Sample pages for:

Water Cycle Model Activity Set

SB25175M

Compliments of:

901 Janesville Avenue
Fort Atkinson, WI 53538
www.eNasco.com • 1-800-558-9595

Water Cycle Model

MODEL ACTIVITY SET

THE WATER CYCLE MODEL

Overview

Our water supply is related to an overall series of events often referred to as the water cycle. In this context, the word "cycle" is used to mean a continuous repetition of like events - the movement of water molecules from bodies of water, the land, and living things on the land into the air and back again. To illustrate this process, two modes of presentation are used: a model and a series of study cards.

Focus For This Activity

- ☑ Appreciating the cyclical relationship of materials in the environment.
- ☑ Visualizing the continuous nature of the steps in the natural water cycle.
- ☑ Recognizing the sources of water.
- ☑ Using the inquiry skills of observing, describing, comparing, translating, inferring, and applying.
- ☑ Practicing critical thinking skills associated with explaining, defending, and answering why questions.
- ☑ Emphasizing the three environmental themes:
  - interrelationships of environmental components;
  - cyclical nature of processes;
  - finiteness of resources.

Lesson Sequence

During this activity, each person should:

- observe and describe the demonstration of the water cycle
- relate and associate the demonstration of the water cycle to the natural water cycle as depicted in Study Card pictures 1 through 10 and the water cycle model.

Set up the following demonstration: Pour about an inch and a half of water into a 400 ml beaker and color the water light blue with food coloring. Place the beaker on a hot plate so that the blue water is boiling as you begin the lesson.

Introduce the activity by pointing to the beaker of boiling water and asking:

When we boil water it all goes away after awhile. Where does it go?

Let's see if we can find out where it goes.

Place a second 400 ml beaker over the first (caution: the first beaker will be hot), and tape the two beakers together with masking tape so that the pouring spouts are together, leave the spouts untaped.

Develop a line of questioning to focus on the formation of tiny droplets of colorless condensed water on the sides of the upper beaker, and perhaps a small stream of mist escaping from the spout.

Then say:

As you can see, we have caused some of the blue water to evaporate.

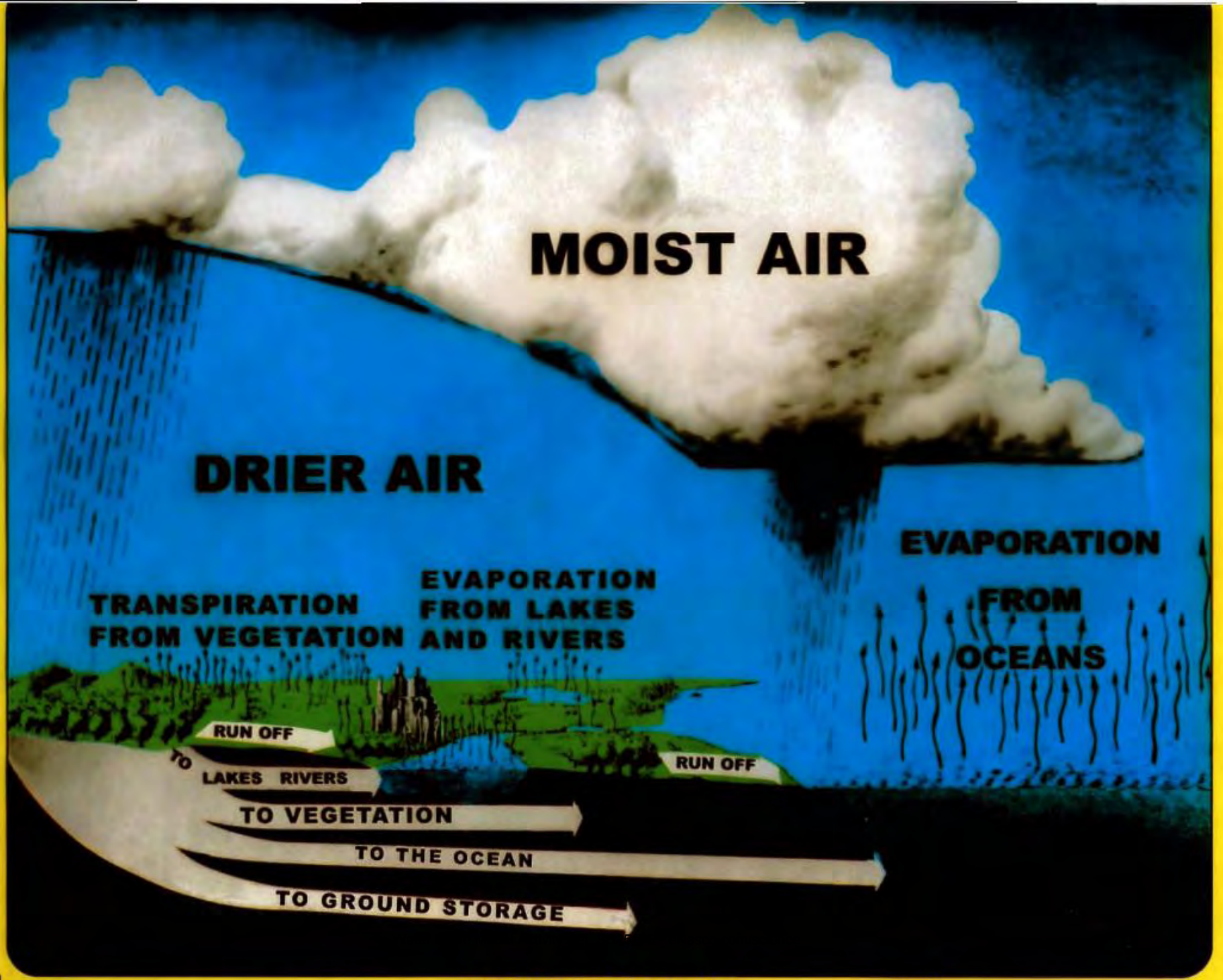
Can you think of some examples of evaporation in your everyday life?

After learners have recalled such things as puddles drying up, wet clothes drying, hair drying, lawns drying out, and plants withering, develop the idea that evaporated water in the air may re-form as mist, fog, or clouds by asking:

What happens to water in the air after it has evaporated?

When water falls back down to earth out of the clouds, what are some of the different forms it can take?

After such things as rain or snow or hail reach the ground, and after the snow and hail melt, where do they go?


MOIST AIR
DRIER AIR
EVAPORATION
FROM
OCEANS
TRANSPIRATION
FROM VEGETATION
EVAPORATION
FROM LAKES
AND RIVERS
RUN OFF
TO LAKES RIVERS
RUN OFF
TO VEGETATION
TO THE OCEAN
TO GROUND STORAGE