



Activity 4. A model water cycle

Aim

To model the processes involved in the water cycle.

Materials required

- Bunsen burner
- Stand
- Beaker
- Round bottom flask
- Water
- Ice cubes

Procedure (see Figure 1)

1. Half fill the beaker with water.
2. Place the beaker on the stand with the Bunsen burner directly underneath.
3. Heat the water until it is steaming.
4. Place the ice cubes in the round bottom flask.
5. Position the flask on top of the beaker.
6. Observe any cycling (repetition of change) in the model.

Discussion

1. What parts of the experiment represented clouds, rain and lakes?
2. Explain the terms *evaporation*, *condensation* and *precipitation*.
3. In nature, what would heat the rivers, lakes and sea?
4. Is there any water lost from the natural cycle? Explain your answer.
5. On Figure 2
 - a. Label the clouds, rain, sea, rivers and lakes
 - b. Draw arrows to represent the movement of the water cycle.
 - c. Label condensation, precipitation and evaporation.

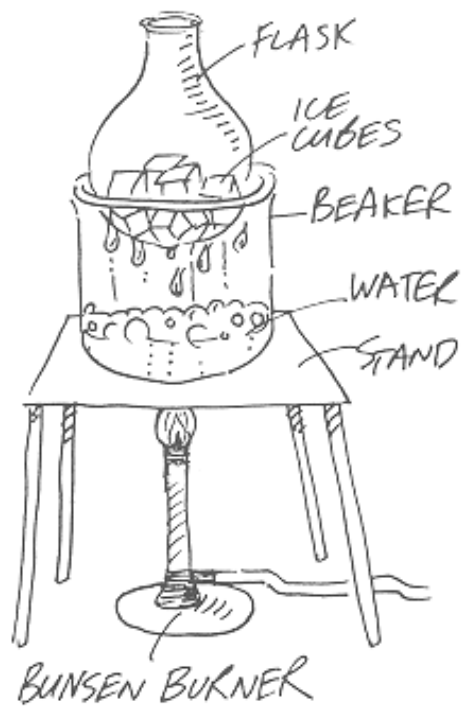


Figure 1. A model water cycle

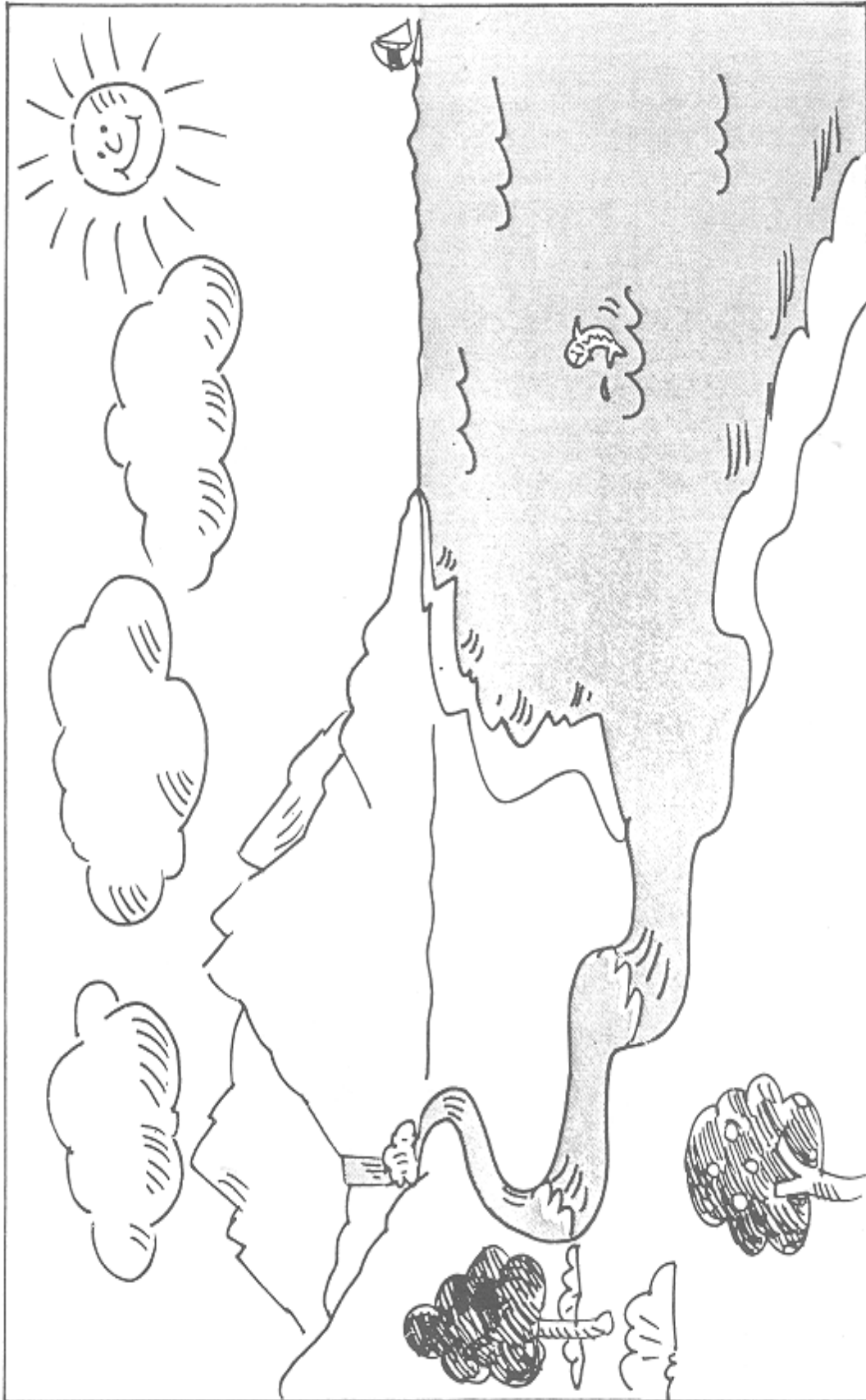


Figure 2. Processes involved in a model water cycle.