

# Outdoor Learning at Home

## Water Filtration

**Group Size: Any**

**Time: 30 min**

**Setting: Outdoor**

### OVERVIEW

The student will study the act of filtration through an engineering mindset.

### LEARNING OBJECTIVE

Students will:

- Engineer their own filter through problem solving tactics

### WHAT YOU NEED TO KNOW

Filtration is a process by which a substance becomes more clean, or pure.

### WHAT YOU NEED

- Pencil
- Paper
- Jar or cup of tap water
- Bowl to filter water into
- All other materials are to be chosen by you
  - Gather things that may help you filter dirt out of water
  - Example: bandana

### INSTRUCTIONS

How do people get safe water to drink? What must happen to water before it is safe to drink? You are going to engineer your own water filter.

1. Gather your materials and go outside
2. Scoop some dirt into your water so it is all dirty.
3. Build your filter over the empty bowl.
4. Pour the dirty water through the filter so it ends up in the bowl.
5. Is the water clear?

6. Keep making a water filter until you have the clearest possible water.
  7. DO NOT drink the water. There could be contaminants still in your filtered water that would make you sick.
  8. Make sure to clean up when you are done. Pour the water into the earth.
- What other materials would have been helpful to have for your filter? What extra steps are missing to make your water safe to drink?