Drip, Drip, Drop

Simulation

What's the chance for precipitation? One hundred percent with this soggy simulation activity.

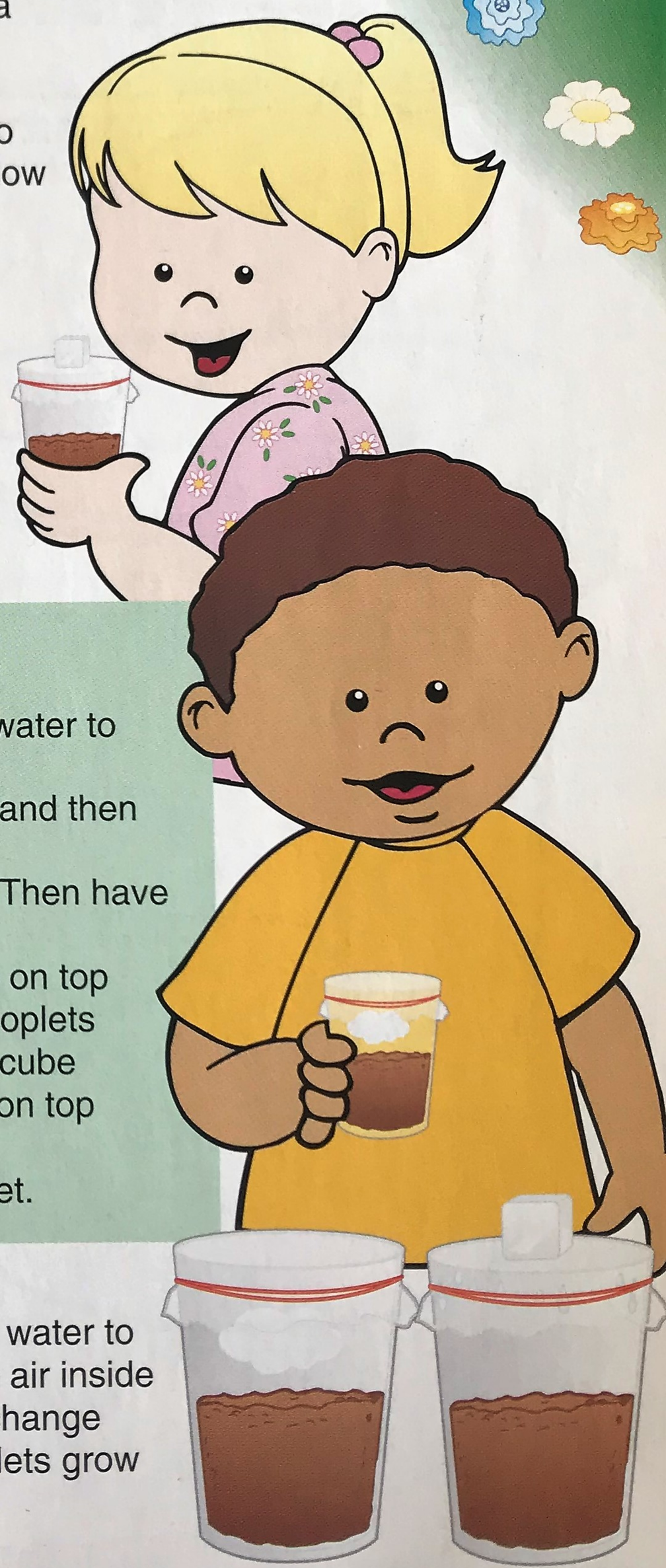
Purpose: To help students understand how rain forms

Background: The sun's heat warms water from lakes, rivers, oceans, moist soil, and plants, causing it to evaporate, or turn into a gas. The evaporated water, called water vapor, rises into the air to form clouds. Warm air can hold more water vapor than cold air. When the air cools, the water vapor turns back into a liquid and raindrops begin to fall.

Getting started: On a cloudy day, take youngsters outside to observe clouds. Discuss the appearance of the clouds and how they form (refer to background information). Then help each small group follow the steps below to complete the activity.

Materials for each small group:

- copy of page 42 for each child
- crayons
- clear plastic cup
- moist potting soil (warmed in a microwave oven for one minute)
- tablespoon
- warm water
- plastic wrap
- rubber band
- ice cube



Steps:

1. Give each group a cup of warmed soil.
2. Have one child in each group add two tablespoons of water to the cup.
3. Help each group tightly cover its cup with plastic wrap and then secure it with the rubber band as shown.
4. Guide students to notice the fog that forms in the cup. Then have each child draw the results on his recording sheet.
5. Have one child in each group gently place an ice cube on top of the plastic wrap. After about three minutes, water droplets will form inside the cup on the plastic wrap. As the ice cube melts, use a paper towel to soak up the excess water on top of the plastic wrap
6. Have each child draw the results on his recording sheet.

This is why: The heat from the soil in the cup causes water to evaporate and turn into water vapor. The ice cools the air inside the cup, and the water vapor begins to condense, or change into a liquid, forming droplets of water. When the droplets grow heavy, they fall as rain.

Suggested book: *This Is the Rain* by Lola M. Schaefer

Name _____

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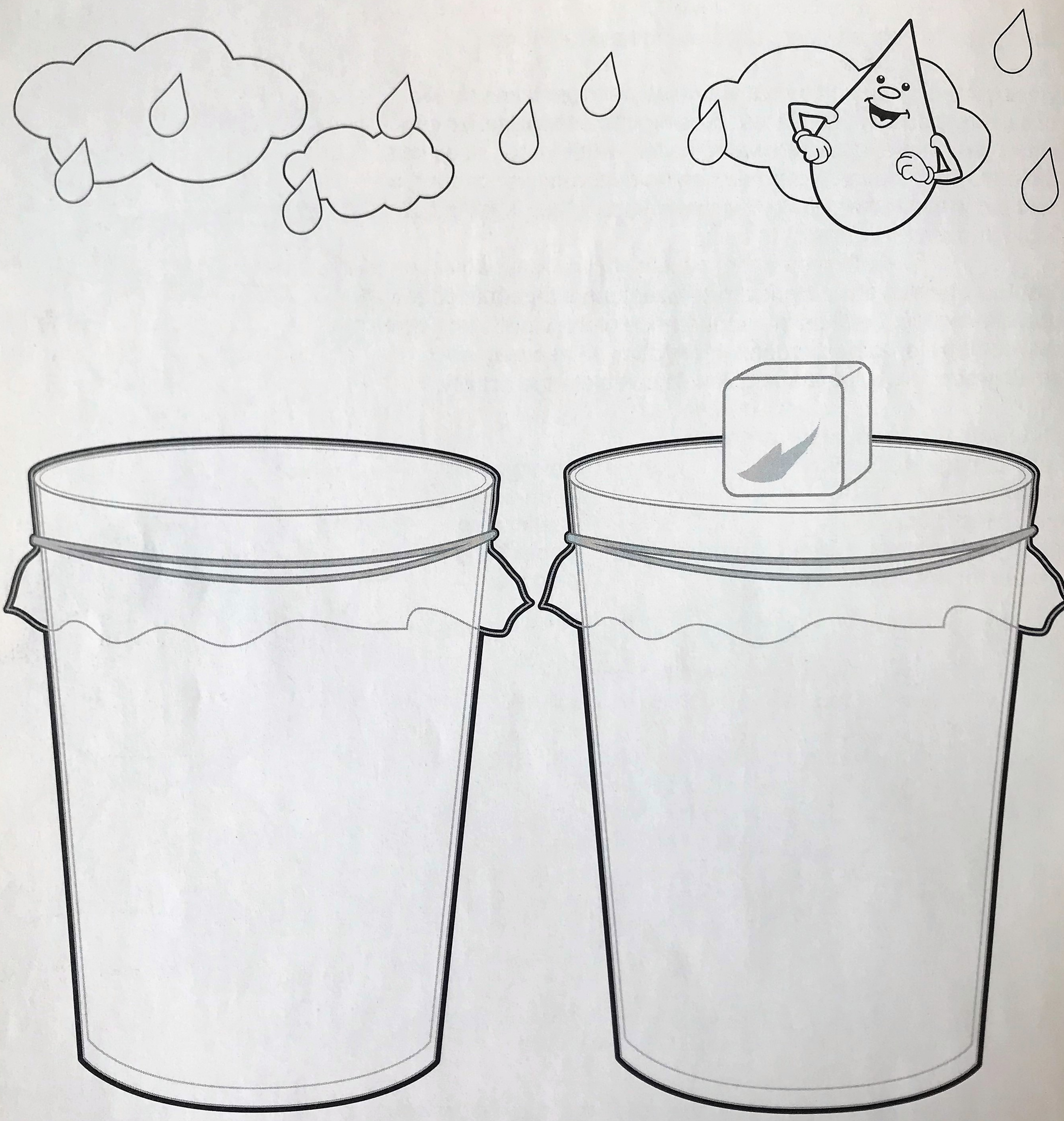
Draw your results.



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