

Use the atmospheric pressure to keep you dry!

Material:



- piece of carton
- water (without gas)
- glass

Instruction:

Fill the glass with water. Make sure that the glass is completely filled.



Put the piece of carton on the glass. It has to cover the entire hole of the glass.



Keep your finger on the carton and turn the glass. Now remove your finger carefully. Make sure that the carton is horizontal.



Explanation:

Usually, when you turn a glass of water, you will pour the water on the floor. The water's weight "falls" like any other weight that you just drop. When you turn the glass and keep the finger on the carton, the pressure of your finger keeps the water in the glass. But now you remove the finger and the water still does not pour on the floor! Therefore something has to replace the pressure of your finger, in order to keep the water in the glass. The air pressure in our atmosphere (atmospheric pressure) presses the carton on the glass and keeps the water.