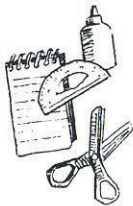


A Water Cycle Chamber

Discussion Question:

When a cup filled with a cold drink is placed in a warm room, what happens to the outside of the cup? Why?



Materials :

Clear 2-liter pop bottle with lid
Lamp
Scissors

Ice in Ziploc® bag
Warm water

Step 1: Have an adult help you cut the top off the clear 2-liter pop bottle. Cut just where the side straightens out. (An adult will insert a knife to make a hole, then use scissors to cut the top off the bottle.)

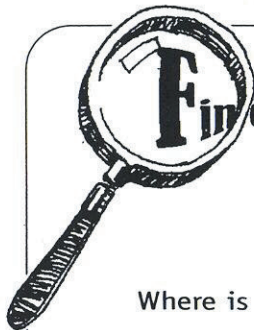
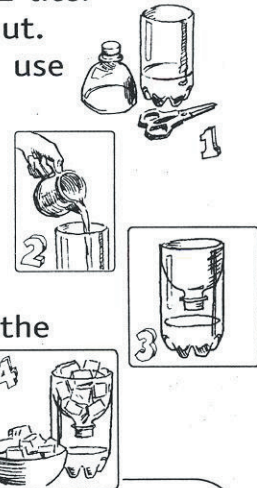
Step 2: Place a cup of very warm water in the bottom part of the bottle.

Step 3: Invert the top of the bottle and place it in the bottom section of the bottle.

Step 4: Fill the inverted top with the bag of ice.

Step 5: Darken the room and observe the chamber using the lamp.

Step 6: Check the bottle over 2 hours time period to observe what is happening inside the bottle.



What does each part of the water cycle chamber represent?

ceiling of the bottle:

ice cubes in the bag:

warm water:

lamp:

Where is water evaporating?

Where and why is water condensing?

Tell what you know about clouds, cold surfaces, and condensation nuclei from this demonstration.