



# SuperYak's Adventures at Home

## Water Filters!

### Materials Needed:

- 2L clear plastic bottle with labels removed
- Paper towels / coffee filters / bandana
- Filter materials (as many as are available to you)
  - Cotton balls, clean sand, big and small clean rocks, sticks
- Scissors
- 1 cup of dirty water
  - Water mixed with dirt, glitter, crushed dead leaves, coffee grounds, cooking oil, and/or styrofoam pieces
- Timer

### SuperYak's Reminders!

- Be kind, be safe, and try your best!
- The water filters that we are making today illustrate infiltration in the earth, but they will not turn your dirty water into water that is safe to drink!

### Instructions

1. Ask an adult to help you cut the 2L bottle in half, then put the top half back on upside down (it should look like a funnel now) to start your filter
2. Put a coffee filter at the bottom of the filter
3. Add your filter materials one at a time in layers
4. Get your timer ready
5. Pour the dirty water into your filter and time how long it takes for it all to pass through your filter

**Be sure to record your favorite part(s) of the activity in your SuperYak's Adventures at Home Journal! Parents/Guardians can submit photos to SuperYak's Adventures at Home Blog through CY's website.**



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### SuperYak's Extra Challenges

- Build another filter with a partner, taking turns adding different filter materials!
- Remove the filter materials and coffee filter, then add a new coffee filter and only use one type of filter material
  - What part of the dirty water makes it through the filter when only one filter material is used?
- Try changing the order that the filter materials are layered (bigger filter materials will catch bigger impurities), and check:
  - How does this change how *fast* the water gets filtered?
  - How does this change how *well* the water gets filtered?
- Research the water cycle to learn more about infiltration (which we modeled in our Water Filters activity today!)

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