High-Quality Science Classroom Observation Tool

Looking for Evidence of Three-Dimensional Learning

Classroom: _____ Grade Band: ☐ Elementary ☐ Middle ☐ High

1. What are students trying to figure out?

Write the phenomenon, problem, or question students are investigating.

_____

2. What evidence did you observe?

Student Thinking/Engagement

☐ Students are **wondering, questioning, and identifying** what they still need to figure out.
☐ Students are **using models** to explain, represent, or test their ideas.
☐ Students are making decisions about how to **gather evidence** to answer a question.
☐ Students are looking for **patterns** and using **data** to make sense of results.
☐ Students are **using numbers, measurements, calculations, or data** displays to support their reasoning.
☐ Students are **explaining *why* or *how*** something happens using evidence and science ideas.
☐ Students are **evaluating ideas, making improvements**, and considering how well solutions meet criteria and constraints.
☐ Students are **comparing ideas, defending claims with evidence**, and respectfully critiquing reasoning.
☐ Students are **gathering information, evaluating sources or evidence**, and clearly communicating their thinking.

Student Discourse

☐ Students talk more than the teacher.
☐ Students explain ideas to one another.
☐ Students respectfully disagree using evidence.
☐ Students build on classmates' ideas.
☐ Multiple voices are heard.

Teacher Moves

☐ Teacher asks open-ended questions.
☐ Teacher presses students for evidence.
☐ Teacher facilitates rather than tells.
☐ Teacher allows productive struggle.
☐ Teacher listens to student thinking before responding.

Classroom Culture

☐ Students are engaged in meaningful work.

☐ All students have opportunities to participate.

☐ Mistakes are treated as opportunities for learning.

☐ Students collaborate effectively.

☐ Learning is driven by sensemaking rather than simply completing tasks.

3. Evidence I Saw

What did **students** SAY or DO?	What did the **teacher** SAY or DO?

4. Reflection

One strength I observed

_____

One question I still have

_____

One coaching opportunity

_____

Key Takeaway: If I walked into this classroom for only five minutes, what evidence convinced me that students were actively making sense of science?