

# OCEAN BLUE CREW

## Newsletter

VOL. 1, ISSUE 4

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### Introduction

Ahoy matey! It's the Ocean Blue Crew from the Clearwater Marine Aquarium here to give you some nautical knowledge about our incredible ocean. To kick off the new year and the new decade, we want to talk about a big problem we've been seeing in all of the world's waters — trash. It's thought that there is around **5,250,000,000,000** (5.25 trillion) pieces of plastic trash in the world's oceans. This plastic pollution can affect every living thing. In this issue, the Ocean Blue Crew will talk with you about CMA's Trash to Toys contest, what happens to trash, and how you can help prevent more trash ending up in the ocean.

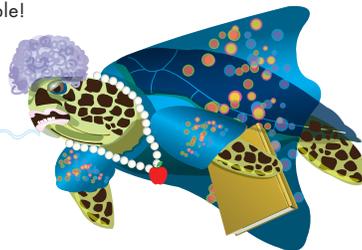


CAPTAIN'S LOG

One way that we here at CMA want to get you involved is our annual Trash to Toys contest. We want to invite your class to participate! The reason we do Trash to Toys is most importantly to encourage recycling and celebrate Earth Day. Trash to Toys also allows us to give our resident dolphins — Winter, Hope, PJ, and Nick — a new enrichment toy. Enrichment toys help to stimulate their brains just like your toys and puzzles do for you. It is very exciting when they get to see something new! Your toys will be shown to the dolphins either poolside or at their underwater windows.

Now Teacher Turtle is going to give you some insider knowledge about what our dolphins seem to prefer and how to make the best toy possible!

### Teacher Turtle

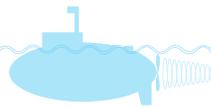


Scientists have done a lot of research to learn more about how dolphins see, and I want to share this information to help you make the best toys possible. Dolphins have great eyesight both above and below the water, so no matter if your toy is shown poolside or at the underwater viewing windows, your toys will be seen! It has been found that dolphins are colorblind, but they can see greyscale or contrast. What this means is dolphins can see the differences between colors. Black and white have the greatest contrast. To get creative with your toy you can make your toys as brightly colored as you like or use animal shapes. Our dolphins also seem to prefer moving pieces.

Some other helpful hints from our education staff and animal care providers include not making your toy too big so that it can move around easily. They also recommend doing a strong shake test to make sure everything is attached nice and tight. If your toy does not pass our final shake test, it will not make it to the final round. Please remember that your toy must be made out of recycled materials.

To participate in trash to toys, teachers must follow instructions on the trash to toys flyer and submit an intent to participate by Monday, March 23, 2020. Trash to Toys submissions start February 17, 2020 and the last day to drop them off is April 13, 2020 by making arrangements with the Manager of Education Programs. The winning toy will be announced on Earth Day (April 22nd). The winning class will receive a free off-site program in your class during the month of May 2020. For more information, go to our website [SeeWinter.com](http://SeeWinter.com).

Start brainstorming! We cannot wait to see your awesome toys here at CMA. Observation Otter will now talk with you about why it is important to reuse and recycle.



### Captain Squid Squiddley



### Observation Otter

Our experiment will teach us about what happens to different trash items when they go to the landfill.

#### You Will Need:

- A Planter or Container
- Soil
- A Piece of Paper Crumpled Up (Recycled is best)
- A Plastic Lid
- A Banana Peel (Any other fruit waste like an apple core will also work)
- Optional: Water

#### Directions:

1. Fill the container with soil to make your landfill. Bury the paper, plastic lid, and banana peel in the soil so that they are all evenly covered. These are your trash items in the landfill.
2. Bring your container outside where it will be affected by the elements (eg. direct sun, rain, and low temperatures). If it does not rain, water the container.
3. Ideally, leave it outside for about a week. The longer it is outside, the better you will see the effects of the experiment.
4. When the time is up, carefully dig up your trash items. What happened to each one? Why is it important to recycle plastic?

Both the paper and the banana peel are biodegradable and if you left them in your landfill for long enough, they would break down into natural material like soil. The plastic is not made of natural materials and can take hundreds of years to break down. As the plastics break down, it will become smaller pieces of plastic called microplastic. This is why we want to reduce the amount of plastic that goes to landfills by recycling plastics, or choosing to refuse the use of plastics.



## CHEF SHARK

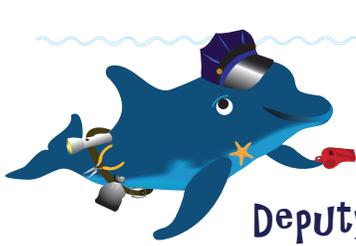
Chef Shark here! I'm here to share a recipe that is great if you don't like the crust on your sandwiches. Instead of throwing those crusts away, here is a great recipe to use them up! Preventing food waste helps to lessen how much your family is spending on food and how much waste goes to the landfill. By making a snack out of the bread crusts, you are learning to re-use items you have and reduce waste.

### Directions:

1. With adult supervision, preheat the oven to 350° F.
2. Cut the crusts into 1½ inch pieces and place into a large bowl.
3. Drizzle the crusts with the melted butter and toss with your hand or tongs to distribute it as evenly as possible.
4. Sprinkle the crusts with the cinnamon and 1½ Tbsp. of sugar. Mix through evenly.
5. Spread crusts over the baking sheet in a flat layer.
6. Bake for 5-8 minutes or until golden brown and crunchy.
7. While hot, sprinkle the extra 1 Tbsp. of sugar over top.

### You Will Need:

- 3 C Bread Crusts or about 3 handfuls (stale crusts are best)
- 1 Tbsp. Butter, melted
- 1 ½ Tbsp. Sugar
- 1 Tbsp. Sugar, separate
- ½ tsp Cinnamon
- An Adult
- A Knife
- A Large Bowl
- Opt. Tongs
- A Baking Sheet



## Deputy DOLPHIN

Howdy partners! Dolphin Deputy here to tell you more about how YOU can help prevent more plastic from ending up in the ocean. The best way to prevent more single use plastic trash is to not use it. This means using products like reusable bags, reusable or no straws, reusable water bottles, and even bringing your own containers to a restaurant for leftovers instead of using their Styrofoam containers.

Another great way to help prevent trash from ending up in the ocean is to help pick up any litter you see. We do recommend using gloves or a grabber for your safety. Many groups including CMA host cleanups throughout the year, but you don't need to wait for one of these events to pick up litter.

If you do use single use plastics, make sure that you dispose of it properly—this means recycling it if possible. When recycling, you want to make sure you know what your recycling center can handle and clean out your items before placing them in the bins. Not every county recycling program accepts all plastics labeled as recyclable. With the help of an adult, you can find out online what you can and cannot recycle at home. You can also try to reuse these products if it's safe to do so. This includes making them into something else like Creative Crab will show you next with an awesome craft!



## Creative Crab

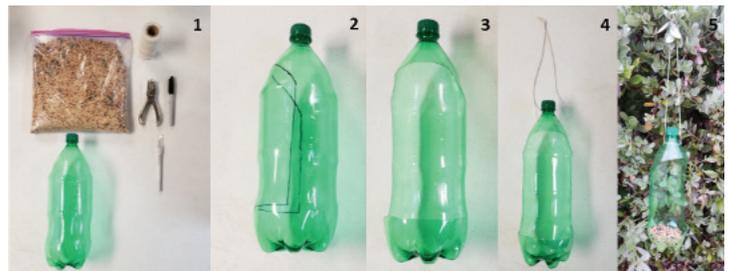
### You Will Need:

- Washed Plastic Soda Bottle
- Permanent Marker
- Scissors or a Craft Knife
- String or Twine
- Bird Seed
- An Adult
- A Hole Punch (optional)

## SODA BOTTLE BIRD FEEDER

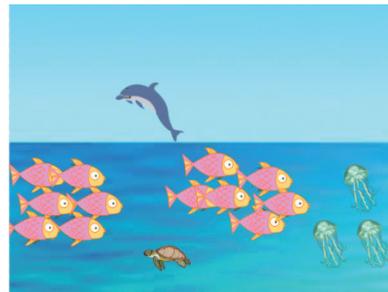
With spring just around the corner, a bird feeder is a great idea to hang outside. This soda bottle bird feeder is a great way to feed your local birds and reuse a single use plastic bottle.

1. Gather all your needed materials.
2. Using the permanent marker, draw a large opening in the bottle.
3. With the help of an adult, cut out the opening. If the edges seem really rough or sharp, you can use sand paper to smooth them out.
4. At the base of the neck of the bottle, poke/cut 2 holes across from one another wide enough to fit your string.
5. Put the string or twine through the holes and tie a knot in the top. Make sure the loop above the bottle is long enough to fit over the branch you want to hang it from.
6. Add birdseed in the base of the soda bottle.
7. Hang outside and watch the birds come to feed.



## Playtime PELICAN

Find the differences between the two images below!  
Is one of these better than the other?  
Why?



## CAPTAIN SQUID SQUIDDLEY

Arr me mateys!

I want to let you know about some upcoming events here on dry land at the aquarium! Besides **Trash to Toys**, some other great events coming up are **Be Winter's Valentine** February 4-14 and **Marine Science Fest** February 15-17.

For more information about all of these events, check out our website

[SeeWinter.com](http://SeeWinter.com)



CLEARWATER MARINE AQUARIUM