## PD Leader Master
## Practice Identifying Strategies 4 and 5 in Student Work

Students have two cups of water. One cup contains room-temperature water, and the other cup contains water with ice. Water droplets have formed on the outside of the ice-water cup.

Decide whether each of the following student statements is making an observation, analyzing/interpreting an observation, constructing an initial explanation, or constructing an argument. **Note:** A student statement may include more than one of these science practices. Use the STeLLA strategies booklet and the Quick Reference Tools for Strategies 4 and 5 to formulate a rationale for your decisions.

| Student Statements | Observation | Analysis/ Interpretation (Patterns) | Constructing an Explanation | Constructing an Argument |
|---|---|---|---|---|
| 1. "I see tiny bubbles in the water." | X | | | |
| 2. "The cup looks all cloudy with tiny drops of water on the outside." | X | | | |
| 3. "Most of the water drops are forming at the top of the cup where the ice is located, not at the bottom." | X | X | | |
| 4. "I think the drops of water on the outside came from water inside the cup that leaks through tiny holes in the cup." | X | | X | |
| 5. "I disagree. I don't think water could be leaking out of the cup, because the water in the cup is red, and the water on the outside is clear." | | | | X |
| 6. "I agree that water isn't leaking out of the cup, because why would it be leaking out only at the top of the cup and not the bottom?" | | | | X |
| 7. "I think water is evaporating out of the cup as water vapor into the air and then getting attracted to the cold cup and latching onto the side of it as liquid water." | | | X | |
| 8. "Molecules are coming together to form liquid water drops on the cup." | | | X | |
| 9. "The ice-water cup has water droplets on it, but the room-temperature cup doesn't." | X | X | | |