped mine in yellow paper to give all 4 bins the same distinct look!*



3

Advertise and wait!

- Make use of social media and local news outputs such as Facebook and Next door
- Watch as your bins full up!





4

Collect

- During the last 3 weeks, I sent out another poster for one final push

Girl Scout Gold Award Project

PLASTIC BOTTLE CAP DRIVE



All shapes colors and sizes!

DONATE AT

- Woodland Park Jr./Sr. High School
- 151 Panther Way
- Donation bin in **CLOCKTOWER ENTRYWAY**
- Donation bins in the halls
- During school hours

DONATE AT

- Woodland Park Rampart Library
- 218 E Midland Avenue
- Donation bin in **FRONT ENTRYWAY**
- During open hours

- After your drive time ends (mine was 2 months) collect the bins and all the bottle caps in them!
- I loaded them in my car and took them home for step 5





5

Wash and Sanitize

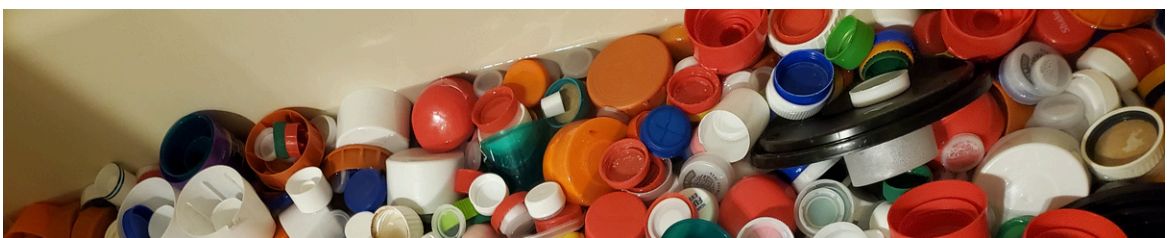
- I poured out half the bottle caps into the bath tub



- Fill up the tub with hot water
- Let it soak for at least 30 min in just water
- Add 2-3 tablespoons (cap fulls) of liquid bleach into the bath



- Let sit for at least 1 hour periodically stirring the bottle caps so that they are evenly soaked
- Drain the tub and fill it with clean water, stir the bottle caps to rinse them and repeat 1-2 times
- REPEAT UNTIL ALL BOTTLE CAPS ARE CLEAN







6

Dry

- I used a snow shove to unload the bottle caps out of the bath tub and onto a sheet for them to dry



Sort and Count



- I invited a friend over to help sort the piles of freshly washed bottle caps



- Sort the bottle caps by color and any other specifications



- I used laundry baskets and spare cardboard boxes before moving them into recycled printer paper boxes from my high school





- I found that it was a lot more tedious than I expected to count all the bottle caps and so I calculated a final estimation with the fished mural (7,000) but never got a manual count



7

Move Supplies to Work Space

- Find a workspace to both store the materials and work on the final product it
- Ask for help moving all the bottle caps!



- I was able to use an empty classroom in my high school



Buy Wood Panels



- I purchased two 4x8 pieces of plywood from my local hardware store, and it ended up being around \$72
- However, I only ended up using one 4x8' panel for the mural



8

Sketch and Set-up

- Using a pencil sketch on the general design
- *Remember to keep the design simple and blocky as it is hard to get much detail with bottle caps!*
- I stood the panel up after the initial sketch to begin painting



Paint!

- Don't forget a drop cloth and to wash out your brushes when you're done
- I got all my paint from donations from local schools and leftovers I had
- I used house/wall paint and just simple acrylic – nothing fancy

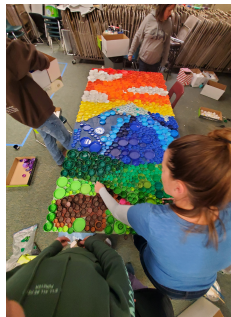




9

Arrange the Bottle Caps

- Assemble a group to help out sorting through the best bottle caps and arranging them on the board
- I layed the painted panel onto some desks and had 6-8 people working on filling it up with bottle caps





10

Glue!

- Use liquid nail and caulking guns
- It took 5 (6 to be safe) tubes of liquid nail to glue down all the bottle caps on one 4x8' panel
- We had 3 caulking guns going at a time, with 2 people working in one section together
- This process went by way quicker than expected and only took about 3-4 hours maximum





- LET MURAL SIT FLAT OVERNIGHT (24 HOURS MIN) BEFORE INSTALLING



11

Prep the Space / Gather Tools

- Reflect on the previously decided installation location, and prepare the wall by clearing any other hangings
 - This was my space before the mural was installed



- TOOLS
 - Hammer drill with a concrete drill bit
 - 6 screws > 3"
 - 6 plastic screw anchors
 - Safety goggles, gloves, and earwear
 - Level
 - Base boards
 - Ladder
 - Extra liquid nail and caulking gun



Screw Holes

- First mark the center of your wall space on the wall and on the board so that it lines up
- Drill 6 holes - 1 per corner and 2 center on either sides - through the wood and any bottle caps over the spot
- Lift the board (its heavy!) onto a stack of base wood pieces so that it is propped up to where you are ready to screw it in
- Ensure that the mural is center and level
- Using a hammer drill go through the already drilled holes and into the concrete - use your muscles!



Install Mural

- Remove the mural from the wall
- Insert plastic screw anchors into all 6 of the holes and replace the mural
- Stick a screw and a washer into one of the top 2 holes
- Have teammates watch to ensure that the screw is going into the screw anchor and drill!
- Repeat for all the holes moving down the board
- Ensure the the mural is level, secure, and flat against the wall
- Remove the supporting base boards that were originally propping up the mural
- Step back and ensure everything is in place!





13

Re-Gluing

- *During the installation of my mural, a large number of the bottom bottle caps that were resting on the baseboards popped off, and a few others farther up as well*
- *After the mural was installed my team and I took 20-30 min to check and reglue any fallen bottle caps*





15

Share Your Mural!

- Be proud of the work you and your team have put in!
- Post about it, tell your friends, share your work!

My Finished Product



16

Pass it On

- Through this entire process you will be sure to meet and inspire many other artists in your area
- Share your experience and this helpful How-To-Guide so that others can make their very own plastic bottle cap mural



- Sonia Kettler's Girl Scout Gold Award 2026



BUILD YOUR OWN PLASTIC BOTTLE CAP MURAL