Chevron Earth Science on Wheels: Water Cycle

Water Cycle

TEKS for Activities and Presentation

Kindergarten: K.2 (A), K.7 (C)
First Grade: 1.2 (A), 1.5 (B), 1.7 (B),
Second Grade: 2.5 (A), 2.5 (B), 2.7 (B), 2.8 (C),
Third Grade: 3.3 (C), 3.8 (B)
Fourth Grade: 4.3 (C), 4.5 (B), 4.8 (B)
Fifth Grade: 5.8 (B)

Program Vocabulary

Atmosphere, Condensation, Evaporation, Impervious surface, Pollution, Porous Surface, Precipitation, Reservoir, Surface- Run-Off, Transpiration, Watershed

Pre-visit Activity: Water Cycle Observation

Students Will:

- Observe a model of the water cycle
- Verbalize and name stages of water cycle through demonstration

Materials:
Large clear bowl, Small glass. Saran Wrap, Small weight, Hot water, Ice

Prep-work:

- Gather supplies
- Heat water

Procedure:

1. Pour hot water into a clear bowl and place a glass in the center of the bowl.
2. Use the Saran Wrap to cover the bowl. Place an item on the Saran Wrap to weigh it down in the middle over the glass.
3. Place ice over the top of the Saran Wrap.
4. Observe for several minutes and watch what happens.
5. Explain that as the heated water evaporates it will rise and condense on the Saran Wrap, causing the formation of water droplets. The droplets will then run to the center

where they will form larger droplets and drip down in the glass, like precipitation, in the form of rain, falls from the clouds.

Post Visit Activity: Water Cycle in a Baggie

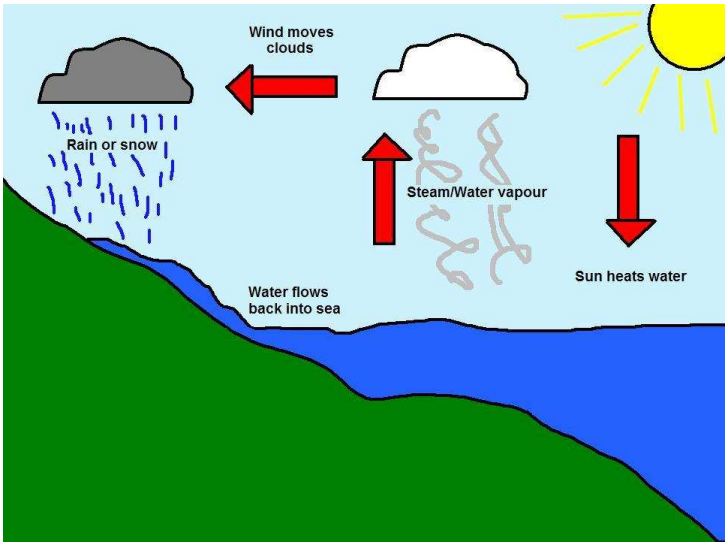
Materials:
Quart size sealable plastic baggies, Masking tape, small paper cups, Black permanent markers, Food coloring, Water, Window that receives at least several hours of direct sunlight per day

Prep-work:

- Gather supplies
- Create an example water cycle baggie

Procedure:

1. Distribute a baggie to each student and instruct them to use a black permanent marker to draw water (lake, stream, etc.), clouds, and arrows to illustrate the water cycle on the outside of the baggie.



2. Have each student fill a small paper cup ½ way with water. Allow them to add a few drops of blue food coloring to the cup and carefully place it in the baggie. They will then seal the baggie.
3. Use masking tape to attach the baggies to the window.
4. Encourage students to observe the baggies at the beginning and record them in their science journals.
5. After several hours allow students to return to the bags. Are there any changes? Encourage students to record new observations in their science journals. Repeat this

process for the next three hours. Allow students to make final observations after 24 hours.

Taking it Further:

1. Ask students to identify the heat source that is driving the water cycle in the baggie.
2. Encourage students to create an illustration of what they observed after the first hour, second, and so on.
3. Ask students to describe what happened to the water.
4. Was the water the same color as when the experiment began? Why or why not?