



MINI RAIN BARREL

Purpose: To encourage water conservation at school and home by capturing tap water that normally flows down the drain

Principle: Rainwater may be collected in large 55 gallon barrels to be used for many outdoor purposes. The mini rain barrel (used inside the school or home) uses the same principles of the large rain barrel by capturing usable water that would normally be allowed to flow down the drain.

Essential Questions:

What's the purpose of a mini rain barrel?

How does a rain barrel help with water conservation?

How can I use a rain barrel at my house?

How can I use a rain barrel at my school?

Supplies:

1 – 2.5 gallon water container with handle on top and small faucet on bottom

1 – 2 feet piece of tubing

1 – 2 feet piece of tubing (optional for overflow)

1 - tube of plumber's glue (optional for overflow)

Procedure:

1. Place the mini rain barrel beside your sink.
2. If there is no hole in the top of the water container, use a sharp knife or scissors to make a hole a little larger than 3/4 inch in diameter. (The tubing is 3/4 inch tubing so you don't want the hole to be so large that the tubing will fall out.)
3. Connect one end of the tubing to the water faucet in your classroom. (You may have to purchase an adapter, but the tubing fits most faucets.)
4. Place the other end of the tubing into the small hole on top of the mini rain barrel.
5. Turn the spigot on/off to control the flow of water out of the mini rain barrel. (Be sure to watch the water level. **There is no overflow in this mini barrel; although, you could make a small hole about 1/2 inch from the top and add additional tubing. Seal around the tubing using plumber's glue so it won't leak. Direct the overflow tube back into the sink.)
6. Do not drink or wash hands using the water from the mini rain barrel. This barrel simulates an outdoor rain barrel and should be treated as such.

Application - Conservation Practices:

1. While waiting for water to warm up to wash your face or to cool down to drink from the tap, run the excess water into the mini rain barrel.
2. Use the water from the mini rain barrel to water plants, pets, or use for washing windows, mopping floors, or outdoor chores. Once the water is in the mini rain barrel, do not drink it or use it to wash your hands.

Activity Ideas:

1. **Since the mini barrel has no overflow, ask students to design an overflow pipe and explain their designs. (Note: With real rain barrels, we often set them up in series so that the overflow from one barrel runs into another so that no water is wasted.)
2. Have students draw a diagram comparing the mini rain barrel to an outdoor rain barrel. (Each elementary school will receive a 55 gallon rain barrel. It may be easier for students to make the comparison once they see the 55 gallon barrel in place.)
3. Calculate water savings from allowing water to flow into the mini rain barrel rather than down the drain.
4. Ask students to make a list of activities that they do at home where they allow water to run down the drain. (Some examples may include: rinsing dishes to put into the dishwasher, brushing their teeth, washing their face, waiting for the water to get hot for a bath or shower, etc.)