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.