

## **Science IDEAS Model: Overarching Principles**

1. Learning more about what one is learning promotes deeper conceptual understanding
2. Engaging learners in multiple activities/experiences promotes deeper conceptual understanding
3. Focusing all learning activities upon big ideas, core concepts and concept relationships that have broad applicability across similar and other content areas promotes meaningful understanding
4. Using Science IDEAS teaching strategies/routines provides a methodology for implementing the six elements of the model
5. Accessing and archiving student prior knowledge serves as the basis for *all* learning

## **Means for Addressing the Overarching Principles Professional Development Modules**

1. Prior Knowledge
2. Propositional Concept mapping
3. Reading Comprehension
4. Science Activities
5. Writing/Journaling
6. Assessment
7. Multi-Day Unit/Lesson Planning
8. Fidelity of Implementation
9. Teacher Leadership/Coaching/Support/Mentoring