Rural Science Teaching Project: Conceptual Overview

**Explorations:** Role of Forests in Earth Energy Dynamics

Next Generation Science Standards (NGSS):
- LS1: From Molecules to Organisms: Structures and Processes
- LS2: Ecosystems, Interactions, Energy, and Dynamics

Common Core State Standards for English Language Arts & Literacy (CCSS-ELA):
- RST1: Textual evidence
- RST2: Central ideas or conclusions
- RST4: Meaning of domain-specific words
- WHST1: Discipline-focused arguments
- WHST2: Informative/explanatory texts

Content-Area Literacy:
- Analysis and Interpretation to comprehend scientific texts and materials
- Vocabulary knowledge and academic language across scientific reading and writing demands
- Writing to Learn (WTL) strategies for understanding science content and developing academic writing skills

Connections to Practice and Student Learning Impact:
- NGSS Crosscutting Concepts: Patterns, cause and effect, energy and matter, stability and change
- NGSS Science and Engineering Practices: Developing and using models, analyzing and interpreting data, constructing explanations and designing solutions, engaging in argument from evidence
- Literacy Strategies for understanding science: Asking questions to monitor comprehension, word knowledge skills, understanding text features for reading and writing, developing writing fluency and genre knowledge
- Integration of NGSS and CCSS with curriculum and activities, increased understanding of Smarter Balanced assessments