

Science Teaching and Learning: The Big Picture

Standards:

- National Science Education Standards
- California Science Content Standards

Content:

- Science Concepts
- Scientific Thinking Processes
- Scientific Inquiry Cycle (scientific method)

Pedagogy:

1. *Textbook/Lecture/Demonstration*: Teacher-driven, learners are passive, teacher as lecturer, focus on learning facts and information.
2. *Hands-on Science*: Teacher-driven, learners are actively engaged, teacher as facilitator, focus on learning concepts and processes.
3. *Science as Inquiry*: Student-driven, learners explore their own questions and misconceptions, teacher as facilitator, focus on learning concepts and processes.