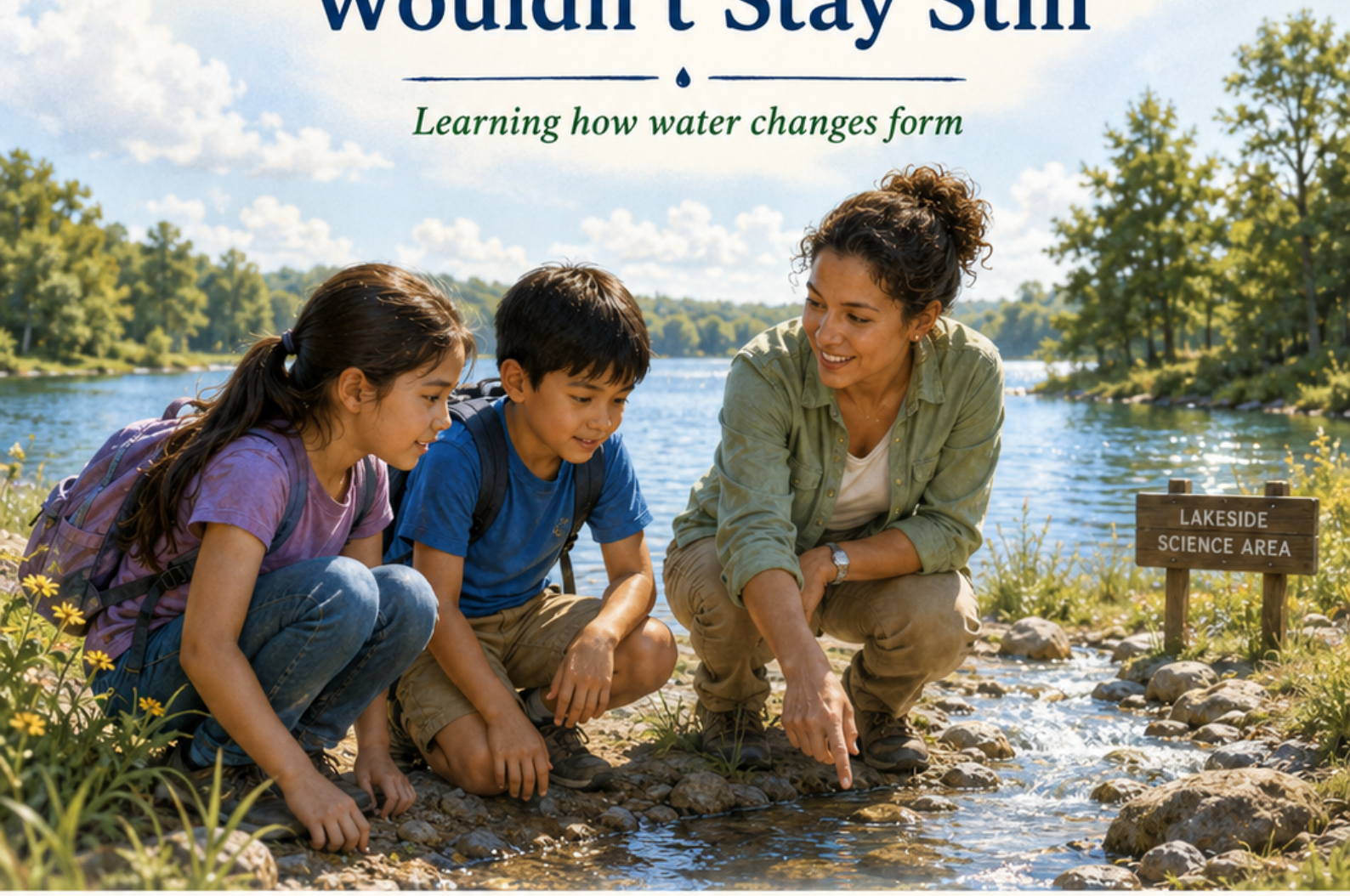
The Water That Wouldn't Stay Still

Learning how water changes form



Mira crouched by the stream and watched the water sparkle in the sun. "It's moving," she said.

Jay dipped his hand in. "It can be calm, or fast, or still," he said. "It never stays the same."

Ms. Flores smiled. "You're right. Water is always changing. Today, we're going to investigate three big changes water can make—evaporation, condensation, and sublimation."

Mira tilted her head. "So water can disappear into the air? Turn into clouds? Even become ice without being liquid?"

"Exactly," said Ms. Flores. "Water is full of surprises. It never likes to stay the same for long. Let's solve the mystery of the water that wouldn't stay still!"

Today, Mira, Jay, and Ms. Flores will explore how water changes form in amazing ways.

Science Fables

Evaporation at the Surface



Ms. Flores pointed to the sun warming the water. "The sun gives energy to the surface," she said.

"Then what happens?" Mira asked.

"Some water molecules at the surface gain enough energy to break free," said Ms. Flores. "They change from liquid water into invisible water vapor and float up into the air."

Jay looked at the lake. "So the water disappears from the top, not from the bottom!"

"Exactly," said Ms. Flores. "This happens in lakes, rivers, and streams all the time."

Mira thought for a moment. "It's not like cooking, when bubbles rise everywhere."

"Right," said Ms. Flores. "Boiling happens at a very high temperature, and the whole water bubbles. Evaporation happens at any temperature. Only the surface water evaporates."

Jay smiled. "So the sun is always helping water change."

Evaporation can happen from the surface of lakes, rivers, and streams even when the water is not boiling.

Science Fables

When Water Comes Back

Learning how water changes form



The next morning, Ms. Flores brought a cold jar into the classroom. Tiny drops of water covered the outside.

"What happened?" Mira asked.

"Water came back," said Ms. Flores. "This is called condensation."

She explained, "Water vapor is a gas. When it rises into cooler air, it slows down. The gas changes back into tiny liquid droplets."

Jay touched the jar gently. "So the water in the air turned back into liquid on the cold glass?"

"Exactly," Ms. Flores said. "That's condensation."

She gave examples. "You see condensation every day. Dew forms on grass when nights are cool. Windows fog up when warm, moist air touches cold glass. Even clouds are made when water vapor cools high in the sky and turns into tiny droplets."

Mira smiled. "So water keeps changing, but it never really leaves."

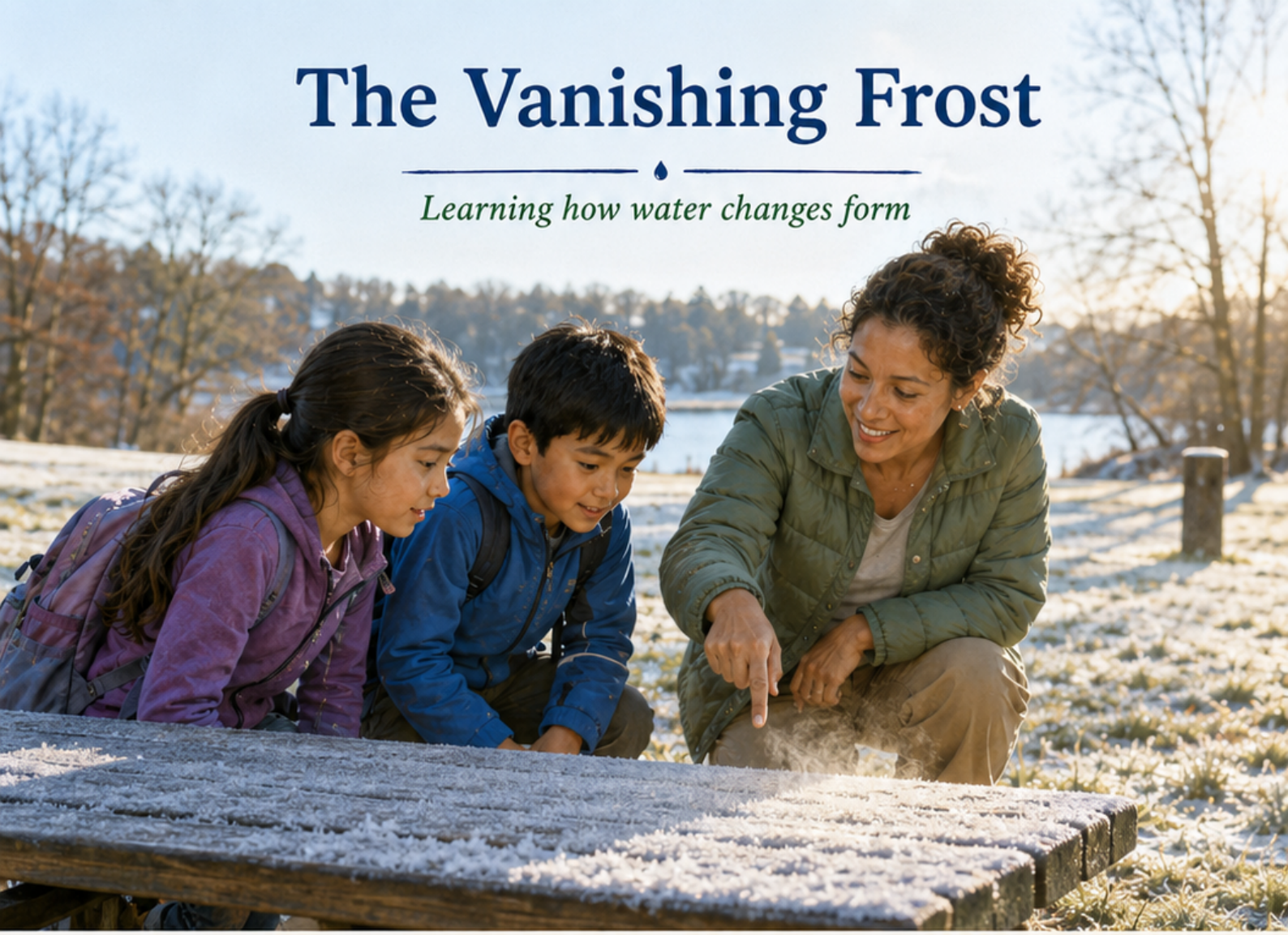
Ms. Flores nodded. "It moves, it changes, and it comes back."

Condensation is when water vapor cools and changes from a gas back into liquid droplets.

Science Fables

The Vanishing Frost

Learning how water changes form



The air was cold when Mira, Jay, and Ms. Flores arrived at the park. Frost sparkled on the grass and on the bench.

"Look," said Ms. Flores, pointing to the frost. "As the sun rises, look what happens."

The children watched. Tiny crystals disappeared right before their eyes. The frost got smaller and smaller—then it was gone.

"Where did it go?" Mira asked.

"It didn't melt," said Ms. Flores. "It changed form. This frost went from a solid straight into water vapor—the invisible gas in the air."

"So it skipped being liquid?" Jay asked.

"Exactly!" said Ms. Flores. "That change is called *sublimation*."

"Does snow ever do that too?" Mira asked.

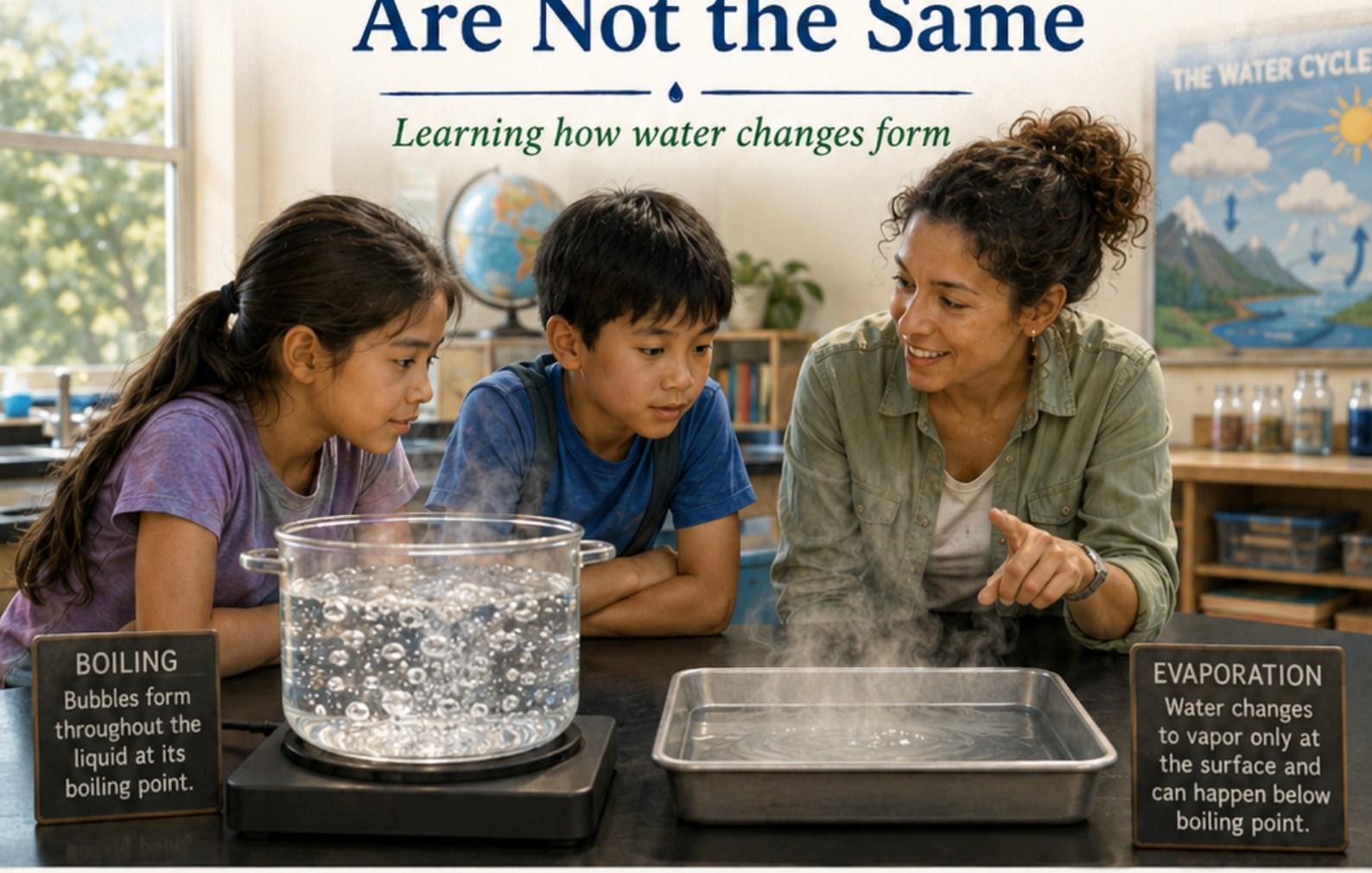
"Yes," said Ms. Flores. "On cold, dry days, snow can shrink and disappear without turning to water. It becomes vapor and floats away."

Sublimation is the change where a solid, like frost or snow, turns directly into a gas without becoming a liquid first.

Science Fables

Boiling and Evaporation Are Not the Same

Learning how water changes form



Back in class, Ms. Flores set up two experiments.

"On this side," she said, pointing to the pot, "the water is boiling. It's hot enough to bubble everywhere!"

She pointed to the tray. "On this side, the water is just sitting here. You can't see bubbles. That's evaporation."

Mira leaned closer. "So what's the difference?"

Ms. Flores explained. "Boiling happens throughout a liquid when the liquid reaches its boiling point. Bubbles form everywhere in the water and rise to the top. It's fast!"

Jay looked at the tray. "Evaporation happens only at the surface. It can happen even when the water isn't that hot."

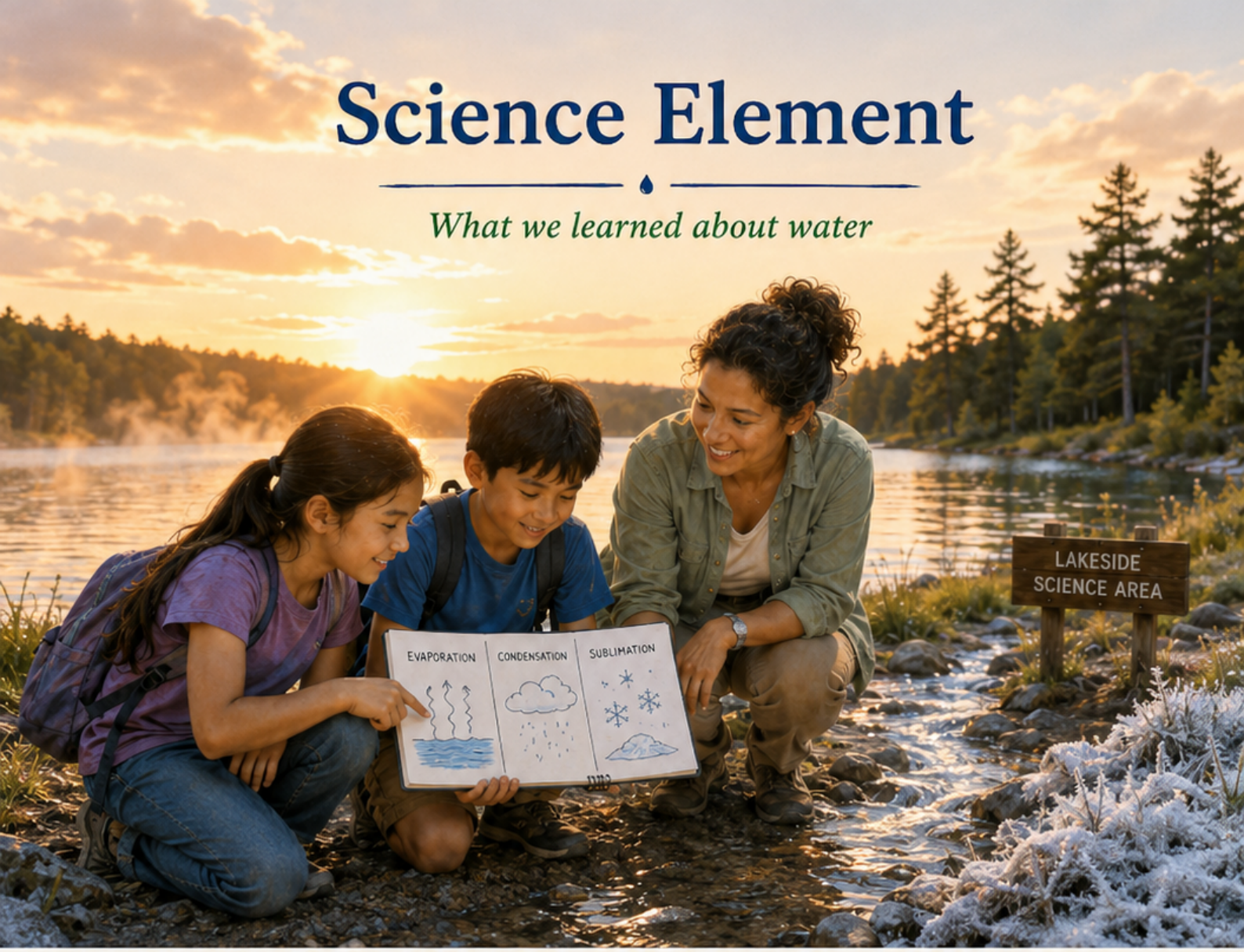
"Exactly," said Ms. Flores. "That's why puddles can disappear on a cool day, but water won't boil unless it's hot enough."

Boiling happens throughout a liquid at its boiling point and is fast, while evaporation happens only at the surface and can happen below the boiling point.

Science Fables

Science Element

What we learned about water



Today, Mira, Jay, and Ms. Flores discovered that water is always moving and changing form. Here's what they learned:

- **Evaporation:** Water changes from a liquid to a gas and rises into the air from the surface of lakes, rivers, streams, and even puddles. The sun's energy helps this happen.
- **Condensation:** Water vapor cools in the air and changes back into tiny liquid droplets. These droplets gather together to make clouds, fog, dew, and rain.
- **Sublimation:** Water can change directly from a solid (ice or snow) to a gas vapor without becoming liquid first. This happens on cold, dry, or windy days.
- **Evaporation vs. Boiling:** Evaporation happens at the surface and can occur at any temperature. Boiling happens throughout a liquid when it reaches its boiling point, like water bubbling in a pot on the stove.

Water is always changing, and we can watch it in amazing ways—right where we live. Keep looking up, down, and around. Science is everywhere!

Science Fables