

## Filtration Fun

### Resources

- Large plastic bottles
- Sharp knife
- Cotton wool or coffee filters
- Sand
- Gravel
- Stove or kettle

### Instructions

- This activity is about learning how to purify water using homemade water filters.
- Take the plastic bottle and cut the top off it about halfway up the side of the bottle.
- Unscrew the lid and discard.
- Place the cotton wool or coffee filters in the neck of the bottle.
- Place the top half upside down inside the bottom half. You may need to hold it or tape it in place.
- Fill the top half with around an inch of sand.
- Fill the top half with around 2 inches of gravel.
- Slowly pour some dirty water through it. Muddy water with bits of rock or plant debris is best.
- If the filter is done correctly, the water that filters through the bottle should end up clear.
- The water should then be boiled for 2 minutes to completely remove bacteria before drinking.

### Variations

You could experiment with using different materials to see if some materials work better or worse for filtering.

### Leader notes

- Ensure you adequately supervise young people while they are using stoves and sharp knives.
- This activity is a good way to highlight to young people the different challenges faced by cultures around the world. You could do further research about the effects of dirty water and charities which do work in this area.

