You See, But You Do Not Observe: Focusing Third Graders' Scientific Observation-Making

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DeLeT Cohort 8
Research

• Three Lessons
  – Salinity and Density
  – Temperature and Density
  – Blubber

• Lesson Plans
• Video Tape
  – My Introduction to the Lesson
  – Student Work
Comment Types

1. Everyday Observations (Eberbach and Crowley, 2009)
   • “That’s bright red!”

2. Transitional Observations (Eberbach and Crowley, 2009)
   • “The red is much more dense.”

3. Inferences (Hanuscin and Park Rogers, 2008)
   • “This is like a swimsuit for when you go scuba diving.”
   • “The opposite colors all sank.”
In what ways can I support the transition from students' everyday observations to more scientific observations and inferences?
• Non-scientific
  – Everyday Observations

• Scientific
  – Transitional Observations
  – Inferences

Salinity
- 71%
- 29%

Temperature
- 33%
- 67%

Blubber
- 55%
- 45%
Findings

1. Type of Focus Question
2. Small Group vs. Whole Class
3. Experiment Complexity
Significance

1. Focus question
   - Specific language
   - Key Words
2. Small Group
   - Discussion time
   - Everyone talks
3. Complexity
   - Different steps
   - Small details
What Next?

• How do I help my students notice the difference between everyday and transitional observations?

• “A Lemon of a Lesson” (Minogue, 2008)

• What value is there in everyday observations?
Sources

“From Everyday to Scientific Observation: How Children Learn to Observe the Biologists World.”

“Learning to Observe and Infer.”
Hanuscin, D, & Park Rogers, M. (2008)

“A Lemon of a Lesson.”