

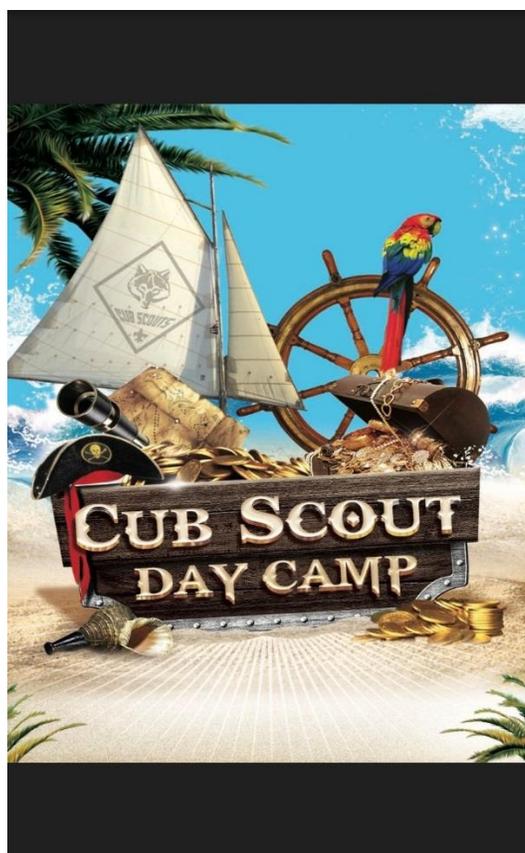
Harford District
2018 Cub Scout Day Camp
June 25-29, 2018

Cub Buccaneers, Adventures on the High Seas

Ka-boom!

Chemical Reactions

Web II: Adventures in Science



Station Volunteer's Guide

Volunteers do not necessarily have the time;
They have the heart. And YOU are the heart of our camp.
Thank you!



Please, please read this guide!

What is being covered at most stations is important so that the scouts earn the correct achievements toward rank or advancement. Some stations are JUST for fun, though and are not designed for earning anything.

HOW YOU present the material is not set in stone and can be presented in any manner that best suits you, as LONG AS THE REQUIREMENTS ARE MET FOR THE SCOUT.

.....in other words...

If you find a better way to accomplish the requirements or if the method we have outlined doesn't seem to be working...please feel free to change it!
This is only a guide...do what works best for you and the scouts coming to your station.

One other thing to keep in mind - some stations will be visited by all ranks. That means you may have 6 year olds through 11 year olds and may have to simplify or intensify the methods to meet the skills and knowledge of all the scouts.

Thanks again - we are glad to have you as part of Harford Day Camp!

Station Procedures

- *Read your schedule and BE PREPARED!*
- Monday: stations begin at 10:15am; Tues-Fri: stations begin at 9:15am
- Usually 2 dens at a time (max 24 youth),,,,,but there could be more
- Greet dens as they arrive. Ask for their cheer!!!
- It is very important that you start and end on time!
- Each time limit is only 45 minutes. Late arrivals CANNOT stay late; it interferes with the overall schedule. If available, they can come back at a free time.
- Execute the station with energy and enthusiasm! Let the scouts do as much for themselves as possible. It doesn't need to be perfect, they just need to Do Their Best!
- Remember the Alamo, um BEADS!! One bead/scout/participation. (*Beads can be given to the den leader for distribution.*)
- Take a breath, then prepare for your next group.

• *Last station of the day*

Organize station items in the bag/container provided and store where directed. In case of inclement weather, take your station items to the nearest shelter where directed.

Complete a Station Evaluation (inside front cover). Return to the Admin tower or the Crouse Building.

*****Last station of the week*****

Dispose of anything no longer useable: please recycle when appropriate.

- Inventory your station (See the inventory sheet in the front pocket of the station guide)
- Return all items that you can to Crouse/trailer staff.
- You are ALWAYS invited to help pack up the camp!

Station Overview

Discussion and hands-on activities will complete this station.

This is a hands on active station. Experiments are meant to be fun and help enhance our medieval theme. Each scout will view the demonstration and then complete 4 potions (experiments). Each potion will have its own station and leader. Watch the time and have scouts rotate to another station after about 7 minutes. While the scouts are recording their observations, leaders can prep for the next group. Cups, bottles and canisters can be emptied and reused for the next group.

Core Values:

Responsibility - using the supplies carefully and as intended

Courage - trying new things

Set-up:

Open station boxes and lay out ingredients for each potion and for your demonstration:

For demonstration locate the Purple Paradox Demonstration. Follow the instructions to mix the solution in the test tube just before the group arrives.

Station 1: Milk, foam plates, "dragon scales" food coloring, cotton swabs, "wizard spit" dish liquid

Station 2: Clear plastic cups, jiffy indicator powder prepared (directions are on the indicator powder and gallon milk jugs for mixing), fill containers labeled "acid" with vinegar, fill the containers labeled "troll bile" with laundry detergent and the containers labeled "Phoenix tears" with ammonia. Place a plastic spoon in each and an eye dropper in the ammonia. Put out craft sticks to use for stirring.

Station 3: Film canisters (one for each scout). Fill containers labeled "dragon tears" with water. Fill containers labeled "dried dandelion root" with Alka Seltzer tablets broken in half.

Station 4: Empty plastic water bottles (one for each scout). Peroxide to fill each bottle with $\frac{1}{2}$ cup before the scouts arrive. Food coloring bottles, "dragon scales". Dixie cups (one for each scout). Fill container labeled "swamp water" with warm water (needs to be warm for the yeast but not hot or it will kill the yeast). Plastic funnels. Containers of yeast, labeled "wormwood". Measuring spoons (tablespoon size). Craft sticks and pie plates. Bucket to fill with clean water to use for rinsing any accidental exposure to peroxide.

Break-Down

- 1) Tightly seal all ingredient containers and return to bins. Empty out any water and completed experiments.
- 2) Rinse out any bottles, cups and canisters so they can be re-used the next day.
- 3) Please assure that all bins are closed tightly and place under the tent for the night.
- 4) In the event that rainy weather is expected, please take the bins into the Crouse building for the night.

Station Objectives:

Each scout will: have fun preparing several potions and watching the chemical reactions that result. You will be playing the part of the instructor, Merlin! You will need at least one volunteer to oversee each of the potion stations. There are copies of the directions for each leader to use. Each scout can take their potions book home with them so they can try the experiments again if they'd like.

"Welcome young knights. I'm Merlin, trusted wizard of King Arthur. Today you will be learning some of my many tricks that may aid you when you are facing an enemy or even a dragon. My magic is used to amaze, help me escape when need be or to cause a distraction. Let's start with an easy demonstration of my amazing abilities!"

Demonstration: Purple Paradox

Direct the scouts' attention to the test tube of "clear" liquid. Ask, "What color is this liquid?" They will tell you it is clear or colorless. "Are you sure? I like the color of royalty much better." Give the bottle a shake and it will magically turn purple. Set it back down. Tell the boys that you have changed your mind (the liquid will soon change back to colorless). After the oohs and aahs, tell them that they too will be learning how to mix some magical potions with some astounding results.

Say, "Each of you will receive a "Potions Handbook" to experiment with. All the ingredients have been gathered from all around the Realm and assembled for you." (direct their attention to the ingredients on each table). Continue with, "Once you receive your potions booklet and your safety glasses (which you must wear at all times), you should work your way through each of the potions carefully measuring your ingredients and following the directions. None of these ingredients is meant to be put into your mouth so please keep that in mind at all times. Once you have successfully completed a potion, record what happened in your potions book and then your group will move on to another potion's station".

Divide the group into 4 and send one group to each of the potion stations to begin. Each station should be led by at least one volunteer. Den leaders may need to lend a hand too. Wander around looking magical and offering advice and praise!

Station/Potion 1: Dancing Unicorn Milk

Instructor's Guide: Pour enough Unicorn milk (*Milk*) in the plate to completely cover the bottom to the depth of about 1/4 inch. Allow the milk to settle. Add one drop of each of the colors of dragon scales (*food coloring*) close together in the center of the pool of milk. Dip one end of the cotton swab into the wizard spit (*dish soap*). It's important not to stir the mix. Gently touch the end of the cotton swab into the colors and hold it there for a few seconds. The Unicorn milk will dance sending the colors all over the plate.

Activity 2: Magical Rainbow Elixir

Instructor's Guide: Gather 3 glasses and fill each glass half full with basilisk venom (*jiffy juice indicator*). To change your venom red, add 2 spoonfuls of acid (*vinegar*) to one of the glasses and stir. To turn your venom green, add a spoonful of troll bile (*laundry detergent*) to the second glass and stir. Try adding a dropper full of Phoenix Tears (*Ammonia*) to the third glass and stir.

Activity/Potion 3: Exploding Doobalockers

Instructor's Guide: This experiment needs to be done simultaneously by the scouts so that everyone is away from the table at the same time. Have them read through the directions and then guide them step by step so that everyone's' explosion happens about the same time.

Remove the lid from the canister and put a teaspoon of dragon tears (*water*) into the canister. Now you have to act quickly...drop in one dried dandelion root (*half of an alka seltzer tablet*) into the canister and snap the cap onto the canister (**make sure that it snaps on tightly.**) Quickly put the canister on the table **CAP SIDE DOWN** and **STEP BACK** at least 6 feet. About 10 seconds later, you will hear a POP! and the canister will launch into the air!

Caution: If it does not launch, wait at least 30 second before examining the canister. Usually the cap is not on tight enough and the build up of gas leaked out.

Activity/Potion 4: Expanding Ooze

Instructor's Guide: Bottles should be prepared ahead of time with $\frac{1}{2}$ cup peroxide in each. Hydrogen peroxide may irritate skin and can irritate eyes, so put on those safety goggles and tell the kids to be careful not to spill or touch the liquid. **Buckets of clean water are available just in case.**

Add 4 drops of your favorite color dragon scales (*food coloring*) into the bottle. Add 1 tablespoon of Wizard Spit (*liquid dish soap*) into the bottle and swish the bottle around a bit to mix it. In a separate small cup, combine 3 Tablespoons of swamp water (*warm water*) with a 1 Tablespoon of powdered Wormwood (*yeast*) and mix with a craft stick for about 30 seconds.

