## Welcome to The Extremophile Campaign: In Your Home

Thank you for participating in The Extremophile Campaign: In Your Home project! We’re excited to collaborate with you!

By exploring extreme environments at home (think super hot places like the dishwasher or really cold places like your air conditioner drip tray), you may discover new, previously unstudied microorganisms. These microorganisms may have special talents, such as the ability to fix CO2 in low-nutrient environments, or the ability to live and thrive in a severely dry environment.

One of the observations of microorganisms you shared with CitSci.org has been identified by our project scientists as important for sampling and analyzing using cutting-edge DNA sequencing technology. Use this guide to collect and ship a sample of your microorganisms to the team. If you have any questions about the sampling process, please email \_\_\_\_ or use the forum (<https://citsci.org/projects/the-extremophile-campaign-in-your-home/forum>). Thanks for taking the time to collect and send us this sample! We’re excited to see what you’ve discovered.

### In Your Kit

In your sampling kit, you will find:

1. This letter (Sample Collecting Instructions)
2. A gift for you to keep as a thank you for participating in the project!
3. 2 pair of gloves (optional use)
4. Vials, labeled with Your CitSci username and WHERE you will be sampling (this should match the information you provided when you submitted your observation(s) on CitSci)
5. A metal scoop / scraper
6. A disposable pipette
7. Return materials
   1. A return shipping envelope with prepaid return shipping label
   2. Double-nested ziploc bags with paper towels to absorb any leaks
8. A Sample Use Permission Letter

## How to Collect Your Sample

1. Open your kit and **read ALL of the instructions** below before you begin. We’ve included helpful tips for successful sampling in addition to the steps below.
2. Put on the gloves (this is to prevent contamination of the sample) and take out one test tube, double-check the label. Open the tube. Try not to let anything touch the inside of the tube lid (set it down inside up if you need to).
3. Use the disposable scoop / scraper in your kit to transfer your sample material into the tube. We need between 1ml and 40ml of sample material to conduct sequencing. If you can, please put as much as possible in the tube but do not exceed the 40 ml line near the top. If you don’t have enough sample material to get to the 40 ml line, that’s okay. We’d rather have a smaller sample than no sample at all!
4. **If your sampling location is water-based (example: from your hot water heater)**: Then, fill the remainder of the tube to the 40 ml line with water from the same place you sampled from.
5. **If your sampling location is not water-based, stop here. DO NOT ADD TAP WATER TO THE SAMPLE. This will mess up your results.**
6. Gently shake the sample down to the bottom of the tube. Make sure there are no bits of your sample along the top edges of the test tube where the cap screws on.
7. Screw the cap back on the test tube as tight as you can.
8. Place the tube into the ziploc back with the paper towel (the paper towel is there to absorb any possible leaks during the shipping process). Seal up the ziploc bag.
9. **Put the ziploc bag with samples** and **the cleaned sampling scraper** into the return envelope (the one with the prepaid return label).
10. Sign the Permission Form and add it into the return envelope. The signed permission form is very important! Without it, we cannot use your sample.

NOTE: Do your best! Not every step may go perfectly and that’s okay! We have methods to account for common ‘accidents’ that may happen during the sampling process. But if something unusual happens - like maybe your dog decides to lick the inside of the tube when you're setting up to take your sample - use a different tube from your kit or email \_\_\_ at \_\_\_ and we’ll help you troubleshoot your situation. We’re here to help!

## SAMPLING TIPS

* Do your best to keep your sampling gear clean.
* Do not touch the inside of the tube or the inside of the cap for the tube.
* Try not to touch the sample with anything but the metal scoop/scraper in your kit.
* If you have multiple samples, go through all the sampling steps with Sample 1. Then go through all the steps again for Sample 2. Clean your metal scoop/scraper with dishsoap and water before using for a new sample.
* If the sample material is already in a tank of water (think water heater tanks, toilet tanks, etc), you may be able to stick your hand into the water with your test tube and open the test tube under the water so it sucks the material right into your tube. You can screw the cap back on the tube underwater or above the water.
* For some sample locations, you may be able to use the tube itself to scrape the material into the tube (for example if the sample is on a pipe or tube under water).