Rain in A Jar! Part of our virtual water festival, brought to you by the Department of Public Utilities! All week check out our activities by looking for this DPU Droplet Dude.

For our activity today, we're going to make our own rain in a jar. In this we can see some of the parts of the water cycle: evaporation, condensation, and precipitation.



For this you need a clear container, a piece of clear plastic (plastic wrap or a bag), a rubber band, dirt, and sunshine or heat.

plastic

- Fill your container part way with water. If you'd like, add a handful of dirt, or a drop of food coloring.
- Place your plastic over the container and secure it with a rubber band. See the picture on the next page.
- Put it outside in the sunshine. If there's no sunshine, try starting with boiling water (get an adult to help!).
- Check it every 10-15 minutes. Look at the plastic covering the container. What do you notice?
- If you continue to check it, over time you should see the water that has evaporated from the bottom of the container and condensed into bigger and bigger droplets on the plastic. When the droplets get big enough, they fall back to the bottom of the container as precipitation. Then the cycle starts again!
- When the water condensed on the top, did the water look dirty or clean? The water cycle
  helps to clean the water because the dirt does not evaporate. If you use a large
  container for this experiment, put another smaller container in the center under the
  plastic. You can collect clean water here!
- What do you think will happen if you leave it in the sun for a long time? Will the total amount of water stay the same?
- Does the total amount of water on our planet stay the same? Yes! This is why it's important to conserve the water we have. We can't make more!
- Draw and label a picture of how the water cycle works in your container. If it's ok with your parents, send it to us at takeitoutside@peecnature.org

Want to check out some other parts of the water cycle? Check out the additional resources on the main page, including instructions for how to make a water cycle book.







Here's the set up outside in the sun

Below you can see the water condensing after evaporating. Once the drops get big enough, they will fall down as precipitation.





In this example, we used a larger container. In the bottom was dirty water. We put an empty container in the middle. Over time, we collected the clean precipitation.