

DIRTY WATER MADE CLEAN

Grades: K-5

Materials: Clear two-liter bottle with the bottom cut off, cotton balls, sand or coffee filters, rocks, pebbles or gravel, dirty water (e.g., water mixed with mud or dirt).

Water Mission invites you to join us in building future leaders who are ready to tackle the global water crisis. The Education Initiative is a program for students that includes fun and engaging lessons, activities, and worksheets. For more educational activities, visit watermission.org/education-initiative.

Discuss: What would you do if you did not have clean drinking water? If you were thirsty, would you drink dirty water? How would you try to make the water cleaner and safer?

Filtration is a process where dirty or polluted water is poured through filters to help clean it. During this activity, you will pour dirty water through different filters to remove the dirt. As your water trickles through the different layers of filters, it will look cleaner.

Directions:

1. Provide children with a clear two-liter bottle with the top curved portion cut off.
2. Turn the top portion upside down and set it into the bottom of the bottle to act as a funnel.
3. Lay a coffee filter in this funnel and follow with layers of the chosen filtering materials (e.g., cotton, sand, gravel, etc.).
4. Pour dirty water through the filtering material, allowing children to watch how the water that comes out looks cleaner.

Explain:

Even though the water looks clean, it may still have microscopic germs or bacteria we can't see. This means it may still be unsafe to drink. Around the world, some germs and bacteria can give kids a bad stomach ache, but some can even be deadly.

So, Water Mission does not just make water clean, it makes water **safe** to drink. Water Mission uses different technologies that use filtration, disinfection, and other methods to produce safe drinking water for people around the world.

One of Water Mission's technologies is the Living Water Treatment System (LWTS). The LWTS uses filters (like the ones you used), plus garnet and anthracite (both found in nature), to filter water from a river, lake, or spring. This takes out the dirt. Then the LWTS uses chlorine to remove bacteria, making the water safe to drink.



Water Mission is a Christian engineering nonprofit that builds sustainable safe water solutions for people in developing countries, refugee camps, and disaster areas. Since 2001, Water Mission has served more than 8 million people in 60 countries, sharing safe water and the message of God's love. Charity Navigator has awarded Water Mission its top four-star rating 15 years in a row, a distinction shared by only 1% of the charities rated by the organization. To learn more, visit watermission.org.

Our vision is that all people have safe water and an opportunity to experience God's love.