



Water Filtration Tutorial and Guide

AUTHOR

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DESCRIPTION

This step-by-step tutorial explains how to use the water filtration system. Details include photographs for each step.

GRADE LEVEL

6
7
8

SUGGESTED STANDARDS CONNECTIONS

NGSS

MS-ESS2 Earth's Systems

CONTENT TOPICS

Earth Science
Environmental Science
Science

Water Challenge Tutorial and Guide

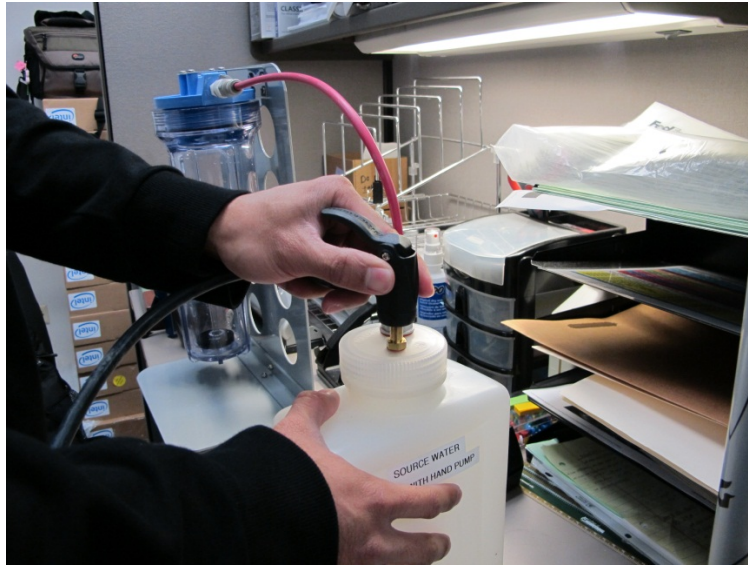
1. Unscrew the base of the top reservoir and place the sediment filter inside. Screw the base back to the lid tightly.
2. Do the same with the bottom reservoir but placing a carbon filter instead.
3. Make sure both the top and bottom reservoir are tightly secured. Use the tightening wrench as necessary.



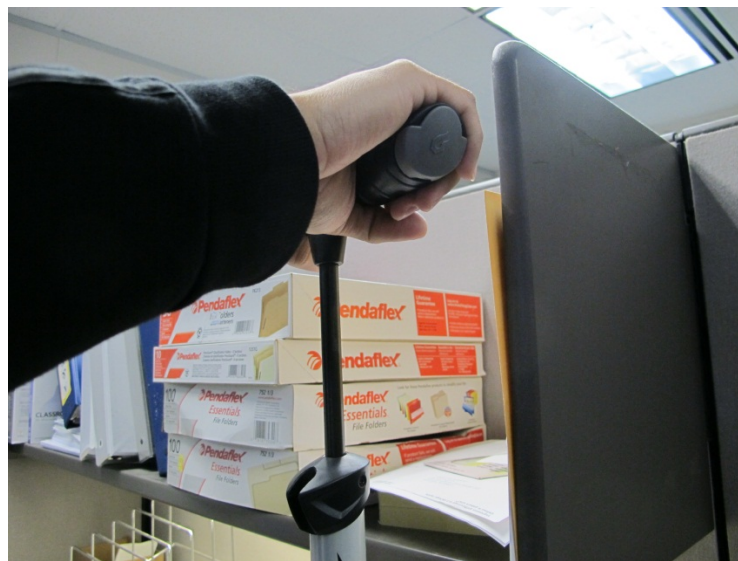
4. Fill the source water jug and connect the water jug's outlet pipe to the top reservoir's intake.



5. Connect the bicycle pump's valve to the water jug.



6. Place the hand-cranked unit's bottle under the outlet pipe of the bottom reservoir for the clean water.
7. Start with a slow short pump. It does not take a lot of pressure from the pump for the water in the jug to move through all the filters. Let the water flow and just pumping occasionally. It is important to note that new filters tend to take a little time to soak before a smooth stream of water happens.



8. Remove the rubber shield from the UV bulb in the crank lid. Place the crank lid on top and screw the bottle to the lid tightly.
9. Turn the UV hand-crank filter upside down and start turning the crank. Build up your speed until crank turn loose. A red indicator light will flash if your speed is slowing down, increase your speed and the light will disappear.



10. Turn the bottle right side up and unscrew the crank lid off. Turn the UV pen filter on and place it inside the bottle. Keep the pen inside until the timer ends and a happy face shows in the display.

