

# Don't Use It All Up

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**Next Generation Science Standards:** Earth and Human Activity: K-ESS3-3

## **Materials Needed:**

- Clear container with 4 cups of tinted water
- Marker or masking tape
- Small pieces of sponges (at least one per student)
- Second container for sponges



## **Directions:**

1. Measure about 4 cups of tinted water into the container. The container represents the Earth and the water represents all the available freshwater.
2. Students can brainstorm ways in which we use water (drinking, cleaning, cooking, bathing, irrigation, recreation, etc.).
3. Using a marker or the masking tape, mark the water level on the outside of the container. Each student should drop a sponge into the container as they state one demand that they made on water today. Leave the sponges in the container. Ask if anyone notices a change in the water level.
4. After the students have dropped all the sponges in the container, remove them without squeezing. Set the sponges in the other container. Look at the first container and note the dramatic change in the water level. Mark the new water level on the outside of the container.
5. Help students understand that the demands on natural resources (such as water) of a large population have more effect than the demands of a small one. Students can answer the following questions:
  - What happens to the water level as we remove all the sponges?
  - What will happen if we keep using water at this rate?
  - What can we do about this situation?
  - How can we conserve or give water back to the environment?
6. Squeeze sponges back into the original container, one at a time, while each student names a way to reduce the amount of water. Notice the slight change in water level. Watch the water level rise as more students add water to the container.
7. When everyone has put the water from their sponge back into the container, note the water level. It will be lower than when the lesson began. Ask:
  - Why doesn't the water level return to the original mark even after all the sponges are squeezed out?
  - What are some resources that are renewable?
  - Describe one thing you have learned from this demonstration.