

# JR-ENGINEERS

# WATER FILTER

**Make your own water filtration system to learn about purification!**

## INSTRUCTIONS

**STEP 1:** Cut the bottom off of your water bottle.

**STEP 2:** Mix a cup of dirt with a cup of water, stir and let sit for 5 minutes.

**STEP 3:** Crumple up one coffee filter and stuff into the top of your water bottle.

**STEP 4:** Now place 6 cotton balls on top of that.

**STEP 5:** Pour a cup of rice into the bottle.

**STEP 6:** Place another coffee filter around the top of the bottle and fasten with a rubber band.

**STEP 7:** Now place your bottle into a glass, top down, and pour your dirt water combo into the bottle. Did it do a good job of filtering the dirt?

## SUPPLIES

Water bottle  
Scissors  
Coffee filters  
Rubber band  
Cotton balls  
Rice  
Dirt  
Water  
Glass

## THE SCIENCE

**This method of using rice, coffee filters, and cotton balls is not safe for drinking, but it gives you an idea of how water filtration works.**

Our local water departments use many different methods to give us safe drinking water, and filtration is just one of them. Filtration systems use many different layers or filtration, such as charcoal, sand, fibers, even plants. Water filtration is the process of removing or reducing the particles, bacteria, algae, viruses, and other contaminants to produce safe and clean water.

