

- 5 Repeat with the remaining groups of students, always so that the cloud papers on the board are touching one another.
- 6 When the dot cloud is complete, let the children go up for a close look. How many droplets (dots) do they see in the cloud? Too many to count! Share with them that each cloud has billions of droplets, which is a lot more than the dots in their cloud! But just like their cloud, the droplets in the air move close together to make the cloud.

ACTIVITY 4

Where Do Puddles Go?

Students try to find out where puddles go, reinforcing their understanding of the water cycle as introduced in Activity 2.



BOOK BREAK

Read *The Cloud Book* by Tomie dePaola. This book describes different kinds of clouds and the weather associated with them. You'll find folk sayings about clouds and weather, too, which students will have fun discussing. Follow up by asking students if they know of any ways to predict the weather. Does someone have a dog that crawls under a bed when a storm is approaching? Has anyone ever heard that cows lie down if it's going to rain?

Materials (for each pair of students)

- * a clean foam meat tray
- * water
- * an eyedropper (or small paper cup)
- * pencils

- 1 Let each pair of students create a puddle on a foam tray. To do this, each student should empty one eyedropper full of water onto the tray.
- 2 One student then traces around the puddle with a pencil.
- 3 Students carefully place their trays on a windowsill and record their predictions about what will happen to the puddles.
- 4 Have students check the trays every half hour to hour. (The warmer the location is, the more frequently they need to check.) Each time students check their trays, they should trace around the puddles in pencil.
- 5 Students will quickly discover that as the puddles dry, they shrink. Ask students where they think the puddles are going. (As the water molecules in the puddle warm up, they move

faster and further apart, turning into water vapor. Review with students that these are the same results as in the rain experiment in Activity 1.)

6 Your students can expand their understanding by setting some puddles in sunny, warm locations and others in cool places that are out of direct sunlight. Which puddles dry up (evaporate) more quickly? They will discover that those puddles in the warmer, sunnier locations dry up more quickly.

***Note:** This would also be a fun activity to take outdoors after a rain. Let students trace around puddles on the playground with chalk. Are all of the puddles the same size? Why do puddles form in different sizes? Have students predict which puddles will dry up first. Revisit the puddles several times to check their predictions. If the puddles are on sidewalks or a paved play area, students can draw chalk circles around the puddles every half hour or so and watch as they get smaller.*