

STEM ACTIVITY

Rescued!

Total Time: 25 minutes
In Class Time: 15 minutes

You will need:

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- Plastic 2-liter bottle
- Water
- Cup
- Dirt
- Sand (“play sand” or ‘sandbox’ sand—not “kinetic sand” or the like)
- Cotton balls (real or synthetic)



STEP 1: Dump some dirt into a cup of water and stir it. This is your dirty water.

STEP 2: Remove the label from a 2-liter bottle. Cut the top of the bottle off about a quarter of the way down. Remove the cap, then invert the top and rest it in the open top of the bottle. This will be your funnel for filtering dirty water into the bottle.

STEP 3: Gather the children. TEACH: In our story, Chris and Joy help bring a water filtration system to people who need clean water. Let’s make our own filter!

STEP 4: Gently insert a cotton ball into the neck of the funnel. Pour a layer of sand—about a half inch (13 mm) thick—into the middle of the funnel over the cotton.

STEP 5: Slowly pour the dirty water into the funnel and let it filter through the sand and the cotton. (Be patient; it will filter slowly.)

STEP 6: Examine the results. The filtered water is not fit to drink, but should be noticeably clearer. If desired, try other combinations of filter materials (cloth, pebbles, etc.) and compare your results.