

Do your kids ask you why it rains? Or maybe how clouds happen? Spend an afternoon teaching them with this easy to do science experiment where you and your kids will make a water cycle in a bag!



This is also a great activity for elementary science classes. Imagine your window covered in your student's shimmering water cycle experiments!

Follow these simple, step-by-step directions to create something fun (and educational) with your kids today.

Step 1: What You'll Need

You need just a few common household items to create your water cycle display:

- Plastic zip lock-style bag
- Permanent marker(s)
- Water
- Blue food coloring
- Clear tape



Step 2: Decorate the Bag

Before you do anything else, decorate your bag!

Use your permanent marker (washable markers will wash right off) to draw a sky in the upper half of your plastic bag. Include clouds and the sun, as they are important elements to the water cycle.



Step 3: Prepare the Water

Next, fill a cup with regular tap water. Then add a couple of drops of blue food coloring to it to make it stand out.

Swirl the cup of water a few times to mix the coloring until it's a nice, solid blue.

Now, carefully pour the water into the plastic bag and zip it closed. Make sure it's nice and tight! You don't want any water to be able to escape.



Step 4: Hang Up the Bag

Once your water has been added to the bag and it's sealed up, it's time to hang it up on a window! Pick a window that gets a lot of sunshine for best results. Cut two long pieces of tape and stick them to the corners of your bag. Then, press the tape tightly to the window - you don't want your bag to fall down!



Step 5: Wait and Observe

Wait a couple of hours and check on your experiment. You should see a change in your bag between two hours and 1 day (depending on the amount of sun and the time of day you started).

Eventually, you will begin to see droplets of water sticking to the side of the bag. Some of these will be up high (in the clouds) while other droplets will be on their way back down (like rain).

Why is this happening? It's because the water in the bag is being heated up against the sunny window. That water turns into a gas through the process called evaporation. In nature, evaporated water vapor goes into the atmosphere, but in our bag, it has nowhere to go, so it ends up sticking to the sides of the bag, turning back into a liquid as condensation. That condensed water then slides back into the pool of water below as "rain".

Keep checking back on your experiment a few times a day, or anytime it's sunny to see the water cycle progress!

With some simple materials and a weekend afternoon, you and your kids can have a great time learning about the water cycle together.