



# Lab/Lesson Debrief

## Applying the Six Stars in Your Classroom

### ★ Reflecting on Teaching & Learning

#### *Notes and Ideas:*

Reflecting on teaching and learning is essential to science education. Effective educators regularly “debrief” lessons as part of their teaching reflection. Some take notes and do a more formal debriefing...others do it in their minds. Either way, it’s important to reflect on the success of a lesson in accomplishing the lesson’s goals and objectives, decide on adjustments and adaptations that should be made, and then try the modifications. The debriefing process should include reflection on one’s teaching as well as what is learned in the classroom.

Use this form to reflect on how a lesson addresses the effective pedagogies that are part of APS Six Star Science. If you already regularly reflect on your lessons, it may prompt you to consider additional points. If you don’t regularly reflect after teaching lessons, it may give you a framework to use in the future. After a few times, many teachers find that “debriefing” becomes a useful habit and quick process, both when trying new materials and reassessing old ones.

### ★ Student-centered Instruction

Does this lesson include an ***open or guided inquiry activity*** that fosters skills in:

- ★ Developing questions and testable hypotheses;
- ★ Making accurate observations; and/or
- ★ Data analysis and conclusions?

#### *Notes and Ideas:*

### A Closer Look at Teaching Strategies

#### ***Student-centered***

- ☐ Data analysis, collection, interpretation
- ☐ Problem-based learning
- ☐ Field laboratory experience/Field trips
- ☐ Laboratory experiment
- ☐ Learning cycles
- ☐ Hypothesis testing
- ☐ Hypothesis development
- ☐ Active learning/discovery learning
- ☐ Cooperative learning/small group instruction
- ☐ Critical analysis/Critical thinking
- ☐ Hands-on learning
- ☐ Inquiry-based learning
- ☐ Tutorial or self-directed instruction
- ☐ Peer teaching
- ☐ Problem sets/word problems
- ☐ Learning centers

#### ***Teacher-centered***

- ☐ Data analysis, collection, interpretation
- ☐ Problem-based learning
- ☐ Field laboratory experience/Field trips
- ☐ Laboratory experiment
- ☐ Learning cycles
- ☐ Hypothesis testing
- ☐ Lecture
- ☐ Large-group instruction
- ☐ Class/group discussion
- ☐ Demonstrations






### **Valuing Diversity**

Are **equity/diversity strategies** utilized? For example, does this activity make cultural connections and/or address gender-related issues?

*Notes and Ideas:*

Does this lesson include a **variety of modalities for learning**? For example,

-  Tactile (hands-on experiments);
-  Visual (observations, posters); and
-  Auditory (poster presentations, lab reports).

*Notes and Ideas:*

### **Integrating Technology to Enhance Learning**

How does this activity **integrate** technology? Are there opportunities to develop student skills in both technology use and information management?

*Notes and Ideas:*



## **Authentic Assessment**

Does this activity assess students ***content and process skills***? Does the assessment highlight both achievement and areas for improvement?



*Notes and Ideas:*

### **A Closer Look at Assessment**

- |   |  |
|---|--|
| <input type="checkbox"/> Peer evaluation  | <input type="checkbox"/> Essay tests                     |
| <input type="checkbox"/> Performance-based assessment (e.g. lab reports or presentations) | <input type="checkbox"/> Group testing                   |
| <input type="checkbox"/> Portfolios   | <input type="checkbox"/> Multiple-choice/true-false test |
| <input type="checkbox"/> Self-evaluation  | <input type="checkbox"/> Open book tests                 |
| <input type="checkbox"/> Computer-assisted testing  | <input type="checkbox"/> Standardized tests              |
|   | <input type="checkbox"/> Verbal tests                    |

## **Up-to-date Content**

Consider the following points about the content of the activity:

-  Based on accurate scientific information
-  Integrates recent research findings

*Notes and Ideas:*



### In Your Classroom...

It's rare that an activity you learn in a workshop or pick out of a book fits your teaching situation exactly. Teachers are masters at adapting labs for their classes. Often a lab/lesson becomes a jumping off point for further exploration. How might you adapt this activity for your classes? What extensions do you envision for this activity?

| Adaptations for Your Classroom | Possible Extensions |
|--------------------------------|---------------------|
|                                |                     |

### Your State Science Standards...

Does this activity address any of your state standards? Review the state science standards for your grade level and note which content and process standards this activity addresses.

*Notes and Ideas:*