

## Create Your Own Water Cycle (Grades K-1)

**Objective:** Students will learn the water cycle and different states of water.

### California State Standards:

**Science K:** 1b, 1c. **1<sup>st</sup>:** 1.b

**Background:** Water enters the watershed from a three stage cycle that starts when water falls from the sky in a process called precipitation. Precipitation begins when water vapor molecules become too large and heavy to remain in the atmosphere (in the form of clouds) and fall to the ground in the form of rain, snow, sleet or hail. Once precipitation has fallen to the ground, it is collected in large bodies of water such as lakes, ponds, rivers and oceans. Water at the surface of these bodies of water heats up under the sun and evaporates. Evaporation occurs when water transforms from a liquid into a gas, rising up toward the sky. Next, evaporated water condenses in the atmosphere. Condensation transforms water from a gas into a vapor and becomes suspended in the atmosphere; this is visually represented by clouds.

### **Materials:**

- *Water Cycle Diagram (Transparency)*
- Large piece of paper
- Small paper squares
- Clear plastic cups
- Ice cubes
- Electric tea kettle
- Water
- Plastic wrap
- Bucket

### **Prep:**

1. Create Transparency from Water Cycle Diagram

### **Procedure:**

1. Display the *Water Cycle Transparency* to the class.
2. Fill plastic cups halfway with water and place one cup on the student's desk. Explain to the students that this is liquid water, representing the rain and lake water in the picture of the water cycle.
3. Boil water in the kettle. Explain to the students that the steam is water in the form of gas.
4. Give each student some ice cubes and explain to the students that this is water in a solid state. Have them put the ice cubes in their cup of water.
5. Let the ice sit for a few minutes.
6. When the cups start “sweating” explain to the students that this is condensation.



**Further Investigation:**

Fill a bucket with water and put plastic wrap over it. Place the bucket in a warm, sunny place to sit overnight. The next day, students will see droplets of water on the bottom surface of the plastic wrap. Explain to the students that this is where the water has evaporated, then turned back to a liquid.

